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PACIFIC RURAL PRESS

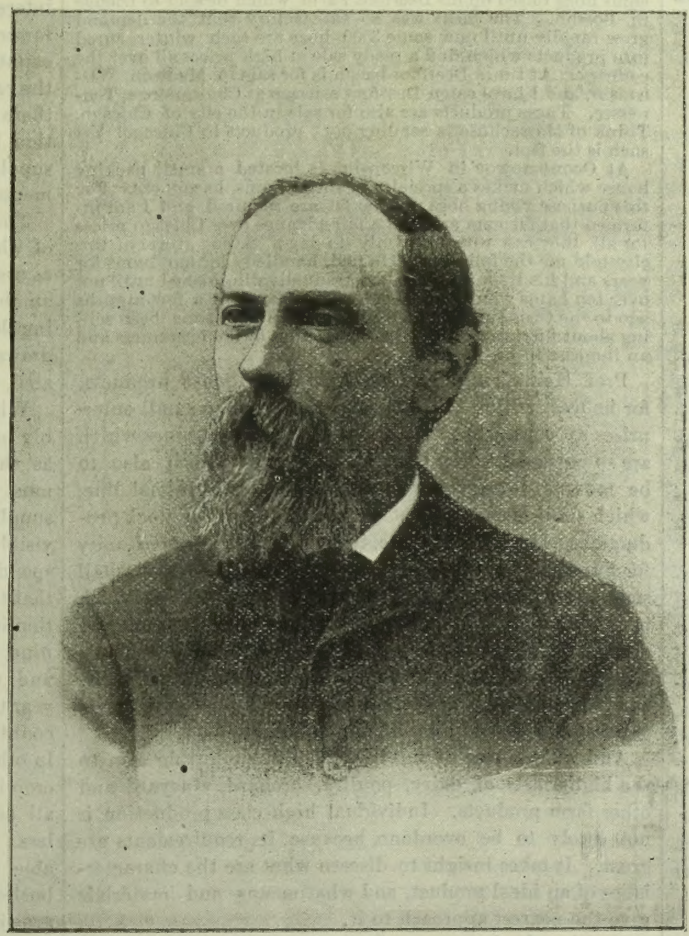
Vol. XLIV. No. 1. 90710 SAN FRANCISCO, SATURDAY, JULY 2, 1892. THE DEWEY PUBLISHING CO., Office, 220 Market St.

The Professor of Agriculture at the State University.

The bright and kindly face which adorns this page will be instantly recognized by many RURAL readers in all parts of the State, and the name written beneath is the one which is most frequently mentioned in connection with California agriculture in the household and in the public gathering. We are glad to have the opportunity to connect the face with the name, for both are alike good, and we are sure it will be acceptable to those who have hitherto been able only to honor the name, to admire the manner of man to whom the name belongs. And the opportunity comes in this wise: After nearly 18 years of unremitting service, the Regents of the State University granted Professor Hilgard one year's leave of absence for rest and foreign travel, and last week he and his family took their departure. In his absence, we bring to the attention of our readers certain phases of his life and work, which are not perhaps widely known here, and which, in the progress of his active labors among us, it did not seem so fitting to recall. It is not our intention to allude at length to the facts best known to Californians; to his coming here at a time when the relations between the agriculturists and the university were somewhat strained, because, perhaps, of mutual misunderstandings, and of his signal success in winning for the university new interest and favor, by his personal acceptability, by his earnest and honest zeal in the agricultural interest, and by the exceptional originality and ability which characterized his work. Nor is it necessary to enlarge upon his success in building up the agricultural department of the State University, and in undertaking agricultural experiment station work so early that California can claim priority in efforts which are now progressing in all the States and Territories. These facts are known to most of our readers, as are also the extent and variety of his agricultural researches, which have furnished a basis for many industries and a motive force in others. It is rather the personal history of the man and the features of his work which have attracted widest attention abroad, as well as in California, that we shall endeavor to present.

Eugene W. Hilgard was born in Zweibrucken, Rhenish Bavaria, on January 5, 1833, of distinguished parents. His father becoming dissatisfied with the Government, resigned the chief justiceship of the court of appeals and emigrated to America, settling on a farm near Belleville, Ills., where Eugene had a thorough schooling in all the details of agriculture, and where he received a superior education from his father. When 16 years old he went to Europe, and studied at Heidelberg, Zurich, and at the Academy of Mines at Freiberg, in Saxony, taking the degree of Ph. D. at Heidelberg, in 1853, at the age of 20. After two years in Spain and Portugal, he returned to America, in 1855, to take charge of the chemical laboratory of the Smithsonian Institution, and lectured on chemistry at the National Medical College. In 1858 he was appointed chief geologist to Mississippi, having, however, been connected with the geological survey of that State for some years previous. As State geologist his work was vigorously pushed forward, and in 1860 was printed his report on the Geology and Agriculture of Mississippi, though not actually published until after the war. No other State report contains so much original matter, presented in such a clear and orderly manner, as this. Up to the time of the publication of this report, the whole subject of the cretaceous and tertiary of the Gulf States and of their soils was, with the exception of the information contained in the two reports of Tuomey in Alabama, practically in darkness. In the light of Prof. Hilgard's Mississippi report, the study of the cretaceous and tertiary formations of the other Gulf States becomes a comparatively easy task.

In 1860 Prof. Hilgard made a second trip to Spain and married, at Madrid, the daughter of Col. Manuel Bello of the Spanish army. During the war, Prof. Hilgard was mainly assigned to the duty of preserving the collections of the University of Mississippi at Oxford, continuing also the office work of the survey, so far as his connection with the Confederate "Nitre Bureau" permitted. He took a prominent part in scientific matters connected with the Confederate army, and at the close of the war resigned as State geologist to become professor of chemistry in the University of Mississippi. His interest in geology did not cease upon becoming professor of chemistry, and many of his most important contributions to the science of geology were made during the period from 1865 to 1873. We need mention only his papers on the Quaternary Formation of the Gulf Region, his Geological Reconnoissance of Louisiana, his articles on the Mississippi River and its Delta and Mudlumps, and his Geological History of the Gulf of Mexico, all of which are authorities on the subjects of which they treat.



PROF. E. W. HILGARD OF THE STATE UNIVERSITY.

In the Mississippi report, the soils of the State are for the first time adequately treated and this, the beginning of a long line of study and investigation of the chemical and physical properties of soils, continued up to the present time and still in progress. Some of the results of these investigations have been published from time to time, such as Soil Analyses and their Utility, Objects and Interpretation of Soil Analyses, Silt Analyses of Mississippi Soils, On the Flocculation of Particles, etc. These titles will show the position of the author in regard especially to the utility of the chemical analysis of soils, first taken in his Mississippi report, has been consistently maintained through all these years. When the Mississippi report was published, with the exception of Dr. Peter of Kentucky, Prof. Hilgard was about the only scientific man in the United States who held that it was possible to form any reliable estimate of the fertility of a soil from its chemical analysis. In the works above quoted, and particularly in the great work done by him for the tenth census, on Cotton Culture in the United States, the author has demonstrated that the chemical and physical analysis of our virgin soils, properly interpreted, together with accurate observations of the timber growth. and other characters of these soils, in their natural condition, furnish the data from which it is perfectly feasible to ascertain both their agricultural value and their proper treatment in cultivation. Hence, Prof. Hilgard is a warm advocate of agricultural surveys, for the benefit of farmers, and is constantly urging the general government to give proper attention to the bearings of geology upon agriculture, and the study of the soils in their natural conditions, while it is still possible to do so.

One of the results of this long and laborious series of investigations has been to carry conviction to the minds of a number of the scientific men of the country, and at the present time Prof. Hilgard has a strong support both in this country and in Europe, where his work is well known, and as much appreciated there as it is here.

An ingenious worker and expert glass blower, he constructed, himself, much of the apparatus needed by him in his lectures and in his soils' investigations. His apparatus for the mechanical analysis of soils is the best of its kind and appears to have overcome the difficulties which previously made such analyses of comparatively little value. It is largely used in Germany, where that class of careful and thorough-going investigation is more frequently carried on than here.

While Prof. Hilgard was in charge of the chemical department of the University of Mississippi, laboratory work was first introduced as part of the course of instruction in chemistry. This course, though for a long time entirely optional, was taken by a number of students, some of whom have since risen to distinction, and have spread the teachings of Hilgard into other States.

In 1873 Prof. Hilgard accepted the chair of geology and natural history in the University of Michigan; but the climate proving too severe for his health, he accepted the professorship of agricultural chemistry in the University of California; and in the spring of 1875, moved with his family to Berkeley, Cal., where he has since resided.

Prof. Hilgard has been a frequent contributor to the scientific and agricultural press. As may be inferred, he is a man of the people as well as of science, and is an indefatigable worker. His writings are characterized by great force, and clearness of expression, and sprightliness of style that make them all pleasant reading. In conversation he is bright, animated and sympathetic.

Prof. Hilgard is a member of the National Academy of Sciences and of other scientific bodies. He has three times received the degree of LL. D., first by the University of Mississippi, next from Columbia College on the occasion of the celebration of the centennial anniversary of that institution, in 1887, and subsequently, in the same year, the same honor was conferred upon him by the University of Michigan, at the celebration of its semicentennial anniversary.

In behalf of our readers who know so well the value of his life and work we express a sincere hope that his sojourn abroad will give him rest and recreation, and that he will return to us a year hence refreshed and eager for another score of years of California life and effort both of which are heartily enjoyed by him.

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ALFRED HOLMAN.....General Manager

SATURDAY, JULY 2, 1892.

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[NEW THIS ISSUE.]

Bolster Springs—Deere Implement Co.
Fruit Trees, Grape Vines, Etc.—E. C. Clowes, Stockton.
Eureka Fence—California Fence Co.
Raisin Machinery—Fresno Agricultural Works, Fresno.
Riveted Steel Pipe—Abendroth & Root Manufacturing Co.
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Dividend Notice—German Savings and Loan Society.
Loan Wanted—John F. Byxbee.
Shorthorn Bulls—Robert Ashburner, Baden.
Improved Egg Food—B. F. Wellington.
Sheep—C. H. Dwinelle, Fulton.

☞ *See Advertising Columns.*

The Week.

The weeks are falling to the dead level of midsummer, but it is a monotony of activity, not of idleness. The fruit is pouring from the orchards in three steady streams; to the overland trains, to the canneries and to the drying grounds. For weeks and weeks to come, these courses will run, and, during a similar period, in the fruit regions of the interior, the sun will rise, glare and decline with scarcely a cloud to obscure it.

Even on the coast there will be long stretches of sunshine. Compilations made by the Weather Bureau last week show that during the last 15 years the greatest precipitation in July at Sacramento was a "sprinkle" and in San Francisco during 21 years it was less than one-quarter of an inch. And even these were rare exceptions. July in California has always been practically rainless.

The full tide of travel to the Sierra resorts, to the Yosemite and to Alaska has set in. The last of the schools, the two great universities have closed for the summer. Society in large towns and cities is at a standstill. Even politics will be handled lazily. Californians are either too busy or too lazy to do otherwise at present.

What Can Producers Do, Individually?

Is it possible that, as a result of all the honorable and commendable effort which is now being put forth to secure cooperative action among producers in the preparation and marketing of their products, an idea may prevail that individual effort and enterprise cannot succeed; that no man or woman can hope to develop a successful business by individual enterprise and exertion? If this notion should be too widely propagated, it would be unfortunate.

Although it is undoubtedly wise to promote concerted, harmonious and cooperative action among producers, and to secure for producers the commanding position which proceeds from control of ample capital and of a large product, it does not follow that the individual is relieved from doing any enterprising thing in his own behalf which his ability, energy and the character of his product make possible. No matter how great may be the amount and value of produce which may be handled by producers' cooperative associations, there will still remain the opportunity for the development of all the individual, productive and commercial enterprises which we have means and brains to carry forward. These enterprises, too, will add immensely to the wealth and comfort of our people. Any man or woman who can produce something of distinctive excellence, and can give it characteristic style which commands consumers, should not relax a single effort because of the agitation about cooperation.

There will always be gilt-edged products by those who have especial talent and zeal in production and marketing, which will minister to a special and remunerative demand. These will usually issue from establishments which enjoy locations near to good and capacious markets, which give opportunity for the exercise of the personal factors of brain, devotion and enterprise, which would fail of reward in unfavorable location and environment. What need have the producers of butter, eggs or bacon, who sell by yearly contract to clubs or wealthy families, for the creamery or the egg producers' association or the packing establishment? Evidently none; although it can be shown that it is to the advantage of extra choice products that prices of all goods in the same line be well sustained. We have no doubt a similar state of affairs prevails in our fruit products to a certain extent, although possibly not yet so fully developed.

These reflections are suggested by the reading of an excellent letter by Prof. W. A. Henry in the *Breeders' Gazette*, in which he argues that, although the tendency is toward the multiplication and extension of great meat-packing concerns, there is still room for a great number of small concerns developed by individual skill and enterprise. We quote a few of his illustrations:

Near a small city in Wisconsin, lives a farmer who started a few years ago with but a few dollars capital. Beginning in the fall and until spring he prepares sausage, which finds ready sale in his community. This man is thrifty and making money. I am acquainted with a farmer near another city who each year cures several tons of salt pork, bacon and hams, and has no difficulty whatever in disposing of it to city customers at good prices to the satisfaction of both parties. In a still larger way all have heard of Deerfoot sausage, ham and bacon. Years ago Mr. Edward Burnett one fall prepared the meat of eight hogs raised on his Deerfoot Farm, which he sold to friends in Boston. The meat was so satisfactory that the demand grew rapidly until now some 3000 hogs are each winter cured into products which find a ready sale at high prices all over the country. At times Deerfoot bacon is for sale in Madison, Wisconsin, and I have eaten Deerfoot sausage at Chattanooga, Tennessee. These products are also for sale in the city of Chicago. Think of Massachusetts sending pork products to Chicago! Yet such is the fact.

At Oconomowoc in Wisconsin, is located a small packing house which makes a specialty of small hams, bacon, etc. For this purpose young hogs not too fat are required, and I am informed that farmers are paid a fair advance over Chicago prices for all they can turn in. Only to-day a leading grocer of this city told me the following: He had handled Chicago hams for years and his trade in them had gradually diminished until not over ten hams were sold per month. Changing a few months ago to the Oconomowoc hams he has from that time been selling about fifty a month, with satisfaction to his customers and an increase in his profits.

Prof. Henry's mind naturally ran upon meat products, for he was writing with special reference to small enterprises as contrasted with great packing combines which are so powerful in the Central West. We seem also to be moving toward great concerns in the animal line, which shall lead to a great extension of our live stock production. If we attain these, there will still be opportunity for hundreds of small productive enterprises, which shall send out materials bearing the distinctive excellence which is only attainable by individual intelligence, devotion and energy. No matter how great the army, or how heavy the infantry firing, there is still the telling work of the sharpshooter as a factor of success. It is the same in general and special lines of production.

And what is true of meat products is applicable also to the higher arts of dairy, poultry, orchard, vineyard and other farm products. Individual high-class production is not likely to be overdone, because its requirements are great. It takes insight to discern what are the characteristics of an ideal product, and what means and materials give the nearest approach to it.

It takes business sagacity to lay the foundations of a trade and extend it, and without a degree of artistic sense and taste, an acceptable product in some lines cannot be secured. None of these and other essentials to success in the higher productive arts can be attained without more intense personal application to the subject, and often greater personal labor, than need be given to the outturn of the ordinary good commercial product. Any one having these requirements and the will to make use of them need not fear to embark upon the development of an individual line of production. His intelligence will insure style and quality, his business sense will prevent ventures for which there is no field, and his will to labor—why, we have, since classic times, had surety that it is irresistible.

Naturally, individual efforts begin upon small scale enterprises, and wisely so, because points have to be learned by current experience. The higher price which is usually attained for such products is but the fair reward for the greater thought and labor put upon them, and at first this is a great help to the producer with small resources, because it is earnings of the producer himself and his family, and turns to value time which might otherwise be unremunerative. Such efforts are possibly not Californian in spirit, for the Californian prefers an extension-bit, even if a gimlet would answer better. And yet, while we are working hard and zealously for our great enterprises, and may their shadow never decrease, let us not lose sight of the importance of individual effort, or gain the idea that cooperation relaxes individual responsibility among cooperators, or precludes special and incisive effort in one's own behalf.

Favorable Outlook for Wheat.

In cereals the market partakes of the usual midsummer holiday character, when all buying is for near by requirements. Wheat probably has been the most inactive. The slow market in wheat is said to be due largely to fears of operators that the antioption bill now pending in Congress will be passed by the Senate. This bill has been strenuously opposed by dealers in futures, and as strongly supported by organized farmers and persons opposed to anything like gambling. There are many who believe that dealers in options have brought strong bear influences to bear on the markets in this country and also abroad, so as to discourage the passing of the bill. If this opinion is well grounded, then, soon after the fate of the bill is known, more active times can be reasonably looked for, and the markets on this coast assume a bullish tone in conformity to the favorable condition of the money market in old financial centers, as well as to the favorable statistical position of the cereal.

Never within the commercial and financial history of the civilized world has money been in such large supply in leading financial centers with the rates of interest ranging so low as the present time. Loans have been made over night in London at the rate of one-quarter of one per cent per annum, while for three month loans as low as five-eights of one per cent per annum has been accepted. In France and Germany, while the rates of interest are not so low as they are in England, they range lower than at any time within the history of those two countries. At the money centers in the Eastern States the rate of interest ranges very low. With cheap money there should not be any difficulty in promoting a speculation in wheat with the statistical position favoring a supply of the latter barely equal to the world's requirements for the next twelve months.

The old season goes out on comparatively light supplies of wheat in the demand and supply countries. But light as are the supplies they are not felt materially, owing to an absence of speculation. With active speculative trading there is a hoarding of supplies and with a free withdrawal of grain from market an artificial scarcity is created, which soon causes the markets to respond.

While the leading centers for handling grain may possibly have fully as much wheat on hand on July 1st, 1892, as there was the corresponding date in 1891, yet the fact must not be ignored that high average prices in 1891 drew supplies from all available sources, and consequently the visible and invisible supplies will not now equal the corresponding supplies at this time last year. But admitting that the supplies are about the same, even then the situation is favorable for an advance in prices for wheat before nine months pass. In India, Great Britain, Australasia and the United States the crop is considerably less this year than it was in 1891. The large shortage in the above countries is very considerably greater than is the increase in other countries of the crop this year compared with the crop in 1891. Not only does wheat show a falling off, take all countries as a whole, but corn will be very materially less. In the United States the crop under the most favorable weather conditions will not be within 400,000,000 bushels of the yield in 1891. In Russia and other corn-growing countries the crop will not aggregate any more than it did in last year. The rye crop in Germany promises to be larger this year than it was in 1891, but even then it is not expected to be an average of the root crops outside of the United States. We are not so well advised, but the tenor of advices does not warrant the belief that the yield will be much more than it was in last year. In this country there will most certainly be a considerable falling off, particularly in potatoes. In speculating on the wheat supply the wheat crop is no mean factor and cannot be ignored, for potatoes and other root vegetables enter largely as articles of food and when the supply is short and prices are high wheat is eaten more extensively. With a certainty of shortage, when compared with the crops in 1891, in the world's crop of wheat and also in the crop of corn, and a probably lessened yield of root vegetables, the outlook for good renumerative prices for wheat is of the most encouraging character.

COMPETITION.—It is is a mean sort of competition, but perhaps the Southern Pacific will respect it. It is reported that 10-ton wagons are being built in Stockton for freight hauling to and from Fresno, in opposition to the railway. What kind of a railway must it be to be beaten by a mule team?

From An Independent Standpoint.

The telegraph dispatches announce that the presidential campaign was fairly started in the Senate on Tuesday of this week by a resolution offered by Mr. Hale of Maine, stating the fact that "at no time has so large a portion of the American people been employed at so high wages and purchasing the necessities of life at so low prices as in 1892; and whereas these conditions exist and are largely due to the Republican policy of protection, the Committee on Finance is directed to inquire into the policy of tariff for revenue only upon the labor and industries of the United States, and to report the same." This, of course, was throwing down the gauntlet to the Democrats, and Mr. Vest, in their behalf, accepted the challenge and had much to say as to the McKinley Act increasing the cost of dry goods and hardware, reducing wages and causing strikes and labor troubles, referring particularly to the troubles at Carnegie's works. He also commented upon the choice of the new chairman of the Republican national committee, being in line with the policy of encouraging monopolies. There was more talk, back and forth, between the two sides of the House, but, strangely enough, there was no man in the Senate of the United States who had the manliness and the sense of decent propriety to stand up and say that the Senate chamber of the nation was no place to inaugurate a political campaign, or in which to air partisan eloquence. It is a shame, indeed, if there are not stumps enough in this country for the politicians, without turning the chief hall of national legislation into a campaign wrangling place.

The immediate interest in politics, as is usual after national conventions is the attitude of the disappointed. No party can, or at least no party has the courage to depend wholly upon its better elements, and so, even when casting out its devils, it looks out so far as it can that they do not abandon it altogether. There is just now serious concern in the Democratic camp as to the policy of the New York Tammany Society in the coming campaign. Open hostility is not feared, for honorable frankness in any line of policy is never expected from Tammany, but apathy would practically be as bad as opposition. The active interest of Tammany is the essential condition of Democratic success in New York, and this accounts for the fact that the men who were manfully fighting the "tiger" at Chicago last week, and who succeeded in overcoming him, are now trying to coax him into good humor. The outcome is uncertain. Tammany is not exempt from that caddish sentiment of hatred to the country at large which is characteristic of New York, and nothing short of substantial considerations will induce him to forego his revenge. Tammany's price will be the Government patronage in New York, and it remains to be seen if Mr. Whitney, who is managing Mr. Cleveland's campaign, will be weak enough to give it. We believe that Mr. Cleveland is an honest man, who would rather be beaten than to make the concession. All the other opponents of Cleveland at Chicago—Watterson, Brice, Carlisle, and even Gorman—are marching gaily enough to the party music, and will give their efforts this year, as usual, to the party cause. The chairmanship of the Democratic national committee has not yet been arranged, but Mr. Brice will probably retire, leaving the place to Mr. Whitney or to somebody who will carry out his policies and move as he directs. The disappointed Republicans have been more prompt to announce their continued allegience. All have volunteered the assurance that they will "stand in" for the campaign, so there now remains on the Republican side no malcontents, save the silver advocates of Colorado, Nevada, Idaho and Montana. Mr. Clarkson spent some hours with the President on Saturday, and it was reported that he had been invited to continue in the chairmanship of the national committee, but at the meeting of the committee on Monday, he denied the story, declining to stand for the chairmanship on the express ground that Mr. Harrison preferred somebody else. Mr. W. J. Campbell of Ills., a new man in national politics, was then chosen in his place, and he it is who will command the forces in the coming fight. Mr. Campbell, it is reported, was the choice of Mr. Harrison, the committee having invited him to name its chairman; indeed, the whole temper of its meeting on Monday was that of complaisance to Mr. Harrison, who seems to have inspired the proceedings from beginning to end. It strikes us that, on the whole, it would be in better taste if Mr. Harrison would permit the party to select its own chairman and make its own campaign, resting content himself to perform his duties as President. The Chief Magistrate of the country has no time to spare in the promotion of partisan politics, even when his personal interests are at stake, and he would do better to leave it alone.

Mr. Clarkson made a speech at the committee meeting above referred to, which the telegraph reports as follows:

Referring to the campaign of 1888, and the work of Quay and Dudley, he said he hoped that there was no Republican in this land who would ever cease to render due honor to those two honorable men who went into the hottest fire for the Republican party, and emerged victorious and without detraction. He had known many men and had a large friendship in the country, and he wanted to say that upon his dying bed he could not name two men more to be loved and honored than Quay and Dudley. He warned the committee against the growing tendency in the Republican party, under the hypocrisy of the times, not to defend its party leaders. Quay and Dudley were attacked by a party whose success was derived from the use of the knife in the South, and the assassination of character in the North. They were attacked, not because they were guilty of anything wrong in the campaign, but because they had won victory for the Republican party, and had restored the Government to an honest basis.

In this there is the virtue of friendship and the courage of conviction, illustrating the difference between Mr. Clarkson as a man and Mr. Clarkson as a public man. It is this difference which makes him, and those who stand with him, dangerous to the interests of the country. Personally of fair character, they seem willing to do in politics, without scruple, what in ordinary affairs they would scorn as pale, cold villainy. Mr. Clarkson or his friends Quay and Dudley are no doubt to be trusted implicitly in the ordinary affairs of life, but in politics they are utterly without morals, have no regard for principles, follow only the devious ways of expediency, and seek only selfish ends. Such men are a curse to their party and their country. The surprise is to find in them the virtues and the courage of private manhood. But interesting as it is to know how these spoilsmen love each other, it was not the motive of our quotation from Mr. Clarkson's speech; it was to show the character in which the practical politician views himself. Mr. Clarkson's warning is against the growing tendency of the parties not to defend their leaders. Party leaders! Indeed! Here is the sublimation of conceit. The leaders of the American parties are not made of such stuff as Messrs. Clarkson, Dudley and Quay. Who goes to these men for ideas? Who seeks to know what their opinions may be upon questions of public policy, not to mention the more serious questions of Government? Who is foolish enough to imagine that they have any ideas or opinions not subordinated to the contingencies of immediate partisan success? The political leaders of this country are men like Mr. Blaine, Mr. Cleveland, Mr. Harrison, Mr. Carlisle, Mr. McKinley and Mr. Mills—men who, no matter what their political associations or antagonisms may be, nevertheless busy themselves with the principles and philosophies of things, and who furnish the country with ideas and arguments. For such men there is no lack of loyalty; the people do not have to be urged to their defense. It was not supposed until now that men of the Clarkson sort imagined themselves to be the leaders of the politics of the country. They have indeed about the same right to call themselves leaders that the sutlers of an army have to call themselves commanders.

The most striking fact concerning the Republican and Democratic platforms is their close likeness to each other. There is, in fact, something akin to parallelism in the satisfaction with which each views the continuing integrity of American institutions, and the anxious regard which each expresses for the pensioner, the settler upon unsurveyed lands, the long-enduring Irish, much-abused Jew, and in view of the evils threatened by indiscriminate emigration, but the climax of correspondence is found in the planks which relate to the currency, and for which both parties adopted the sense and something like the phrase of President Harrison in declaring that every dollar must be the equal of every other dollar. The only radical difference between the two platforms concerns the policy of dealing with election frauds in the South, and with the protective tariff. Here, indeed, is something like manly frankness—but here only. As to all else there is evasion, subterfuge and double meaning. The voter who would decide fairly between the two parties must study, not their official declarations of principle, but their character and tendencies as illustrated by their history. This is the only way to judge of parties. It is easy for a political party "in convention assembled" to declare itself illustrious in career, pure in character, noble in purpose and wise in judgment, but the discreet voter will not hearken to its own acclaim, but will study into its past—consider the principles and conditions in which it was founded, view the course of its relations to public affairs, and inspect, not only the men it presents for public office, but by whom the party policy is framed, and by whom its affairs are mustered and directed.

So far as the two parties are concerned, there is a truce as to silver. Both Harrison and Cleveland are positively committed against free coinage, and either may be depended upon to veto any measure which the silver advocates might be able to get through Congress. One or the other of these men will occupy the White House for nearly five years to come. So the situation is not especially flattering to the silver men; for the present their fight is lost, and however unpleasant the fact may be, there will be no advantage in trying to avoid or misconstrue it. Of all forms of deception, self-deception is the worst, and it is a folly which the silver men will do well to avoid. The discussion of the past six months has been clearly to the disadvantage of silver. The gold standardists have succeeded, if not in convincing the country, at least in alarming it. They have marshalled in force against the free silver proposition, and their lists have been found to include the financial doctrinaires, the capitalists and bankers, the chief political thinkers and leaders and the vast hosts of the timid. Against such a union of powerful elements, it has been impossible to make headway. It has been the misfortune of the silver cause to have few advocates save those who directly represent the mining interests involved and the political interests associated with them. Since there is no evil so ruinous as a deranged and depreciated currency, the conservative position of the country is, on the whole, a thing not to be regretted. The country cannot afford to make a mistake as to silver, and we believe its best course is to hold fast to the present until the nations of the earth, acting together, can come to an agreement as to silver that will warrant its use here to the fullest extent without hazardous experiment. This is the only safe, and as we look at it, the only possible solution of the silver question; and it is a solution to which the nations are being forced by the irresistible logic of facts. The mines produce less and less gold while the demand for currency steadily grows. The value of gold naturally goes up and as it goes up, the value of everything else goes down. It is not surprising that the debtor and producing classes feel the pinch and that they cry out for relief. Relief must come, however, from united action; no one country—not even the United States—is strong enough to carry the reform alone.

The advocates of free silver have assumed too much in reckoning their strength. They have talked broadly, and still talk of "The West" as united and urgent for their demands, and have indulged in the assumption that the question would develop, or had already developed, into a sectional one, with the West on one side and the East on other. The truth is, in the West there is the same division of sentiment, and the same preponderance of judgment against free coinage that there is in the East. The Pacific States, for example, are invariably scheduled for free coinage, while they are, in fact, three to five against it. In California there happens to be two leading newspapers who favor free coinage, but they have made no serious impression upon the sentiment of the country, which stands favorably by a large majority to the gold standard. We have recently seen how impossible it was to get a straight free coinage plank in either of the Democratic or Republican State conventions. In Oregon there is no public journal which favors free coinage. Both political parties have declared against it within the past three months, and the Oregon representatives in both the Minneapolis and Chicago conventions were active partisans of the gold standard. In Washington the situation is precisely the same. The leading newspapers, Democratic and Republican, are against free coinage, and neither of the political parties in their recent State conventions supported the silver proposition. The six Senators from California, Washington and Oregon are solid for gold and against the claims of silver. Nevada and Idaho, it is true, are silver States, and so are Colorado and Montana, but these are all. This question should be considered only with a view to the policy of the country as to its currency. We cannot afford to monkey with the currency to please even the favorite interest of four important States. If free coinage of silver is a good thing for the country, then let us have it and let us rejoice that it will be a good thing also for the four silver States; but if it will be a bad thing for the country, let us reject it without any regard for private or local interests. Delay at this time is the only fair policy.

The Democrats had a fine opportunity for fair advantage over the Republicans in nominating a candidate for the Vice-Presidency. There was no propriety in Mr. Reid's nomination, for he represented nothing save a general personal respectability and the money interests of New York City. There was no more propriety in nominating him than any other fairly intelligent man of good character with a financial "pull." If the Democrats had been wise, they would have named as his opponent some such man as Boies of Iowa, Gray of Indiana or Campbell of Ohio. It would have given their ticket a strength in the West, and would no doubt have captured a great many moderate Republican voters who resent the nomination of Mr. Reid. This advantage was utterly lost by the nom-

ination of Mr. Stevenson. It is probable that not one out of every ten thousand voters in the land had ever heard of Mr. Stevenson. His sole recommendation seems to be that he was born in the South and that he lives in the West. While his general respectability of character is unquestioned, he is distinguished for nothing, and such reputation as he has is based upon a single term in Congress as the representative of the Greenback party. The nomination was unfit and unwise, quite as unfit and unwise as that of Mr. Reid. It would be a humiliation to the country if, through any chance, either of these men should come to the Presidency that would go far toward cheapening the great office of Chief Magistrate.

On Wednesday, as we write, the Prohibition Convention is meeting at Cincinnati, and there is the promise of a very interesting session. Mr. St. John has succeeded, as he desired, in getting himself entirely out of way of the nomination, and it is believed that the chances at present lie between General Bidwell of California and Mr. Demorest of New York. The principal point urged in favor of Mr. Demorest is that he will subscribe liberally to the campaign fund, but the leaders want a man who will take well as a speaker, and therefore they will be solid for the Californian. Miss Frances E. Willard, who is a prominent figure, announces that she will use every endeavor to have the convention adopt a resolution pledging the party to withdraw the presidential candidate if the People's Party Convention at Omaha will put up a man satisfactory to the National Prohibition Committee, and to have the committee rested with discretionary power in the matter. She will also ask to have the name of the Prohibition Party changed to the Home Protection Party. On the other hand, there is strong opposition to fusion, some of the opponents going so far as to call Miss Willard a "Prohibition mugwump."

The leading men in the People's Party, soon to meet at Omaha, are looking about for a strong Presidential candidate. They succeeded last week in practical agreement upon Judge Gresham of Indiana. It was first understood that he would accept and make the campaign if the platform was sufficiently moderate to correspond with his views, but later it was understood that he absolutely declines, and will not, under any circumstances, accept the nomination. It is to the credit of Mr. Weaver and others that they are perfectly willing to stand aside and permit the nomination to go to who ever will give strength to the party, waiving entirely any personal claims they may have to party honors. Of course the nomination of a man like Judge Gresham upon a reasonably moderate platform would put the People's party in an entirely new position before the country. Such a nomination, it is safe to say, would immediately treble the strength of the party, but political wisdom is the last virtue of reformers, and it is not to be expected that it will be exercised in the present instance. They will probably insist upon the extreme tenets of reform, and General Weaver will probably be the candidate.

Whether or not Mr. Depew was offered the Secretaryship of State will probably never be known, at least not until this campaign is over. At all events, he will not be appointed, and it is reported this morning (Wednesday) that General Tracy of the Navy Department will take the vacant place in the State Department, and that Governor Cheney of New Hampshire will succeed as Secretary of the Navy. This information was given to the newspaper correspondents at Washington last night, by a member of the National Committee who professed to have the news directly from the White House, but there is as yet no authoritative announcement. During the week gossip has connected a good many names with the position, including Col. John Hay of Ohio, General J. W. Foster of Indiana, Congressman Hitt of Illinois, Henry Cabot Lodge and ex-Governor Long of Massachusetts. There seems to be an abundance of available material. It is probable that the formal announcement of the appointment will be made on Monday.

SOME one has said that if farmers were as careful to get rid of their poor horses as they are to rid their land of weeds, the scrub would soon be a horse of the past. From our observation, we believe the man who works most diligently to keep down the weeds on his farm is the man who drives a respectable team, and the scrub and weeds go hand in hand.

THE tallest horse in the world standing 22 hands high and weighing 2800 pounds, owned by T. E. Ridgeway of Fort Worth, Texas, died May 5th. This horse has been on exhibition in various States, and it was contemplated sending him to the World's Fair. Now that he is dead, his carcass will be stuffed and prepared for exhibition in Chicago next year.

FREE GRAIN.—The Czar sanctions in Russia the unconditional exportation of wheat, oats, barley and other cereals excepting rye.

ENTOMOLOGICAL.

A New Ladybird from Australia.

By B. M. LELONG, State Board of Horticulture, and Chief Horticultural Officer.

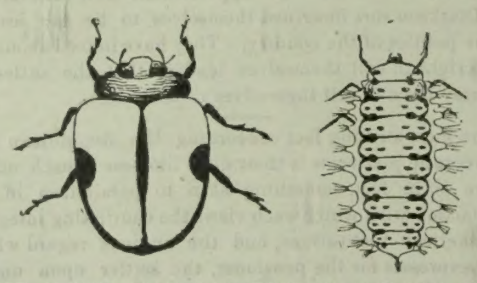
On April 14, 1892, we received three very small and insignificant-looking insects, that prey on the cottony cushion scale, from Albert Koebele, now in Australia collecting beneficial insects. Mr. Koebele discovered this insect in Australia and it was named in honor of our distinguished friend by Sidney Olliff, Government Entomologist of New South Wales.

As soon as these insects were received they were turned over to our entomologist, Alexander Craw, who placed them in a small glass jar in which branches infected with cottony cushion scale had been previously placed for them to feed on. Subsequently one of these insects died, leaving but two, which on April 26, changed to the pupa or chrysalis state, and on May 1st the perfect beetles emerged, and, fortunately were male and female. On May 4th the female deposited eggs, which hatched May 9th. The young larvæ were carefully reared and after passing through three molts, changed into the pupa state, and on June 3d, 55 perfect beetles came out, thus occupying just 31 days from the egg to the beetle stage. When liberated on trees they will, no doubt, pass through their transformation in much less time. In about a month we shall have thousands of these beetles for distribution.

The successful colonization of this insect was most fortunate, and, while we already have a cottony cushion scale exterminator in the *Vedalia*, an insect formerly introduced, yet this one adds another chapter to the annals of economic entomology hitherto unprecedented.

In previous articles the beneficial insects discovered by Mr. Koebele were reported to show what is being done by way of their introduction, with the hope that they would accomplish the same results here as in their native country, if once they became established. While this investigation was still in progress, statements appeared in the public press, advising that what was then said be taken with a great deal of allowance, and one in particular read, "It will be many years yet, perhaps centuries, but most likely never, before we succeed in introducing beneficial insects that will free our fruit trees of all the insect pests that attack them. The work that the Vedalia accomplished is without precedent in the entire annals of economic entomology, and, therefore, we can scarcely hope for a repetition of it in the case of the recently imported species." Thus a damper was thrust upon the objects in view, but fortunately, Nature triumphs over the unwarranted deductions of theorists. The discovery of this valuable insect, whose functions equal, if not surpass, the Vedalia cardinalis, ought to silence those who, on theory, condemn as impossible what is easily accomplished in the field of experiment.

Experiments will soon be made to determine upon what other species this insect will also work, and the results will be given to the public from time to time.



NEW AUSTRALIAN LADYBIRD—*Novius Koebelei.*—Oliff.

Description.—Beetle slightly smaller than Vedalia cardinalis, averaging one eighth of an inch in length. The elytra are cardinal red when the perfect beetle issues from the pupa case, afterward changing to deep blood red. The male has a black line down the center of the back from the thorax to the point of the abdomen where it widens, extending forward along the lower edge of the elytra to near the center, where it terminates in a small blotch. Head and thorax dark, and together with the elytra are densely covered with microscopic light or yellowish hairs. The legs are black with the exception of the tarsi, which are buff colored.

The female can readily be distinguished from the male in having the central black line extend only half way down the back; the balance of the wing covers are blood red, with the exception of two faint spots, one slightly under the center of each wing cover, but in some specimens this is not discernible.

Eggs.—These measure .03 of an inch in length by .01 of of an inch wide, and are deep blood red in color. The female deposits them upon or near the scale so that when the larva hatch they will conveniently find their food. The eggs are laid singly or in small patches upon their sides instead of being attached at the end to the leaf or twig, as is the case with the twice-stabbed and some other species of ladybirds. In five days they hatch into small, six-legged larva very much resembling the young of the Icerya upon which they feed. In confinement they pass through three molts and the chrysalis state into perfect beetles within 31 days, but in the warm orchards and sunshine this time will probably be reduced ten days.

Larva.—When full grown, measure about .18 of an inch and are thickly covered with white powder or fine cotton, but generally leaving the segments well defined. When newly molted, they are brownish-red or chocolate colored. Down each side of the back are what appear like two black lines; but when examined with a good lens or microscope, will be seen to be a double row of dots or short lines upon each segment, and between the segments are large black spots forming a central row to the other markings. Upon each segment along the sides protrude small warts, from each of which are four fine hairs. The first two segments from the head each have two extra, smaller warts with a single hair upon each.

Pupa.—When full grown, the larva seeks a suitable location to go through the chrysalis stage. This is generally upon the branch or a dry leaf, where it attaches itself, head downward, by a gummy matter exuded from the abdomen. In this position it remains a few days, when the back of the chrysalis splits longitudinally, exposing the pupa which later changes into the perfect beetle.

Crop Reports from Fresno, Tulare and Merced Counties.

FOR WEEK ENDING MONDAY, JUNE 27th.

The situation remains unchanged for the raisin industry. A careful canvass of this district made during the past week by experts, shows that in vineyards less than three years old, 75 per cent of them have lost their first crop entirely. The remaining 25 per cent have lost fully 75 per cent of the first crop. In vineyards over four years old, the loss varies from 25 to 60 per cent of the first crop. The smaller losses are due to careful and persistent cultivation. The clusters remaining on the vines will be fine, but the total crop of "London Layers" will be fully 50 per cent short of the 1891 crop. It is too early to suggest anything as to the second crop, except that at this date, everything looks favorable. The weather conditions for the past week have been good for all crops. Harvesting is going ahead in good shape, and results better than anticipated in all districts. Apricots are coming in, in vast quantities, and other fruits never looked better.

EASTON DISTRICT.—The weather has been good for all crops. Apricot harvest is well advanced. The peach crop will be large. The vineyards which dropped the first crop will have a fair second crop, but it will be late. Old vineyards that retained their first crop will have little or no second crop.

OLEANDER DISTRICT.—Harvesting in progress, with good yield. Raisin crop will be short, as the first crop has nearly all dropped off, and the leading growers of this district have made a compact to sell their second crop to the distillers as it will be of inferior grade, owing to lack of sugar and probability of being soaked by the fall rains. This move will take more than 1000 tons of raisins out of the market, from this district alone, and will probably be followed by other districts.

TULARE COUNTY—VISALIA DISTRICT—Weather not warm until 27th. Fruit ripening slowly; orchard men wish a few warmer days.

HANFORD DISTRICT.—First crop raisin grapes below average. Apricots and peaches average well. Weather good for all fruit crops.

PIXLEY DISTRICT.—Harvesting in full swing. Will average two sacks to acre on unirrigated, and ten sacks on irrigated land.

MERCED COUNTY—MERCED DISTRICT—Harvesting progressing rapidly. Yield better than anticipated. Quality generally good. Occasional crop shrunken somewhat.

J. R. WILLIAMS, Observer.

The "Poor Man's Dollar."

CARMEL GARDEN, June 27th, 1892.

TO THE EDITOR:—Some two years ago I pointed out the folly of farmers echoing the cuckoo cry of the silver ring, that the "silver dollar was the poor man's dollar." We are on the eve of another election and each party has taken up an eminently respectable and dignified position on the fence. Meaningless platitudes on the currency question appear in either platform. Does the farmer realize the situation? Does he know that 420 millions of silver dollars are already stowed away in U. S. Treasury vaults? Does that look as though the country were very anxious to use more silver coin? Does that show a need for coining $4,500,000 more every month? Does it foreshadow any probable benefit to the citizen at large if the U. S. mints should be directed to coin all the silver offered them, provided it is "American silver"? By the way, how do they earmark *American* silver? Is it understood how unavailing our efforts to keep up the price of silver have been? So unavailing that while silver sold for 120 cents per ounce only two years ago it now barely fetches 87 cents per ounce.

Is it not obvious to us that by an artificial demand silver production has been over stimulated and the supply has far exceeded market wants? What eminent services have our "Silver Kings" rendered the people at large that their product should be the one selected to be "bulled" by the Government at the expense of the people?

Have we forgotten that only a few years ago silver was at five or six per cent discount, and San Francisco merchants all made special contracts that *their* bills were payable in "U. S. *gold coin*" only? Have we all heard that Canadian banks already receive American silver dollars at five per cent discount? If this is a Government of silver miners, for silver miners and by silver miners, its action in this silver question is quite intelligible. If not, it behoves us to remember the truthful remark that fell some time since from President Harrison's lips, that if, unfortunately, one dollar gets to be of less worth than another the hands of the toiler are the first to receive the depreciated dollar.

Silver miners know what they want and why they want it. When farmers know what they want and why they want it, it is possible they will get it. But they must not ask for the moon, or more than their share of the earth. They must also know what they *don't* want. And I know one farmer who some years ago (not very many) had to take his pay very largely in silver, and then to pay his bills in San Francisco very largely in gold at a premium of about six per cent. Of course that can never happen again! O no! but that farmer knows that what has been, *may* be. Hence this squeal in time.

Then, in the sweet by and by, when the crash comes—when the cute American people discover that buying silver at 120 cents and holding it till it is worth 76 cents is not the most lucrative of all businesses—what then? When Uncle Sam thinks it's time to sell out, even at a great sacrifice, who's to shoulder the loss? Will it be the politicians? The silver ring? Not much. The burden will be saddled on that ever-patient ass, the farmer.

Farmers, you have been nipped in the past in this same old silver vice, don't stick in your fingers and turn that screw again. Murder! don't! it hurts. EDW. BERWICK.

FREIGHTS VIA. MOJAVE.—It is announced that in order to properly handle the large amount of canned goods and dried fruit shipments during the coming season the Atlantic and Pacific railway (Santa Fe route) will inaugurate a daily fast special freight line service from Mojave, Cal., to Chicago and New York. The schedule time from San Francisco, San Jose and Northern California points to Chicago via. this line will be eight days and to New York eleven days. Arrangements have also been made to have all carload shipments go through to their destination without transfer, thereby saving any delay or damage to the fruit while in transit.

POULTRY YARD.

Organizing a Poultry Ranch.

LODI, SAN JOAQUIN CO. June 25.

TO THE EDITOR:—Having in a former article said something of what constitutes proper care of poultry and promised to say more, perhaps I had better give a little of my experience in organizing a poultry ranch. Experience is always better than theory, or rather the result of actual practical experiment is better than mere theorizing, for one may be done without much actual knowledge of the subject, but for the other there is absolute certainty where the experimenting has been thoroughly and intelligently done and the results carefully noted. The teachings of experience cannot however, be applied to all cases and all localities perhaps, without modifications or possible alterations in some particulars, but with a solid groundwork on which to build, such modifications and such alterations readily suggest themselves to the intelligent mind, so that in the commencement of any new enterprise it is always desirable to be able to avail ourselves of the "experience" of those who have been successful in the line we desire to follow.

Knowledge in any line of business is not to be acquired without some cost and the way for a beginner in poultry to learn the proper method in keeping them to ensure success at the least cost, is I think, not to attempt to jump at once into a full-fledged poultry raiser, but to commence in a comparatively small way, learning to take care of a small number properly and to enlarge the number as one acquires knowledge and ability in the pursuit. In this way one gradually and easily finds oneself capable of conducting an extensive business if he so desires, with ease and certainty of success and without having been subjected to any very considerable and discouraging losses.

I bought 250 hens with which to commence my poultry business, having what I thought a suitable place in which to keep as many hens as I desired to keep, having placed my limit at ten thousand laying hens. To accomodate my hens suitably I built four houses, each one 8x12 feet in in size with gable roofs and six feet high at the eaves. They were built of 1x10 boards placed upright and battened to exclude draughts and having the gables filled in with lattice instead of solidly with board. For summer use I had lattice doors to ensure plenty of fresh air for the fowls, and having close doors for winter use.

The inside of the houses was arranged and furnished with a trough for water and one for feed. There was a coop built along the back end of each house inside, in which to confine broody hens until they would agree to go to laying again. The roosts were four in number of 2x4 stuff with rounded top edges and running lengthwise of the building, two on each side of the doorway and at a height of about two feet from the ground floor of the house; the doors being in the ends of the buildings. The feed and water troughs were very ingeniously arranged, I thought, being so arranged as to slide in and out of the doorway, one on each side, and sliding into a box of equal length with the trough, the box having its sides of laths placed upright and sufficiently near each other to admit the head and neck of the fowl, but not the body. In this manner I kept the food and water clean and readily accessible for them when desiring to eat or drink.

I placed my houses along one side of my ranch and at a distance from each other of about 30 yards and well out from the fence, and I divided my fowls among the four houses equally, the houses being supposed to be capable of accommodating, well and comfortably, one hundred fowls. Each morning and evening I took them food, having for the purpose a small hand-cart, and each noon fresh water was taken in a barrel or tank which could be placed in the cart and then filled.

For their morning feed I gave them a sort of vegetable mixture, being composed of vegetables of some kind, or carrot or beet tops, cabbage leaves and meat scraps, cooked together the night before, thickened with bran and properly seasoned, and left in the boiler with a chunk under it to keep warm all night, and give to the fowls warm in the morning as soon as they were ready to leave the roost. At night I gave a liberal feed of dry grain, principally of wheat, but sometimes of barley, corn, or Egyptian corn. Through the day the fowls ranged as far as they wished on all sides, finding an abundance of insects, gravel, etc.

One would certainly think that being so comfortably and even luxuriously fixed, that each hen would certainly lay at least one egg a day, but they didn't, even though they had nice nests placed for them, as secluded and inviting looking as a reasonable hen could desire. The nests consist of a box running along one side of the house, outside, and on the ground, divided into nests 12 by 16 inches and one foot high, each nest having an opening into the house, and a board so placed as to form a sort of hallway or runway, making the nests seem hidden away, as fowls seem to like them. But this was all to no purpose; they didn't seem to want to lay, anyhow. The nests were covered on the outside with a board hinged to the side of the house, and how a hen could help wanting to creep in through the hallway, open at each end, and select one of the inviting-looking nests, each filled with nice, clean-looking, chopped straw, and forthwith enter on the discharge of her duties as a conscientious and well-behaved hen should, is more than I could understand. But they went no farther than walking along by them, looking inquiringly into each one and making remarks to each other which I didn't fully understand at the time, but have since concluded to have been to the effect that they were very nice, but didn't fully suit them.

Then, desiring to suit them, if possible, I took coal oil cans and cutting them in two, crosswise, made of each a nice nest, which I fastened to the side of the house, inside, and at varying height from the floor, none of them more than two feet. These I filled with chopped straw, and for a time they seemed to like those better and would fly up on them and even scratch the straw out, but, after all, didn't seem any more inclined to lay than they had with the other nests. The upshot of the whole matter was that the perverse things, if they could find an old box or an old tin can anywhere, no matter how disreputable looking it was, they would lay in them what few eggs they did lay, to the utter disregard of the nice, artistically made and arranged nests which I had, with so much care and trouble, made for them. So they have continued to the present time, and all I have to do is to put a box in some place a little retired, as though it was thrown there to be out of the way, and they forthwith appropriate it and go to laying in it.

One may gather from all this, that there is something for each one to learn for himself in spite of and outside of all rules laid down in treatises on fowl-keeping, and so every beginner will find it; and, in fact, however experienced one may be, there is continually something to learn, and to be successful as a poultry keeper, one must study the nature of the fowls in all its different aspects, become familiarized with their habits and requirements, to know what they need and when they need it.

All localities are not alike, and the treatment and care requisite in one place would perhaps be altogether unsuitable in another. As a general rule, watch your fowls closely from day to day, and if they are not brisk and bright looking, they are then lacking something which you must try to supply them, or have been fed, perhaps, too much of something which must be discontinued, or their treatment in some way changed. Medicines and preparations of various kinds for the keeping of fowls healthy and preventing disease are, in my opinion, to be avoided just as much as "dosing" is in the human family. Scrupulous cleanliness in all may be said to be the main requisite in their care—fully as necessary as food and water where fowls are kept in numbers, and without it no one can have healthy or productive fowls. T. B. GEFFROY.

HORTICULTURE.

Peach-Growing in Georgia.

Our readers will be interested in an account of the plans and progress of peach growers in Georgia, who propose to contest with us the peach supply of the Eastern States. We find the following over the signature of Mr. Mortimer Whitehead in the *American Florist:*

It would make a long story to tell of all there is of interest to be seen in and around Fort Valley, Houston county, Georgia. It seems to well deserve its title, "The Peach Paradise of the United States." The attractive little city has 2500 inhabitants, near the center of the State, on a high, level plateau 700 feet above the Gulf of Mexico, and when frosts kill the fruit blossoms on the lower levels, many miles farther south, here they bloom and reward the grower with bounteous crops that can be placed in the great cities of the North in from 48 to 70 hours; and while it is now only the very earliest days of June, hundreds of crates of beautiful peaches—Alexanders—beautifully ripened and colored by the southern sun are being shipped daily from several points in the county. Upward of 1,000,000 peach trees are already planted in great orchards and thousands of acres more that have for years been ruled and abused by "king cotton" are preparing to grow one of Pomona's choicest gifts, and pears, apples, plums and grapes as well.

Several large tracts of orchard planting are owned and managed by stock companies, among which may be mentioned the Ohio Fruit Land Co., with 1250 acres, and $25,000 capital stock; the Albaugh Georgia Co., with 1170 acres, $50,000 capital stock, and 80,000 peach trees planted. One orchard of 100 acres and 10,000 Kieffer pear trees is another sample. One of the places visited, so far the best developed, is that of E. M. Rumph, near Marshallville, on which, from one orchard of peaches covering 200 acres, $50.000 is said to have been made in 1889.

The Hale orchard is planted upon an old cotton plantation, the former owner of which seemed to have some conscience and heart in soil culture, and was therefore not quite so much of a land destroyer as many others, and the portion of mother earth which he held in trust was therefore not as badly "run" as the average. But all who know the Hales know that even this condition was not foundation enough for them, and so several thousand dollars worth of fertilizers were used at the start, mostly cotton hull ashes, cotton seed meal and rock phosphate. It is less than seven months since the work of building this great peach farm commenced, and yet to-day on that 900-acre farm are growing in the most thrifty manner 101,000 peach trees, planted 13 feet each way, in rows one and a half miles long, besides hundreds of thousands more of young trees in nursery rows; two and one-half million Marianna plums to be used as stocks for budding more peach trees; a large variety of small fruits, including 60 varieties of strawberries, being tested in this soil and climate. One hundred acres of what is universally admitted to be the finest piece of corn in the county—and we saw nothing finer in all the trip from Washington to Georgia—is a sight to behold. Among the trees are growing hundreds of acres of cow peas, to be plowed under as a fertilizer, and to be immediately followed by scarlet clover, which grows here all winter and can be turned under when two feet high next spring. The Hale farm is a beautiful, level plain, smooth as a prairie, and from the house every acre of it can be seen. In cultivation all the improved implements are used, and modern, wide-awake, "intensive" culture on an "extensive" plan is the rule. Before planting, the farm was all carefully surveyed, being laid out in blocks 500 by 1000 feet and divided by avenues and streets. The avenues run north and south, the streets east and west. Very appropriately the avenues are named for the peach-growing States, with Connecticut in the well-earned center, with Georgia on one side and California on the other; then Delaware, Michigan, New Jersey, Missouri and Maryland. The streets are named for well known horticulturists, living and dead, Wilder, Augur, Berckmans, Barry and Earle.

The favorite peach of all this region is the Elberta, a native of this county, one of a lot of 1200 seedlings raised by Mr. Rumph, before spoken of, and judging by the grand crop we saw upon tens of thousands of bearing trees during the days of our visit, it may well be said that it "is chief of twelve thousand and altogether lovely." The cultivator who can produce such a new fruit is indeed a benefactor of mankind. The Hales show their faith in it also, as out of their 101,000 trees already planted, 60,000 are Elberta. Their other varieties are as follows: 10,000 Mountain Rose, 9000 Crosby, 6000 Stump the World, 5000 Lady Ingold, 4000 Tillotson, 4000 Thurber, 3000 Late Crawford.

A nice piece of alfalfa, together with experimental plots of milo maize, sorghum, and various grasses, are being grown to determine their value as soiling and fodder crops.

The whole of this enterprise, developed in so short a time and already so full of promise, was a surprise to the visitors and to others who were in the long procession of carriages furnished by citizens, who were glad of an opportunity to show the advantages of their pleasant land, and who drove over this grand farm on this round of sight-seeing.

And all this has been done with the native colored help, the darky and the mule (but the Hales have some good horses as well), under the direction of a bright New England young man, Mr. J. J. Molumphy, one of the boys that the Hales trained on their Connecticut farm, who, down here, far from friends and home, has, in the absence of the proprietors, worked for months, learned to use and control the labor, and to present on June 1 an orchard farm, well planted and cultivated, clear of weeds and a model in every way. If those who saw it with eastern, northern and western eyes were delighted with such thrift and management we may well believe it did "surprise the natives." But the spirit of enterprise is abroad and in the most pleasant relations possible, those from afar and those to the manner born are working out one of the grand enterprises of the "New South," and all tending to the glory of our favored land.

California must look well to her laurels, for nowhere outside of the Golden State have we ever seen such great orchards, such model growth of trees and vines, such perfect tillage, and all the conditions of soil and climate so nearly ideal. And this is nearer by 2000 miles to the markets in which competition will each year become closer. A young giant is awakening in middle Georgia; strong and healthy in his early youth he has entered for the race, and those who would hold their own with him must be up and doing. MORTIMER WHITEHEAD.

Protection for Early Cucumbers.

Californians who are striving for the dollar which comes with the first cucumber to reach the San Francisco market, will be interested in reading of the arrangements which successful Florida producers employ to secure heat and protection for their vines. John Aspinwall of Eau Gallie gives the Indian River *Advocate* the following detailed description of his cheese-cloth "cuke" house:

My present cuke house has simply four walls of siding, seven feet eight inches high. The siding is nailed on a 2x4 frame, made by laying down a 2x4 on the ground and standing uprights on this sill, with another 2x4 for the plate; siding is simply nailed on without cutting to size; ends are squared or let butt where they will. There are benches two feet wide running all around the house next to the wall. In the central space are seven more benches, two feet wide, and of such length as to give a path across the ends. These benches are supported on 2x4 legs and under each bench is a trough in which artesian water, at 77 deg., can be run on cold nights. Between the benches are walks of four-inch flooring, with spaces between the pieces. The benches are made of two eight-inch boards on each side and the bottom of 1x3, with spaces. The bottom of the bench is about one foot above the level of the walk; running lengthwise on each bench, and above the centre of it, runs a three-foot "chicken wire," standing upright, the bottom of it being about ten inches above the earth in the bench. Over the whole of this structure is a layer of cheese cloth, tacked on 1x3 frame work, supported by 1x3 uprights. The secret of what success I have had in this house is due to this flimsy layer of material. Twenty-four hundred feet of cheese cloth covers this building.

The benches are filled as follows: First, on the bottom was put a layer of trash, such as dry weeds and grass; next, three inches of earth with cotton-seed meal; then a layer of cow manure, and, above all, a three-inch layer of sand (surface soil), making, when done, about eight to ten inches of material in each bench. White spine seed was planted about January 10th. I may add that a single strip of cheap cotton goods, one yard wide, was placed over each bench, drawn down at an angle each side, so as to shed the rain that precedes our "northers."

This is my cheese-cloth cuke house; and now comes the question, does it pay? At the present stage in the experiment, I cannot say that it does. I am shipping about 500 cukes per week, and the returns, so far, show them to have sold, on an average (fancy, choice and culls), at about four cents each. My first shipment was made April 1st, and it has increased each week, and, at this writing, the vines are in better condition than at any time since they started to grow.

Of course, it is understood that the vines climb on the upright wire, and the cukes hang down each side. It takes one man one-half day, each day, to fertilize the blossoms, pinch back the vines and train them up.

The fruit is of a dark green color, and from four and one-half to eight inches long. I am packing in the six-basket carrier, and one dozen fancy cukes just nicely fill each basket.

Several things, theoretically correct, have proved practical mistakes. For instance, with a house in as exposed a

situation as mine, cheese cloth is too flimsy to stand the blows we have. I shall search for some more suitable material for next year's use. Again, the flow of artesian water under the benches in a cheese-cloth house seems to have little effect upon the temperature. We have had a severe winter to try this experiment in, and though we are getting now a good crop, it is doubtful if we can carry our vines through the latter part of December and first part of January, so as to begin shipping in February or early part of March. Another year's experiment will be required to establish this point.

I omitted to mention that several applications of commercial fertilizer were made to surface soil after the plants were up.

To show the value of the cheese-cloth covering, I would say that on the same day I transplanted 50 plants—half into one of the benches and the other half out doors. Both lots were given the same treatment and care. Those in the house, under the cheese cloth, are now (April 25th) luxuriant vines, producing fine fruit and having leaves nearly a foot across, while those outside are practically dead and have only produced a few "nubbins."

Trained "Cukes" Under Glass.

We add the methods of another Florida grower, T. H. Hastings of St. Augustine, as described for the *Country Gentleman* by Stephen Powers. Mr. Hastings built a house 165 feet long by 22 feet wide, roofed with 3000 panes, 12 by 16, double strength French glass, 136 sashes, 4 feet 6 inches by 5 feet 10 inches—cost about $1400. He could build it now for about $1100 or $1200. To furnish water for general purposes, and for the irrigation of his out-door crops, he dug an artesian well 239 feet deep, 4 inches in diameter, costing about $450. This furnishes water sufficient to irrigate, as Mr. Hastings estimates, 80 or 100 acres, throwing a stream about 30 feet high, with about three horse power. The temperature of this water is uniformly about 79 degrees, and it occurred to him to utilize it for supplying bottom heat for his forcing-house, as the well is close at hand. He accordingly led it through the house in ditches, directly beneath the benches, which are about three feet above the ground.

Anticipating here a little, I may say that he has satisfied himself by two seasons' experience that the warmth of this water is not sufficient. It excluded frost from the house, of course, and even prevented frost from falling on his strawberries and other plants out doors, securing the tenderest of them complete exemption from injury when the temperature away from the irrigated beds was 28 degrees. But still it does not keep the heat high enough to secure the best results with such tender vines as cucumbers. On two or three of the coldest nights the fruits became so chilled that they rotted and fell off. The vines, however, were not affected, though their growth was checked a little, and their prolificacy was not impaired. But the prices are so fascinating early in the season, during the holidays, that he is not satisfied with the slow results of water heat and will put in a furnace, though with the water still running, he may not need it a half dozen times during the winter on frosty nights.

For his beds he used rotten cow dung and fine straw, or leaf mold and porous sod in lumps well beaten out for the bottoms of the benches, and commercial fertilizer as a food to be applied after the plants are started. Hills about two feet apart; one strong vine to the hill, trained upward within 15 inches of the shaded roof, "cukes" hang down. The two side benches are three feet wide, one row to a bench; the two middle ones are five feet wide, two rows to a bench. Under these benches, shut in dark and close, are beds in which he is experimenting with mushrooms, the white, mold-like stems just appearing above the ground.

Mr. H. tried the American or white spine variety the first year, but discarded it as it would bring only $2 or $3 a dozen, while the English varieties sold at $4 to $6. The varieties he has tested and approved are the Cuthill Black Spine, the Telegraph and the Sion Honse Improved. No cultivation is needed beyond pulling out the few weeds; the cucumber roots run so near the surface that the lightest scratching disturbs them. But it takes about all of one man's time to train the vines up the wires, tie them, pollenize the blossoms and clip off the ends of over-rank vines and tendrils. The male flower is plucked off and the petals removed, then the body of it is inverted into the female flower and pushed down a little so that it will fertilize it. A solitary bumble bee was seen buzzing about the flowers, but the English gardener whom Mr. H. employs prefers not to have bees in the house, as they are apt to mix the varieties and do not perform the work as systematically as he does himself.

As we moved along the long narrow aisles there were cucumbers by hundreds hanging down—they had not been cut for several days—so that we had to keep ducking our heads in order not to knock them about, and most of them were 10 to 12 inches long, many 15 to 18. Notwithstanding the delicious crispness of their flesh, which causes them to bring such high prices, Mr. H. finds them no more difficult to ship, when packed tight, than ordinary field-grown "cukes."

The fruits, which are of a uniform diameter throughout, are practically seedless, with rudiments here and there; but there are others with long, spindling necks and bulging ends, somewhat gourd-shaped, which are pollenized with special care and allowed to ripen for seed. Even these develop so few seeds that they bring a high price, and will be a source of no small profit. The seed cost in England 7s. 6d. for a quarter of an ounce, which would be about $121 a pound, with the freight and tariff to be added.

In February, 13 dozen were shipped, and in March 126 dozen, all of which sold at $6 a dozen in St. Augustine. I visited the house April 8. The tourist season was then drawing toward its close. Since the St. Augustine hotels closed, Mr. H. has been shipping to the North, but I have not learned the results. A few days ago I saw the last picking of the season in Jacksonville, where they sold at $1.25 a dozen. Mr. H. expected to make enough this season to pay for his house.

Fruit Preservation.

About Pickling Olives.

State University, Berkeley, June 20, 1892.

To the Editor:—Permit me a few comments on some points brought out in the discussions on the pickling of olives at the Farmers' Institute lately held at Pomona.

There seems to be a mistaken idea afloat that all olives may be treated alike in pickling. This is not at all the case, for it makes a wide difference whether the fruit is ripe or unripe, large or small, heavily charged with the astringent matters or not. A small olive requires less time for extraction, and is damaged by the same lye that may properly be used for large ones, if applied for the same length of time. A ripe olive requires less time for extraction than the same when unripe.

I have had no difficulty whatever in keeping olives even when pickled very ripe (the condition in which they are best for home consumption), provided they had been properly picked over so as to exclude all injured or otherwise undesirable fruit, *and were at all times kept fully submerged under the lye or brine.* A very short exposure on the surface will irremediably injure both the looks and the keeping quality and taste of the pickled olive; it will become soft, mushy and vapid-tasted, if not rancid, and of a sickly whitish tint; and any such olive will infect a hundred others around it. The same will be sure to happen if bruised or wounded fruit is mixed with the sound; it will happen in *any* case if the water used is impure, so as to become tainted if left to itself. If this condition exists or is suspected, the water should be boiled before using.

As regards the lye treatment, I have found it very undesirable to use it stronger than a pound to 4½ or 5 gallons of water; the action is slower than when the lye is stronger, but the fruit is not softened and the outside remains bright instead of dull. I see no object in using a larger bulk of the liquid than will just stand over the fruit at any one time, and successive extractions with weak lye leave the olives in better shape than one treatment with strong lye, for the latter will be sure to soften the outside portion of the fruit, besides rendering it unsightly.

After the lye has acted; the quicker it is taken out of the fruit the better; and all excess over what is required to extract the bitterness, according to the actual experience in each case, should be avoided. I find that in treating ripe olives, one leaching with clean water after the lye is about all that should be allowed; all subsequent wash waters should have some salt added, as it favors the removal of the lye and prevents softening. In the case of very ripe fruit especially it is desirable to harden it by the use of pretty strong brine so soon as the lye is off; of course this makes the fruit shrink somewhat in size, but also makes it perfectly safe for keeping. The apparent waste of the salt in these brines used for washing are amply repaid by the staunchly keeping product.

If the above points have been attended to, a pound of salt to two gallons is all that is necessary to make the fruit keep; but as in this country the taste of customers runs rather in the direction of high saltiness, more may be used; the olives are easily freshened if desired.

Green olives of course keep much more readily than those which are nearly or quite ripe; but the consumer will eat a good deal more, and oftener, of the riper fruit, so that it is in the interest of the producer, although not so agreeable to the restaurant keeper, to have his pickled fruit as ripe as is compatible with good conservation. In this point, also, different varieties of olives differ; in general the oil-making varieties, if used for pickling, cannot be allowed to ripen as far as the more pulpy kinds that are specially adapted to pickling, and will not become mushy even when quite mature.

In olive-pickling as in other horticultural operations the producer must not rest satisfied with blindly following the precepts of others, that from differences in variety, soil and climate may be far from being the best for his particular case. Close observation and systematic trials, year after year, will put each one on the track of the best practice for his individual case. E. W. Hilgard.

Fruit Marketing.

Woman's Canning & Preserving Company.

Sacramento, 610½ I Street, June 25, 1892.

To the Editor: Will you pardon my long silence, and permit me to sketch for your columns a brief history of an enterprise which has but lately come under my notice, which seems destined to prove itself no inconsiderable factor in the industrial world?

The Woman's Canning & Preserving Company, whose main office is now in Chicago, has been in existence scarcely a year and a half; but in that brief time has demonstrated not only the practicability of the inventions of a woman, but also the ability of women to manage successfully business affairs as well.

Every canner of fruits or other products knows from experience the objections to ordinary processes, and the various attempts to perfect them. Some even calling into requisition chemicals which are more or less harmful, which destroy the natural flavors, and the use of which has done much to bring the industry into ill repute, and to lessen materially the sales of canned goods.

Twenty years ago a woman already well-known in the literary world, abandoned what promised to be a brilliant literary career, and has given herself to study and experiment on lines which have culminated in the inventions now owned by the Woman's Canning & Preserving Company for canning *cooked* goods by the vacuum process, at a very low temperature and without the use of chemicals; and also for canning *uncooked* products without the use of chemicals, which latter process is especially desirable for delicate fruits: thus solving the problem which has disturbed manufacturers and scientists for 35 or 40 years.

First brought prominently to public notice by the Illinois Woman's Press Association, a stock company to utilize the inventions was formed in August, 1890, under the name of the American Woman's Canning Company; among its incorporators being such women as Miss Helen L. Hood, secretary of the Central Women's Christian Temperance Union of Chicago, Miss Mary Allen West, editor of the *Union Signal*, and secretary of the Board of Directors of the Women's Temperance Publishing Association, and Eliza W. Bowman, matron of the Chicago Newsboys' Home.

In December, 1890, by legal advice, the company reorganized under increased capitalization, and with the present corporation name. Practical work was begun in February, 1891, and during last year their specialties won success equalling their highest expectations, the best known wholesale dealers of New York, Chicago, St. Louis, Minneapolis and other places honoring the new company with their orders.

Already a branch fruit factory of large capacity has been started in Montello, Wisconsin; and a second, to work on vegetables and small fruits, at Aurora, Illinois, is probably by this time ready for operations.

The specialties on which the success of the past year were based, were "New Process Lunch Tongues," and apple, peach, and apricot tapioca puddings, English plum pudding and Indian fruit pudding. As there is practically no limit to the possibilities, the company proposes to extend the variety and amount of its manufacture with all possible speed consistent with good business management and the best interests of all concerned.

Among other advantages possessed by this company may be mentioned the following:

1. There is absolutely nothing which can be canned at all that cannot be successfully canned by the Jones processes.

2. These processes as far excel those now in use as the telephone does the Morse telegraph for local business purposes, and are based upon the one and only perfect method of food preservation, i. e., canning in a vacuum.

3. The number of cans of any product obtainable under the Jones processes from a given quantity of raw material, is fully equal to, and generally greater than the number of cans obtainable under any other process now in use.

4. The comparative number of cans per day by each operative, attainable under the Jones process, is equal to that of any process now used, and superior to most of them.

5. The market for canned goods is almost universal, and the stockholders practically control the market demand for the products of this company, while the management of the company is in the hands of persons of unquestioned integrity and business experience, whose aim and object it is to do the maximum amount of business at the minimum expense.

Among the stockholders and commissioners are Mrs. M. Louise Thomas, president of the Sorosis Club, New York City; Mme. E. Jennings Demorest, publisher of *Demorest's Magazine*, New York; Dr. Cora M. Bland, Washington, D. C.; Isabella Beecher Hooker, Hartford, Conn.; Mrs. Clara B Colby, editor *Woman's Tribune*, Washington, D. C. Beatrice, Neb., and Mrs. Augusta M. Dolph, wife of Senator Dolph, Washington, D. C.

A peculiarity of the company's constitution is that stockholders are restricted to women, and the low price of the stock, $25 per share, places it within the reach of many women who could not invest were it held at extravagant figures.

Under all these considerations it would seem that the company's scheme offers a promising field for investment, and also insures immense commercial and financial success.

Mrs. M. B. Smith.

The Peninsula Peach Crop.

Reports of the Delaware and Maryland peach crops indicate a small product this year. We find in the N. Y. *Fruit Trade Journal* of June 18 some matters which are of much interest to those who have peaches to sell this year:

Congressman John W. Causey, who was in Philadelphia recently, explained the condition of affairs regarding the peach crop of Delaware. Mr. Causey is one of the largest growers in the Peninsula, and with his two brothers, owns some of the finest orchards in Delaware. He said:

"There is great disappointment among the growers all over the State at the outcome of the crop. The orchards in the early part of the year never looked better, and everybody was feeling very much encouraged at the outlook. The crop of last year was by no means a profitable one, and many hopes were building upon the money that would come this year. Now we have had a chance to look over the field, and the result is by no means encouraging. There will not be at the outside over one-eighth of a crop.

"The fruit has taken a queer freak. It is usually the first varieties that are hurt the most, but this year they are all right and so are those coming at the end of the season. The failure in the crop is in the fruit which comes in the middle of the season. This will have the effect of leaving us without any peaches for quite a while. Just what is the cause of this I cannot tell. Around Milford, where I live, this same complaint is general. There is, I understand, considerable fruit in Maryland, and down in Sussex county there will be a good and profitable yield of several of the late varieties.

"The yellows have caused considerable damage, particularly in Kent county, while there is scarcely any fruit in Newcastle county. It seems strange there is nothing to cure the yellows.

"Around Smyrna, which formerly was the center of the

peach district, there is scarcely any fruit. The large orchards owned by the various members of the Cummins family have very few peaches in them; this is equally true of the other large orchards. The yellows have done the work here and for several seasons the crop has been a failure in this section. The ravages of the disease, which first made its appearance above Middletown a few years ago, have gradually extended southward, until now it has reached below Wyoming. Very little hope is expressed of this section ever again being productive. Many of the old growers believe that before many years Delaware peaches will be a thing of the past. Thousands of trees have been torn out of the ground and now the lands are used to grow wheat and corn."

A Baltimore correspondent writes to say that after making a tour of the peninsula he is of the opinion that the peach crop will be light. He claims that his statement is not made for speculative purposes, but that there is in fact only a small percentage of the ordinary crop. Some few of the early varieties show good bearing but by no means a fair crop. The bearing is divided into three parts—the early, the middle and the late crop. Of these three the middle crop is the lightest.

The late crop is doing better, but here also there is a great shortage. Taken all in all the total crop will be, it is estimated by conservative judges, not more than a quarter of the crop of last year. This will be about two-thirds of an average crop, as last year was an oversupply.

The "June dropping" is yet to be undergone. The first peaches get to market about the middle of July and are most plentiful about the middle of August. During the month of June the first fruit that is not hardy or is undersized is liable to be blown from the trees. From this source a ten per cent loss is expected this year. This, in addition to the already short crop, will put prices very high. It is too early at this time to estimate what the price may be, but it is thought that the first quotations will be fully 20 per cent over the closing prices of last year.

This will bring out the speculative holdings. Last year, out of a crop of about 2,000,000 crates from the Maryland orchards, about 100,000 cases of canned peaches were packed and carried through the winter. This fruit will be unloaded upon the market in small lots, as soon as it is found that the crop this year is short and big prices will be realized.

Arizona Apricots in New York.

The *Fruit Trade Journal* of June 18th has the following: On Monday the first car of apricots from Arizona reached this city and was sold at auction on the Erie pier. The fruit landed from this car utterly ruined, and only averaged about 10 cents per half crate. Some of it sold as low as three cents per half crate, and its condition may be judged from the fact that the Board of Health seized 250 crates and had them carted to the dump. This car was rejected by the consignees, Messrs. Sgobel & Day, and was sold "for account of whom it may concern." Yesterday morning the second car, containing 1086 half crates royal apricots, arrived and was sold at auction by the above firm from 90 cents to $1.40 per half crate. The fruit was of very handsome quality, larger than that coming from California and well packed, but it was dead ripe, otherwise it would have brought much higher figures. This latter came in a different kind of a refrigerator car, which had been properly iced on the way, and therefore brought its contents in good condition. The fruit is fine and if packed a little greener, and the cars are properly iced on the way, there is no doubt but that it can be brought through here in good condition.

THE FIELD.

The Sugar Beet in California.

At the Pomona Farmers' Institute, Mr. Richard Gird, the well-known sugar beet grower of Chino, San Bernardino county, gave a lecture on the sugar beet in California. The following are paragraphs selected from Mr. Gird's lecture:

Some five years ago I commenced experimenting; I planted as many as 60 experimental patches, running over an area of 20,000 acres, and as soon as the beets got to be large enough I commenced analyzing. I learned to analyze for myself, and got the whole thing into my own hands, so that I didn't have to depend on any outside chemist. The result was I became perfectly familiar with what the soils in different places would produce and the kind of seed adapted to those soils, by the following up of which I could expect to make a success of beet culture. I then cast about to find the capital to put up a factory with. The erection of a factory is a very expensive matter, and has to be done by practical sugar men. In the first place, it costs from $500,000 to $600,000 to put up a good factory, and in the second place, years of experience to run one. Well, I found the capital, and the result is I now have 4000 acres, an area of one mile long and six wide, in sugar beets, growing as nicely as any one could wish, and there is going to be a great crop on the Chino ranch this year. All this we have had to cultivate as carefully as an onion bed—every weed and everything being taken out of the ground. I now have over 400 men and boys on my pay roll. Two years ago there were not, perhaps, a dozen houses on the place, but at the last school census, just made, there were 310 children, which, according to the usual calculations, would make a population from 1300 to 1400 people.

Beet culture is especially adapted for families; children are better at thinning beets than grown people. I have 40 or 50 boys in a gang (boys about 15), with a man looking after them, thinning beets. A boy's fingers are more nimble than a man's, and they can get a better hold of a beet. As an illustration: A man came in this spring and took 20 acres, and his family have done all the thinning and hoeing, and his beets are in as nice a shape as could be found.

As a diversity of product and an employer of labor, there is nothing equal to sugar beet culture; it takes at least one person to each ten acres after a patch is planted. You sow the seed very thick, as the beet has many enemies and comes up so weakly that it is necessary to put plenty of seed in the ground. I generally plant from 12 to 15 pounds to the acre, according to circumstances. After coming up the beets have to be thinned and weeded. I have now, probably 200 men and boys thinning and weeding, and am toward the end of the crop, having say two or three weeks more thinning. After this we have to cultivate, and for this we have special machinery, all of which I have made myself; in fact, everything I use of a special kind, I have made myself. I should therefore advise anybody or any community as the first thing to do, if they wish to go into sugar beet culture, to experiment with their soils and get about ten varieties of the best seed that has been tested, both in Europe and California, plant in different patches around in their fields until they understand the capabilities of their soil for beet culture. I want to say right here that this is something the Agricultural University should take in hand; they ought to send an expert beet culturist throughout the State to teach farmers how to raise the sugar beet. Special business needs special training.

Now, I tell you, gentlemen, that the sugar beet is going to be our great staple industry in California; our country being so well adapted, both in soil and climate, to its successful culture.

The seed of the sugar beet for many wears to come will have to be brought from Europe, although I have planted some to make a start with. It takes so much practical knowledge and requires so much care that I don't believe we will be able to take the matter up and realize a success until after a number of years.

The improved Klein Wanzlebener is adapted to shallow and clayey soils.

As a further illustration of suiting the different classes of beets to the various soils, I tried the beet they grow in Alvarado, but it would not do at all in Chino. I got four per cent more sugar with these beets than with the Alvarado beet.

The rule laid down by Vilmorin, who has been for many years a great beet seed raiser in Europe, is that the percentage of sugar is inverse to the weight of the beet. I can grow a beet as large as my finger so sweet that it will be just like a stick of candy. I had whole loads of beets on the Chino ranch last year that went 20 per cent crystallizable sugar.

The proper weight to work for is 1½ to 2½ pounds; a beet over 3 pounds is too large to carry a profitable per cent of sugar. I want to illustrate to you the proportions of a sugar beet. A beet should be equalized so that the area of the leaf surface is in proportion to the root—sufficient to secrete the carbohydrate from the air and deposit it in the root. That is why we look for large tops and small roots. We produce a richer beet than they raise in Europe or the other States of this country, because we have more sunlight.

The amount of seed that should be sown to the acre is about 15 pounds. You cannot transplant the sugar beet. The trouble is, that in pulling a beet up, the point, which is very fine and easily broken, breaks off and sprouts, when the beet grows out of shape and is worthless. The worms this year cut off the points and destroyed a large number of my beets. In thinning, you should space according to the soils. I thin from 6 to 12 inches—heavy, damp soils, about 6 inches; light soils, 10 to 12 inches, as the case may be. I give my orders for each field as to the distance to be left between the plants. It costs me $1.50 per day per man, including board. The cost per acre is from $14 to $28. It comes higher in other places, but I think, on account of our dry climate, we get along cheaper, as we have less weeding and cultivating than elsewhere. The ground for all beets should be rolled. First plow, then roll. In moist land that has an underdrainage of not more than 5 to 6 feet, you cannot plant early in the year.

The product should be about 15 tons to the acre and the price $4.50 to $5 per ton. Supposing they only get $4 per ton, that would be $60 per acre, and say it costs $30 per acre, we have left a profit of $30 per acre, and if your families do the work, most of this can be saved. Say a man has 10 acres.. Without counting what he can save by his own and his families' work, his profit would be $300. I rent people land that will raise them enough hay for their horses, so they can take care of their stock. A great many of the people, after doing their own work, will make quite a little money working around among others.

The plowing and putting in of the the beets takes two months, and thinning and cultivating two months; that is, four months in the year. I am plowing now to put in beets where I have taken off this year 2½ tons of barley hay to the acre, and on this same land I shall raise $60 worth of beets to the acre. We generally calculate to leave the stubble on the land; still, last year I turned the land over again and put in beets. The calculation is to plow the stubble in as a fertilizer.

Too much stress cannot be laid upon the benefit that the sugar beet culture is to the land in improving it for other crops. I have seen land that has been cultivated for 16 years, and the last crop was better in sugar than the first.

I feed the pulp to cattle and it makes splendid feed. My plan this year is to run it into silos and let it lie there about six months, and I calculate to feed it to my cattle during the winter months.

I expect to have 40,000 tons of sugar beets this year.

In plowing the land for beets, the calculation is to plow from 10 to 12 inches deep. New land must not be plowed too deep; I found last year I turned up too much cold ground. You can till new land eight inches, next year 10, and the following year 12 inches.

I have not touched upon the immense benefit the sugar business is to the whole country. We import $100,000,000 of sugar into the United States every year. The Pacific Coast alone uses 90,000 tons of sugar a year, you can estimate what that costs us. We can raise that ourselves just as well as not. Now, there is Germany, an old, worn out country, thickly settled, that ships 200,000 tons of sugar into the United States each year. These are figures we ought to think about. The drawing out of our country of this enormous amount for sugar is more than we can afford. There is a general complaint among commercial men and farmers about their being too little money and too little currency. The reason is we send too much of it abroad. If we can grow these things in the United States, we should do so, and thereby keep our money here and give thousands of our own countrymen employment. I think the State ought to encourage this industry by giving a small bounty to farmers. They are offering it in Nebraska, Kansas and Iowa and all those Western States, and I think it would be proper to do so here. With such land as there is around Pomona you can raise beets yourselves. Land that will grow good grain will grow good beets. I want you to understand that up on the mountain slopes and clayey soils will not grow beets successfully; the soil hardens too much and the roots will not penetrate. It will take 700 factories the size of the one we have at Chino to supply the United States with sugar; therefore there is no trouble to be apprehended on the score of competition; the more competition we have the better.

In California we have a great advantage in the seasons for raising beets.

On the dry land you can commence planting in February and March and the beet will go down deep, and is then in a position to stand almost any extent of drought. One trouble with this upland is that if you have a gravelly subsoil the beet won't thrive.

California is a country where the planting season is long and the harvest season as well. I commence in February and continue planting till the end of May. I expect to commence harvesting in the middle of July and keep on till December, whereas in Europe they only have two weeks for planting, and about 60 or 70 days for harvesting.

Flax and Hemp.

The census bulletin relating to the production of flax and hemp in the United States has been prepared by Mr. John Hyde, special agent in charge of the statistics of agriculture. It shows the total area of land devoted to the cultivation of flax in 1889 to have been 1,318,698 acres, the production of flaxseed 10,250,410 bushels, the production of fibre 241,389 pounds, the amount of flax straw sold or so utilized as to have a determinable value 207,757 tons, and the total value of all flax products $10,436,228. While flaxseed is reported from 31 States, Minnesota, Iowa, South Dakota and Nebraska produce 80.06 per cent of the total amount, or 1,035,613 bushels in excess of the entire production of the United States at the census of 1880. South Dakota had the largest acreage devoted to flax and Minnesota the largest production of seed. Of the States containing 1000 acres or upward in flax, Wisconsin had the highest average yield of flaxseed per acre, 11.42 bushels, and the highest average value per acre of all flax products, $13.39. The average yield for the entire country was 7.77 bushels per acre. Throughout the greater portion of the flaxseed-producing region flax straw is of little or no value, and much of the so-called fiber is only an inferior quality of tow, used chiefly for upholstering purposes. There are indications, however, of the revival in the United States of a linen industry that will afford a market for fine flax fiber of domestic production, and revive a branch of agriculture that has for many years been almost extinct. The total area of land devoted to the cultivation of hemp in 1889 was 25,054 acres, and the production of fibre 11,511 tons, valued at $1,102,602 to the producers. This branch of agricultural industry is confined almost exclusively to the State of Kentucky, which produced 93.77 per cent of the total hemp crop of the country. The average yield per acre for the United States is 1029 pounds, and the average value per acre $44.01 or $95.79 per ton.

A NEW GRAIN TAKEN FROM A WILD GOOSE.—G. W. Coplen of Latah is this year tenderly nursing a couple of stalks of wheat which have a curious history, says the Puget Sound *Mail*. In the fall of 1890 a wild goose killed on one of the islands near the straits of Fuca was found to contain seeds resembling wheat. These were planted and grew profusely, Mr. Coplen securing two sample grains where it had grown at Nelson, B. C. The grains are nearly twice the length of ordinary wheat, shaped something like a grain of rye, but much thicker. The two grains germinated quickly, sent up thrifty blades and are growing well. It is hoped this will prove a valuable variety. It would seem that the bird from which the original grains were taken must have found the plant in the remote north, and if no grain is found now cultivated in the known world like this, still further color will be given to the supposition that there is a polar sea with vegetable life on its shore.

THE grooming of horses is only secondary in importance to that of diet. Health is secured by keeping the skin pores open, and this only can be obtained by the currycomb and the brush, removing the dead epidermis thrown off in form of pellicles. He is a bad groom that employs the comb roughly and the brush lazily. Not only comb the mane and tail from time to time, but occasionally wash the latter with soap and water. It is a bad practice to cover saddle and carriage horses with rugs when in the stable, with the view to preserving them from catching colds, keeping the skin cleaner and the coat shining. The best service to render such a horse is to accustom it to cold, to harden it. A rug ought only to be thrown across a horse when, being warm, it enters a cold stable, and only allowed to remain on the animal till the normal temperature of the body sets in. Horses with short tails may be covered with a light linen, in order to keep off the flies when in the stable during the summer.

THE HOME CIRCLE.

The Watches of the Night.

Oh, the waiting in the watches of the night!
In the darkness, desolation, and contrition, and affright;
The awful hush that holds us shut away from all delight;
The ever weary fancy that forever weary goes
Recounting ever over every aching loss it knows—
The ever weary eyelids gasping ever for repose—
In the dreary weary watches of the night!

Dark—stifling dark—the watches of the night!
With tingling nerves at tension, how the blackness flashes white
With spectral visitations smitten past the inner sight!—
What shuddering sense of wrongs we've wrought that may not be redressed—
Of tears we did not brush away—of lips we left unpressed,
And hands that we let fall, with all their loyalty unguessed.
Ah! the empty, empty watches of the night.

What solace in the watches of the night?
What frailest staff of hope to stay—what faintest shaft of light?
Do we dream and dare believe it, that by never weight of right
Of our own poor weak deservings, we shall win the dawn at last—
Our famished souls find freedom from this penance for the past,
In the faith that leaps and lightens from the gloom that flees aghast—
Shall we survive the watches of the night?

One leads us through the watches of the night—
By the ceaseless intercession of our loved ones lost to sight,
He is with us through all trials, in His mercy and His might—
With our mothers there about Him, all our sorrow disappears,
Till the silence of our sobbing is the prayer our Master hears,
And His hand is laid upon us with the tenderness of tears
In the waning of the watches of the night.

—James Whitcomb Riley.

The Emblematic Eagle.

A Fourth of July Study.

Written for the RURAL PRESS by L. H. S.

The emblematic eagle is not, as one might suppose, an original of our young western republic. The honor and praise which we lavish upon it is in fact, its rightful inheritance from the sons of men. The eagle, it seems, developed very early in the world's history the ability to get itself elected to places of public honor and preferment, and succeeded in placing itself before the world even in the fabulous ages, as a fitting emblem of many of the valiant qualities which the multitudes look up to and revere.

The Book of Job, supposed to be a representation of the patriarchal age about the time of Moses, but written presumably in the days of Solomon, gives a word picture of the eagle, which is not paralleled any where in literature for its vigor and power of realistic description.

Doth the eagle mount up at thy command and make her nest on high?

She dwelleth and abideth on the rock, upon the crag of the rock, and the strong place, from whence she seeketh the prey and her eyes behold afar off. Her young ones also suck up blood, and where the slain are, there is she.

The eagle first introduced himself to the world in visible engraved or molten form, as an object to admire and adore, as Nisroch, the eagle-headed idol of the Ninevites. As Nineveh was founded about 2200 B. C. by Nimrod, known in the Bible as the "Mighty Hunter before the Lord," we may trace the connection of the fierce-eyed bird with the human family almost back to the time when the world was recovering from the great flood. From the analysis of the Rabbinical expositor, Rashi the commentator gravely explains Nisroch as a beam or plank of Noah's ark. Genesius suggests however, that the word is of Shemitic origin, and derived from the Hebrew *nesher*, which is in Arabic *nisr*, an eagle, with the termination *öch* or *âch*, so that Nisroch would imply "the great eagle."

Mr. Layard adopts this explanation:

Nisroch, the eagle-headed human figure, is one of the most prominent figures on the earliest Assyrian monuments; the same figure appears in the bas-reliefs in embroideries, and as ornaments of vessels.

The bas-reliefs always represent some conflict in war or encounter of the chase. A Nisroch is always represented as contending with and conquering the lion or the bull.

So this domineering bird has not changed its prominent characteristics in the past thirty-nine hundred years, for it has twice in our own times made successful warfare against the British lion.

Nisroch, as is shown in the Bible narrative, gave no protection to the overbearing monarch Sennacherib, who knelt in the shadow of the idol in its temple and was there slain by his own sons. Sennacherib had just returned from an ineffectual siege of Jerusalem, where he "came down like a wolf on the fold," and an "angel of the Lord smote in one night a hundred and four score and five thousand of the Assyrians." The ill-starred conqueror returned to die at the feet of the eagle-headed god, whe offered neither comfort nor aid to the tryant.

About one hundred years after the destruction of Nineveh, the Assyrian capital having been removed to Babylon, a Chaldean captive, a Judean priest, Ezekiel, saw in Babylon a vision by the river Chebar, a likeness of four living human creatures; they had wings joined together, and each figure had four faces, the face of a man, a lion, an ox and the face of an eagle.

The Babylonian kingdom was overcome by the Persians, and the eagle still seemed to go with the march of supremacy across the world. It was carried by the Persians as a standard of war and was probably the power referred to by the Judean priest in his vision.

Isaiah, also, prophesies of the coming of the Persian dominion, which was to supersede that of Babylon, as the coming of a "*ravenous bird* from the east, from a far country to execute the purposes of God."

The typical eagle of that time was probably the same as the Bald eagle of to-day, for the prophet Micah, speaks also about this time of the "baldness of the eagle" as a sign of mourning.

The eagle as a Falconidae is also referred to by Christ as a symbol of inevitable power and natural consequence.

The eagle is also used as a beautiful symbol of strength and protection in the nineteenth chapter of Exodus, where the Lord reminds Moses: "How I bare you on eagle's wings and brought you unto myself."

In mythology, the eagle generally represents the sun. The great mythical eagle of India, the Garuda, is the bearer of the God Vishnu—victorious by his brightness over all demons.

In the Scandinavian mythology, the eagle is a gloomy figure assumed by demons of darkness, concealed in gloomy night or in wind-swept cloud. The storm giant Kraswelgr sits in the form of an eagle at the extremity of heaven and blows blasts of wind over all peoples. And on the great tree Yggdrasil sits an eagle observing everything that happens.

When Zeus was preparing for his struggle with the Titans, the eagle brought him a thunderbolt, whereupon the god took the bird for his emblem He holds the bolts of Zeus in his talons, inspires heroes with courage and carries out the tyrannous behests of Zeus.

As an emblem of the immortal gods, he also became a symbol of abstract immortality and of the soul ascending after death.

From the analogy of the heavenly power of Zeus, the eagle also became the symbol of earthly power.

Ptolemy Soter made it the emblem of the Egyptian kingdom.

In the Roman story, an eagle was the herald to Tarquinius of his royal power, and it became one of the most important insignia of the republic. It was also assumed by emperors and adopted into medieval heraldry after the time of Charlemagne.

In the apothesis of the Roman emperors, an eagle ascending from a funeral pyre symbolized their reception among the gods. Even in Christian symbolism the eagle has preserved to the present day its significance as the symbol of St. John the Evangelist in the lecterns of churches.

As a standard of war, the eagle seems first to have been used by the Persians, and the Romans adopted the eagle as a standard of war in the year 104 B. C.

The most famous eagles of antiquity were those that so often carried the Romans on to victory. They were made of silver or bronze with outstretched wings and were carried before the legions upon long poles, just as the great armies of Napoleon, after 1804, carried gilded eagles with outstretched wings in place of banners.

The German imperal eagle was originally one-headed, and was first adopted by Charlemagne as a symbol of his empire after his coronation at Rome in 800, and it appears on the imperial banner at the time of Emperor Otto II.

The eagle is occasionally figured as two-headed toward the end of the 13th century, and is represented on the coins of Ludwig the Bavarian in 1325. The double-headed eagle may have symbolized either the eastern and western divisions of the Roman Empire or the union of the imperial and the kingly dignity.

The eagle continued to be the arms of the Holy Roman Empire to its close in 1500.

It was first crowned in the 15th century; later, the sword and scepter appeared in its claws, and on the breast of the eagle were the personal arms of the Emperor.

On the arms of the present German Empire, an eagle sustains on its breast a shield containing the arms of Prussia, also an eagle charged in turn with the arms of the Hohenzollern family. The Prussian eagle, being the original imperial eagle, was granted as a special mark of favor to the Teutonic knights by the Emperor Frederick II.

Austria has preserved the double-headed eagle of the earlier German Empire.

Russia assumed the double-headed eagle under Ivan III, to signify that the Czar sprung from the Greek Emperors, who had borne it as a symbol since the partition of the Roman Empire.

Poland has for a shield a white crowned eagle in a red shield.

In France, the eagle was assumed as his imperial symbol by Napoleon I. was set aside at his fall, restored by Napoleon III in 1852, but was once more abolished by the French republic in 1870.

The eagle was adopted by the United States of America as an emblem in 1785. It was imported from ancient Rome, just as the word "Senate" was. "The young republic," says Edmund Randolph, "boasted that they were treading upon the republican ground of Greece and Rome."

An eagle crest is found on a seal of Washington in the British Museum, on a letter written in 1758, and resembles one since discovered on the will, dated 1751, of Lawrence Washington, brother of General Washington. The eagle was the normal crest of the Yorkshire line of Washingtons, and the same use of the eagle is traced from Robert Washington of Brington to George Washington in Virginia.

The American eagle is dark brown with outspread wings, having in one of its talons a bundle of arrows, in the other an olive branch, bearing on its breast a shield whose upper part is blue and under part silver crossed by six red vertical bars. In its beak it holds a band with the inscription "*E pluribus unum*," surrounded by thirteen stars.

In James G. Percival's grand epic on "The Eagle" occur the following beautiful lines on the bird as the American emblem:

"But then came a bold and hardy few,
And they breasted the unknown wave;
I saw from far the wandering crew,
And I knew they were high and brave.
I wheel'd around the welcome bark,
As it sought the desolate shore,
And up to heaven like a joyful lark
My quivering pinions bore.

"And now that bold and hardy few
Are a nation wide and strong;
Danger and doubt I have led them through,
And they worshiped me in song;
And over their bright and glancing arms,
On field and lake and sea,
With an eye that fires and a spell that charms,
I guide them to victory."

True eagles inhabit all regions of the world, of which seven or eight species at least are found in Europe, the Sea eagle of the east of Asia being the finest and largest. The Golden eagle is widely distributed in Europe, Asia and America, of which the Imperial eagle is a closely allied species.

The white-headed or Bald eagle is the chosen emblem of the United States of America, and is by some considered a distinct species.

The genus Aquila of the Falconidæ family is characterized by hooked beaks and sharp, powerful claws. They have great powers of flight and vision, and are solitary in their habits. Large specimens measure 3½ feet in length and nine feet expanded wings. They breed in mountains or forests. They are all monogamous, and it is said that a pair will live together in perfect harmony till death. They are thoroughly attached to their young, and will not forsake them even if the tree on which they rest be enveloped in flames. Their tenure of life, it is supposed, will extend to one hundred years.

The Bald eagle is so called on account of its white head, neck and tail. It uses the same nest year after year.

The eagle is domesticated and used by the Kirghis Tartars, who call it Bergut, for the capture of antelopes, wolves and foxes. It is carried hooded on horseback, or on a perch between two men, and released when the quarry is in sight. Such a bird, when well trained, is valued, says Pallas, at the price of two camels. It is quite possible that more than one kind of eagle is thus used, and the services of *Aigle heliaca*, the supposed Imperial eagle, may be also employed. However, it is uncertain just what species of eagle may have been the Alis Jovis, the traditional emblem of Roman power. We only know that no Bald, or American, eagle has ever been enticed from his eyrie home against the azure blue, to be domesticated to base uses.

Doubtful Compliments.

Written for the RURAL PRESS by ELSIE ANGE.

How many people there are who honestly wish to be agreeable to others, but fail in the attempt! They are continually giving offense, when, in reality, they are desirous of expressing their admiration for or their appreciation of the persons they address. Have we not heard them deplore having been misunderstood in such language as the following:

"I wonder why Miss Brown treats me so coolly. I always try to be pleasant with her, but she seems to resent everything I say."

"I cannot understand why Mr. Jay is so reserved. He was very friendly when I first met him a year ago, but now he seems like a stranger."

Now, the coolness of the lady and gentleman is doubtless owing to the want of *tact* on the part of the person desiring their friendship. For instance, the latter meets Miss Brown and tells her how charming she looks. Miss Brown is pleased, when Miss Rasp continues:

"I came very near passing you. I could scarcely believe it was you. That hat makes you look so young and pretty. It changes your appearance entirely."

Is Miss Brown to be complimented because she is told she is looking unlike herself?

Mr. Jay spends an evening at Miss Rasp's. He loves music and sings at her request. Miss Rasp is delighted, so is Mr. Jay. He beams back his thanks, when Miss Rasp electrifies him by saying:

"Your singing is a surprise to me, Mr. Jay. I thought you could not sing a note. Your voice is so weak and thin in conversation, I was afraid you were consumptive."

Miss Rasp thinks that she impresses him as being kind and sympathetic. She does not know that her skill as a musician nerves him to make a second call. This time he learns that she has thought him ten years older than he is because she has discerned a thin spot on the crown of his head that he hoped no one knew of but himself. But "music hath charms," and he ventures a third time, never to return. What man of five feet four inches could, after learning that he had been considered fully three inches shorter than he is!

Miss Rasp met an acquaintance she had known from girlhood.

"I want you to tell me by what secret you retain your youth," she said. "You look exactly as you did when you went to school fifteen years ago."

The person addressed was a sensible woman, and rejoined laughingly that she would be sorry if she looked as old at sixteen as she did then.

"O!" said Miss Rasp. "You were not a young looking girl. You were so tall and sedate. I thought you were dreadfully old."

When they parted, the lady was glad that her meetings with Miss Rasp were few and far between.

Again, a bright, sprightly woman on the sunny side of middle life was entertaining some friends, when Miss Rasp exclaimed: "Mrs. Smith has learned the art of growing old gracefully."

The remark was ignored, and any one would think that Miss Rasp would be more cautious of her words afterward; but she said later at supper:

"Mrs. Smith, the highest praise I can pay this coffee is that it tastes just as my mother's did when I was a child."

Another guest tactfully changed the subject. It was evident to every one but Miss Rasp that she was making a mistake in classing Mrs. Smith among elderly women. And Miss Rasp cannot understand why she is no longer invited to Mrs. Smith's parties.

If people were more studious of the expressions they use, there would be fewer of these doubtful compliments which are so productive of vexation and annoyance. I have a friend who resents any one speaking of her "smiling face" as an impertinence. This is what she says: "There is nothing exasperates me like having any one say that he saw my smiling face here or there. It isn't pleasant to have people speak as though I am always grinning like a monkey or an idiot. If they must allude to my expression, why cannot they say it is bright or cheerful or pleasant instead of harping continually upon that threadbare word 'smiling?'" She has, in consequence, cultivated a cold, haughty bearing which is far from being as attractive as her former vivaciousness was.

Other words which usually excite resentment are "good-natured" and "clever" when they are used in the same sense. A lady was spoken to in this manner: "Yes, Mr. Blank often speaks of you. He says he

likes you because you are so good-natured."

Instantly, that adjective rankled like a thorn in the flesh. Could not Mr. Blank have said that she was kind or genial or even-tempered? There were so many pleasing words that he could have chosen from; then why select one that was so annoying in its effect? Then she wondered if she were not over-sensitive in regard to the matter. She resolved to put it to a test. So in calling upon a relative, she said: "By the way, Jennie, I have a compliment for you. Mr. Blank says he likes you because you are so good-natured."

Jennie's eyes flashed, and she replied indignantly: "I don't appreciate a compliment that you can pay a pig or a fool!"

Another very usual way of giving offense is that of complimenting young people upon their youthfulness, thereby inferring that they appear younger than they are. A blooming mother or a young wife will be told that she is young-looking, when she is really but a girl in years.

A man noted for his gallantry thus accosted a young married woman: "Mrs. Adams, I must compliment you upon your appearance. I mistook you for a young lady." "I am not old enough to appreciate that compliment, Major Grey," she answered. And his look of discomfiture showed that he had learned a lesson he was not likely to forget.

Then, too, many people spoil their compliments by saying too much. They make a good beginning, but a disastrous ending, as a young man did who approached a lady and congratulated her upon the success of some work she had undertaken. "I am charmed and delighted," he said.

The lady thanked him for his appreciation. Then he continued: "I cannot tell you how astonished I am to find you so witty and possessed of such ability. I had an entirely different opinion of you." Yet that young man thought he was extremely complimentary!

Another man told a girl that she had the most beautiful eyes he ever saw, and then went on to tell her how faulty her other features were. If he had stopped at her eyes, he would probably have won her friendship; but she never liked him, while he deplored the icy reserve on the part of the charming Miss Lovely toward himself. It was simply owing to his want of tact, which, after all, is the cause of many doubtful compliments.

Old Franz' Song of the Angels.

Written for the RURAL PRESS by ALICE KINGBURY COOLEY.

In a quaint garret in Paris lived an old musician. He had been second violinist in a minor theatre till, shielding a child from death in a terrible fire, he was badly injured. The parents were profuse in their thanks, and then—he was forgotten; so neglected, he became a paralytic and lost his place in the orchestra. He would have starved but for his one friend, the little dancer, who, besides helping, encouraged him to write music with his left hand.

One day, Fifine noticed Franz' happy look and said:

"What so pleases monsieur, to-day?"

"Aha! did you notice it, ma petite? The angels sang to me such melody, and to-day I wrote it, but I shall never play it, the *beautiful* soul that is here"—he tenderly touched his violin, "Franz can never summon again; one-half of him is dead, dead." His head drooped lower and lower till it rested on his loved instrument, and soon Fifine saw a little stream trickle down its side and sparkle in the sunlight.

"O, don't weep, dear monsieur! Take a beautiful walk instead." She, coaxing, put on his hat and they started.

"I would like to hear my Song of the Angels before I die," he said, "but that can never be; old Franz can never play again."

"Why does not monsieur let the orchestra play his beautiful piece?"

"Ah! would they, Fifine, would they?"

"Why does not monsieur try?" So it was all arranged what to do, as they drank their sugared water in a little "garden."

* * * * * * * *

At last the "Song of the Angels" was to be played. Franz, tremulous with joy and fear, sat with Fifine close to the orchestra. Soon the notes of the "Song" began. Franz looked troubled, then angry, then horrified.

"Ah! the violin," he muttered; then with a sudden motion he snatched the instrument from the leader's grasp, and, drawing the bow with a master's hand, poured forth such a flood of melody that the orchestra, amazed, ceased playing, and the audience listened spell-bound. As the "Song" ended, the violin fell from Franz' nerveless hands and he sank to the floor.

"I have heard it, Fifine; the soul came back at Franz' call. Did not the angels sing, Fifine?" The supreme effort breaking the paralysis, had also snapped the silver cord. Old Franz died with a seraphic smile upon his lips.

YOUNG FOLKS' COLUMN.

My Trip to Bogus Settlement.

Written for the RURAL PRESS by DUANE MORLEY.

In the year 1842, my father kept a supply store in the wilds of Michigan, bought furs of the hunters and friendly Indians, and in return sold them their supplies of food and ammunition. At the time I speak of, I was a strong boy seventeen years old, and always, when not assisting at the store, commissioned to do some errand or other in the settlement where my father's store was situated. Sometimes, though not often, I was sent miles away into the forest to carry some special article of merchandise to some hunter's camp, or, in its stead, deliver some message of consequence.

Prior to the date I mention, a gang of counterfeiters had built and occupied upon the banks of Pine river, and at a point 30 miles north of our place, a long, low, two-roomed house. Ostensibly, it was for hunting and fishing purposes, being not only upon the banks of Pine river, but near Pine lake also.

The settlements about that time becoming flooded with spurious currency, these fellows fell under suspicion, their camp was raided by the authorities, some of their number being captured along with the implements of their unlawful trade. At the time I speak of now, and for months before, the house was the residence of a man by the name of Goodleigh, his wife and daughter. He was the partner of a man by the name of Walker; the latter engaged in general trade at Pontiac, and the two together managing a trading post at this point in the old two-roomed house. To this place I was sent in the early spring of '42 to perform a responsible mission. My father had bargained to deliver for Walker to Goodleigh the sum of seven hundred dollars, paper money, and as he could not go, the task of delivering it fell upon me to perform. To make the trip was a pleasing and novel idea to me, as I had never penetrated quite that far into the northern wilds. I was rigged out for the trip with a horse and saddle, a small sleeping tent and some provisions. Then, mounted, with a small rifle in my possession, out I started.

The money was carefully placed in between the outer fabric of my pantaloons and the strong inner lining, and I was told to place it in Goodleigh's hands, and his only. Except from prowling wolves, there was no cause for fear, for the Indians were friendly, and among them all my father was held in high esteem. Over three-quarters of the way I made excellent time, nothing of note happening, and but little game making itself visible.

The ground was fast thawing out, and along a strip of marshes which I had finally to cross, by a tongue of hard upland, the path was very spongy and troublesome to the horse. I was anxious to get over ere nightfall and camp somewhere in the clumps of undergrowth on the other side. And, as I had luckily shot a brace of partridges on the near side of the marshes, I was, while slowly picking my way along the tongue of hard, or upland, revolving about in my mind how I would pitch my tent, prepare my fire and toast my birds in its blaze. All at once from out the thick brush, I was confronted by two desperate-looking fellows, both of whom were armed with rocks. One of them demanded my gun, but, instead of yielding it, I tried to bring it to bear upon them, realizing that the fellows were nothing short of desperadoes.

Before I could bring my gun to bear, I was hit by the rocks, one of them striking me upon the head and rendering me unconscious. When I came to myself again I was in an Indian's wigwam. It belonged to Canobway, an old chieftain, a man of good heart and great native intelligence. Above me, as I lay upon a bed of soft furs, bent the form of Kisco, niece of Canobway, a half-breed, born in lawful wedlock. Kisco quietly told how Canobway had found me insensible, my clothing torn and my face and head still bleeding. Evidently my assailants had left me for dead. After bringing me to his wigwam, Canobway had returned to investigate the trail for traces of the robbers. A nourishing broth of venison was served me, and after a little sleep I was nearly myself again. By daylight again, Canobway had returned and was in full preparation for a thorough pursuit of the robbers, who had despoiled me of my horse, gun, pocketbook and the little change in the same. The Goodleigh money was yet safe where it had been sewed into my pantaloons.

Kisco understood English, and my account of how I had been waylaid was plain to her. When Canobway heard it, he stretched himself up to his highest in the centre of the tent, swung his tomahawk over his head and exclaimed, "Heap bad pale faces! Canobway catch 'em, sure." We left the camp in the possession of Canobway's squaw—Canobway leading, Kisco following next, and myself last. Frequently the old chief would motion us to halt while he pushed forward alone. At the cry of a bird, or the imitation of it, which Kisco well understood, we would take up our march again. Coming up to an open space in the forest, near some marshes, Canobway held a short conference with Kisco, and then left us again. He was gone nearly an hour, returning to cautiously lead us forward along a circuitous way.

Then it was nightfall, and suddenly we came upon what appeared to be an illuminated haystack, a light shining from within it through an open doorway and through the interstices of the structure itself. It was a rude affair of poles covered loosely with coarse marsh grass, and standing in a thicket of pines. Confusion reigned within it, and whinnys of a horse and rude oaths of a man issued from it. The old chief gave a low grunt of satisfaction, laid his hand lightly on Kisco's shoulder and motioned us to remain behind. Then he ran swiftly forward and peered within the building. Then he fiercely swung his hatchet in a circle and flung it within, quickly clubbing his rifle and following after it. As Kisco and I reached the building Canobway came forth, dragging an insensible man. With our help he soon had the fellow gagged and bound to a tree.

The horse was my own and my rifle stood in a corner of the structure. Seizing the gun and extinguishing the light, we pushed rapidly forward. We were near Bogus settlement, its exact location being 20 yards up from the river on a rising bit of ground. One part of the two-roomed house was devoted to merchandizing, the other to domestic uses. Coming up to it, the family part we found in darkness, while bright light gleamed out from the store part. Peering in through the unchinked logs, we beheld Goodleigh bound to a post and two burly, wicked looking fellows going through the goods. Drawing back into the shadows, we talked a bit. Then Canobway reconnoitered an underground passageway which led from the back of the building to the river. Soon returning, he stationed me at an angle of the house and in its shadow. The plan of attack was as follows: Kisco was to attract attention at the front, and, under the ruse of having a pony mired, secure help of one of the men, and as soon as he should come forth I was to rush out and attack him, while at the same moment Canobway was to force an entrance from the rear. The plan was successful, for both of the plunderers were taken by surprise and easily captured. In the pockets of one of them was found my old purse and jacknite. Goodleigh we speedily released from his bonds and his family from the dark room where we found them confined. In their stead we chained up the robbers, including the one found at the marsh-grass stable. Making a search of the surroundings, we found in and about the stable base metal and some counterfeit coin.

Delivering the seven hundred dollars over to Goodleigh and leaving him and Canobway to hold the fort, I took Kisco up behind me on the horse, and by way of the wigwam rode back to my father's store to notify the authorities of our capture and put in our claims for the reward, there being a standing reward of two hundred dollars for each counterfeiter apprehended. It was quite a plum for us, and it was the last of the counterfeiting and plundering in those parts.

At another time, I made a trip to Bogus settlement, but as Goodleigh's daughter was the magnet drawing me, I'll not relate it here.

THE right faith of man is not intended to give him repose, but to enable him to do his work. It is not intended that he should look away from the place he lives in now, and cheer himself with thoughts of the place he is to live in next, but that he should look stoutly into this world, in faith that, if he does his work well here, some good to others or himself will come of it hereafter. —Ruskin.

AND how shall the higher life be won? And again we must answer as we answered before, by personal allegiance. No other power is large enough and flexible enough to make it. Loving obedience is the only atmosphere in which the vision of the general purpose and the faithfulness in special work grow in their true proportion and relation to each other.—Bishop Brooks.

DOMESTIC ECONOMY.

STRAWBERRY AND RASPBERRY SHRUB. Strawberry and raspberry shrub are made as follows: On four quarts of berries pour white vinegar enough barely to cover them. Let them stand for 48 hours. Then drain off the vinegar, squeezing the juice out of all the fruit with the vinegar. If strawberries are used, the vinegar must be poured over a second supply of the fruit before it will attain the proper flavor; but one supply of raspberries is sufficient. Measure out the liquor when it is ready, and to every pint allow a pound of sugar. Put it in a porcelain-lined kettle with the sugar and let it boil for ten minutes, then bottle it and set it away in a cold place. A cupful of this syrup is sufficient to flavor one quart of ice water. Either kind of shrub is very ornamental served in lemonade glasses with little handles, and is a pleasant, refreshing drink.

CHICKEN FRITTERS.—One cup chicken stock, one heaping tablespoon flour, one tablespoon butter, one-half teaspoon salt, one saltspoon celery salt, one cup cold chicken. Mix the flour smoothly in the hot butter, add the boiling stock gradually, and, when smooth, add the seasoning. The sauce should be quite thick. Pour half of the sauce into a small, shallow dish (buttered). Chop the chicken fine, and when the sauce has crusted over a little, spread the chicken evenly over the top. Then cover with the remainder of the sauce. Place on ice, and when cold and hard, cut into inch by two-inch pieces. Dip them quickly in fritter batter, and fry in hot, deep fat.

VEGETABLE SOUP.—One bunch of celery, one pint of stewed tomatoes, one onion, three carrots, four turnips, a little salt. Chop all the vegetables, except the tomatoes, very fine, and place them in the pot over the fire, with about three quarts and one pint of hot water. Let them cook slowly about an hour, then stir in the tomatoes, and boil about half an hour longer. Remove from the fire, and rub the mixture through a colander, then return the soup to the fire. Now stir in a tablespoonful of butter and half a cup of milk, with a little cornstarch or flour mixed with it. Let the soup boil up once, and it will be ready for the table.

CREAM OF RICE.—To one quart of consomme add a pint of rice prepared as follows: Boil the rice in three pints of milk until tender; rub it through a sieve and add the milk to it. Beat the yolks of two eggs and whisk them into the rice. When the consomme is slightly warmed, whisk the prepared rice into it, after which do not let it boil, but gradually bring to very near boiling point, and serve with toasted bread dice.

ASPARAGUS.—Cut off as much of the stalk as will leave the asparagus five or six inches long; scrape the remaining white part very clean; tie them in small even bundles; put them into boiling water and let them boil till tender, but not soft. Take them out with a skimmer and place neatly upon a thin toast laid on a dish, and serve immediately with butter sauce or cream sauce.

DRAWN BUTTER SAUCE.—One-half cup of butter, one pint of hot water, one-half cup of sugar, one-half teaspoonful of vanilla or the juice of one lemon, one tablespoonful of flour or cornstarch made to a smooth paste. Turn into the rest and let it boil five minutes; add a little grated nutmeg.

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BAKING POWDER

Absolutely Pure.

A cream of tartar baking powder. Highest of all in leavening strength.—*Latest U. S. Government Food Report.*

FLORIST AND GARDENER.

California Pampas Plumes in Demand.

It seems that the demand for California plumes did not depend upon the political fate of the "plumed knight," as we anticipated in a recent issue, for the Los Angeles *Herald* says that pampas plumes from Southern California will form a feature of the political campaign this year in both parties. The Democrats have adopted as an emblem three white plumes mounted on a red standard, with a blue ribbon depending. An order has been given to Mrs. Strong of Whittier for 20,000 of them for use at the Chicago convention.

The Republicans have adopted a fan shaped design of red, white and blue plumes on a fan shape. The following article from the New York *Evening Post* is of interest in this connection:

"In the early days of last September, during a visit to Southern California, I chanced, while walking down Spring street, Los Angeles, to see in a show window, where artistic furniture and mantels were displayed, standing before a plate-glass mirror, a vase holding what seemed to be three beautiful white feathers, tall and fairly-like. A closer inspection showed a depth no ostrich plume can boast, for in its heart of heart was a soft salmon tone of great richness. I could not help exclaiming 'Grand! I must know something of the new beauty.'

"Upon inquiring I learned that the objects which attracted my attention were pampas plumes, the product of the 'King of Grasses,' which is cultivated quite extensively for the European market. This grass is a native of South America, growing on the famous pampas or plains, where the cattle feed upon it, which pampas give name to the cultivated article now grown and cured in great perfection in California, producing the artistic effect referred to, that is as surprising as it is beautiful.

"Feeling greatly interested in an industry so little known, I visited one of the largest plantations in Los Angeles county, Ranchito de Fuerte, fortunately during the harvest season, thus witnessing the entire process.

"The plants or clusters, bush-like in form, are from 10 to 12 feet high, about the same in diameter and stand in rows 16 feet apart. Very little care is given the plants (they are evergreen) until the irrigation season, which lasts from early May until the middle of August. Water is used every 14 days. The harvest begins about August 26th, and continues 17 days. Before the husks open the long spikes are cut by laborers, their faces protected by masks and their hands by gloves, with gauntlets, as the edge of the grass is sharp as a knife. From the place of growth to the shade of trees, the plumes are taken in wagons. Shuckers sit under the pepper and orange trees stripping off the casing of green covering the plumes. Those who have practiced for a few years can shuck from three to four thousand a day. As this work is paid for by the thousand, long days are made.

"Next come boys who lay the fresh silky plumes—soft green in color—upon the smooth earth, prepared by rolling to receive them. About three hours are required at this stage to make them white and fluffy. They are gathered up and carried by arm fuls into the curing-house; here expert manipulation develops tone and a silk-floss finish that gives them their chief beauty. In the process they are handled sixteen times. No labor-saving machines can be used. A certain nicety in handling, a quick eye and ready hand, makes it an industry where women and girls can be employed. About sixty hands were required in the harvest of which I write. Plumes left upon the plants to open naturally are of no value, except as ornaments to the grounds.

"Great improvements have been made in the curing process during the past two years. The old method produced a beautiful plume, but very brittle. The best grades measure 30 to 36 inches in length, and are shipped to Europe. Germany, Russia and Italy are the largest consumers. England is latest to appreciate their beauty, and no doubt the eastern cities will, ere long, follow in their use.

The plumes that sometimes are seen for sale on the streets here are used by florists to "fill in" with, but the finest go to Europe, where there is an appreciative market.

"The regulation 'three plumes' in a single vase were no doubt suggested by the Prince of Wale's coat-of arms, as there are large quantities sent to London, where they are quite the fad. About half a million plumes were sent to England for the recent holiday season. The question, What can Europe do with a million and a half plumes year after year? can only be answered by the appreciation of a thing of beauty that is a joy for ever."

New uses for these plumes; or new methods of using, are developed every season. The artistic sense finds expression in endless designs that grace receptions, balls, church weddings and private houses on every festive occasion. As fabric for decorative purposes, none other produce their fairy-like appearance. It is essentially a wall decoration. Friezes, dadoes, etc., are made of wire, in art designs, and covered by the pampas stripped from the stem; while fringes for bordering mantels and book shelves, mats and rugs, and also tapestry hangings for the walls can all be produced by skilled hands. They are used in connection with draperies and soft India silk scarfs in colors to suit the apartments to be decorated and the taste of the hostess. They are also dyed, as silk or cotton can be colored, a favorite use is to adorn each room in a different color.

"For ceilings, festoons are made as we see "greens" fastened to wires or ropes, or the Childean or other square effect can be outlined by a soft feathery beading. A house so decorated becomes a fairy palace, unique and artistic.

"In California, the home of floral decorations, these plumes are used in combination with bamboo rods, are employed in frame work, that is then covered. A favorite design is the Japanese sea garden—a row down each side of a banquet hall hung with lanterns and decorated with bright colored scarfs, making charming booths in which to sip a cup of bullion.

One advantage in using these decorations is that they may be made extremely expensive or otherwise. The labor put upon the designs may cover several thousand dollars on a single entertainment.

This fabric bears the same relation to the art decoration that the thread does to the point lace of which it is made. Artistic grouping of the plumes is always in favor, and the "three plumes," on a single vase, before a plate glass mirror, be they Prince of Wales "Ich Dien" or not, will ever be to me the most graceful bit of mantel decoration, just as I saw them in the show window last September, 3000 miles away in sight of the Pacific.

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DIVIDEND NOTICE.

SAN FRANCISCO SAVINGS UNION, 532 CALIFORnia Street, corner Webb; Branch, 1700 Market Street, corner Polk.—For the half year ending with 30th June, 1892, a dividend has been declared at the rate of five and one-fifth (5 1-5) per cent. per annum on Term Deposits, and four and one-third (4⅓) per cent. per annum on Ordinary Deposits, free of taxes, payable on and after FRIDAY, 1st July, 1892. LOVELL WHITE, Cashier.

DIVIDEND NOTICE.

The German Savings and Loan Society,
526 California Street.

FOR THE HALF YEAR ENDING JUNE 30, 1892, A dividend has been declared at the rate of five and one-tenth (5 1-10) per cent. per annum on Term Deposits, and four and one-quarter (4¼) per cent. per annum on Ordinary Deposits, payable on and after FRIDAY, July 1, 1892. GEO. TOURNY, Secretary.

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10, 12 and 14 ft.

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Every One Guaranteed.

No bearings, no springs, no wheels to get out of order. The simplest mill in the world.

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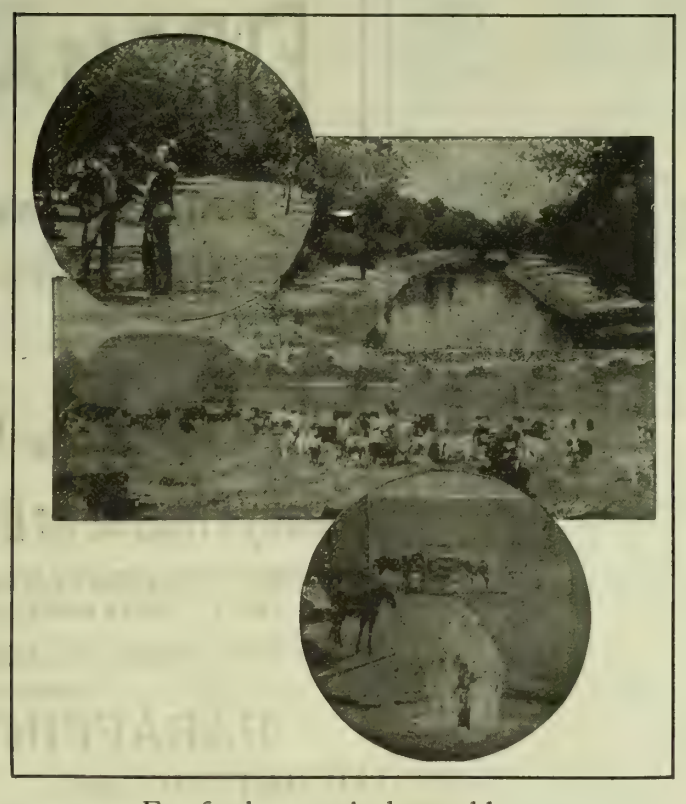

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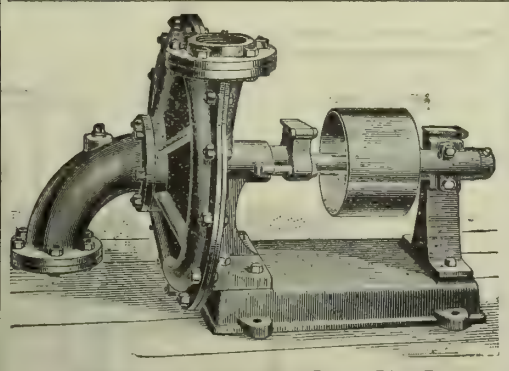

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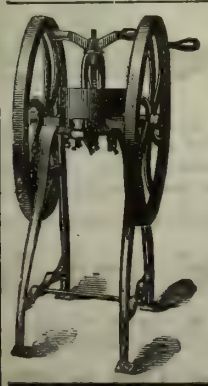

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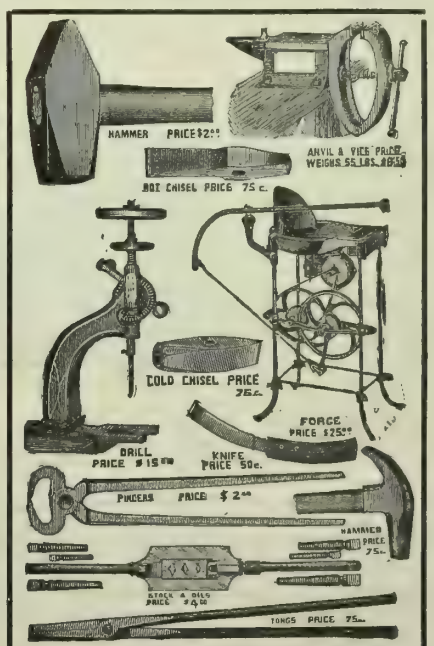

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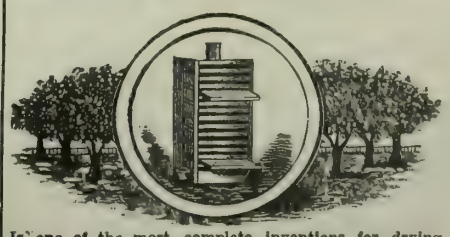

Is one of the most complete inventions for drying **Raisins** and **Prunes** by steam in 24 hours—other fruits less time. No sulphur or potash used. Retains all syrup, juice and flavor in original purity. Capacity, dries from 75 lbs green fruit to 20 tons. Send for circulars. **CALIFORNIA FRUIT EVAPORATING & M'F'G CO.,** 347½ S. Spring St., Los Angeles, Cal.

APIARIAN SUPPLIES. Golden Italian Queens. Tested, $2.00 each; untested, $1.00 each. L Hives, $1.90 each. Root's V groove sections, $5.00 per 1000. Dadant's comb foundation, 58c and 65c a pound. Smokers, $1.00 each. Globe veils, $1.00 each, etc. WM. STYAN & SON, San Mateo, Cal.

AGRICULTURAL NOTES.

CALIFORNIA.

Kern.

SOME WEEDPATCH CROPS.—Bakersfield *Echo:* An *Echo* reporter, in company with Under-Sheriff Valentine, took a brief trip over the Weedpatch one day last week and saw some grain that opened his eyes. At Verdier's place, in the Caliente overflow, was wheat and barley already harvested, and the stubble was again green with the second growth. This land is irrigated once or twice each year by the waters that rush down Caliente creek. The rest is a striking illustration of what can and will be accomplished in that part of the country as soon as the "78" canal is completed. A single irrigation on that land will insure a big crop of grain. Just what could be accomplished with the waters of Caliente creek if they were stored up next to the foothills and distributed through ditches, it is hard to tell. But it is safe to say that the present acreage irrigated would be increased many fold. But the most surprising thing to be seen out there is the splendid fields of grain grown by Messrs. Maschmeyer, Fowler and Knight. Along the foothills, near the "Rock Pile," are about 1500 acres of as fine wheat and barley as one could wish to see. There is not a weed to be seen in the whole field, and the grain is of uniform height and has large, well-filled heads. One hundred and sixty acres of barley just headed and threshed yielded 2496 sacks of grain that averaged about 125 pounds. The wheat is making from 10 to 12 sacks per acre, and is very plump and heavy. Another illustration of what can be done along the base of the mountains is seen at J. G. Stahl's place, near Rose's station. During the past week he has brought us samples of volunteer and seeded wheat and barley that are almost perfect. This grain stands about four feet high, the heads are of unusual length and are perfect in filling. Some of it made over two tons of hay to the acre. Mr. Stahl believes that by summer-fallowing that land, big crops could safely be expected every year. It has been observed for years that many showers of rain swing around next to the foothills when there is no precipitation at all on the plains, generally. This accounts for the extra fine crops near the mountains.

A NOVEL FARM WINDMILL.—Cor. Bakersfield *Echo:* Cumming's valley not only produces the best grain and hay in California, but it also is the home of genius. Mr. Denton Baisley has invented a wind motor which will propel a six gang plow, a mowing machine, or may be used as a delightful mode of conveyance. It is nothing more nor less than a windmill on wheels, which sails at great speed right in the face of the wind, but can be reversed by a lever accommodating itself to the wind from any quarter, and can be run by compressed air pumps without any wind at all. This novel machine was spoken of a year ago in a facetious manner in the Summit *Sun*. The invention was then in embryo. Since then a trial trip has been made on the ranch of Elijah Stowell with the most pronounced success.

Orange.

OCEANVIEW MESA OUTLOOK.—Cor. Santa Ana *Blade:* While visiting Ocean view mesa recently I was very much surprised to find such a large area in grain—something like 2500 acres are in barley, the most of which will be cut for grain. The average yield per acre is estimated to be eight sacks, which is considered very good for this season. In harvesting this crop six 12-foot headers are used, which require 25 men and 50 horses to handle them. The rope netting is used for unloading and stacking the grain. Threshing begins in about two weeks. Among the gentlemen who have large acreages are Messrs. Thompson, Pankey, Mills, Copeland, Matthews, Prothore, Lamb and Soles. It is a real pity that this beautiful spot of Orange county is not occupied by lovely farm homes instead of being occupied by a few nomads in the summer and as a sheep ranch in winter time.

Solano.

BARNHART'S LANDING.—Cor. Dixon *Tribune:* The grain is again accumulating in both our upper and lower yards, and schooners have already commenced to move it toward tide water. As we look north and east from the landing for miles there is one vast ocean of wheat and barley, and there are thousands of tons of grain on land that was never cultivated before; C. Mohring alone having from one to two thousand tons.

NORTHERN SOLANO'S FUTURE. — *Tribune:* Northern Solano is destined to become the greatest fruit country on earth. Its development in the past ten years has been something marvelous and there are yet vast possibilities before the industrious orchardist. The vast wheat fields of a decade ago have given way to thrifty orchards, dotted at frequent intervals with happy homes set in gardens of rarest flowers. One may ride from Dixon through the Vaca and Pleasant valleys and home by way of Putah creek, and his road for the greater part of the way leads through a continuous and unbroken line of orchards. The next ten years will witness the filling of the few gaps with trees and vines. By that time many of the largest tracts will be divided and set to fruit. The population will begin to increase instead of diminishing as under the era of cereals, and the general prosperity will increase in proportion. Northern Solano has always been considered a prosperous community, but from all appearances the future contains many more blessings for this favored section.

Sutter.

PRODUCTIVE YOUNG ORCHARDS. — Marysville *Democrat:* Ferdinand Hauss, proprietor of the large orchard on the river road about three miles south of Yuba City, has contracted to furnish 200 tons of peaches to the Marysville and Yuba City canneries, from his orchard. One hundred tons are freestone and the remainder clings. White, Cooley & Cutts have also contracted to furnish 300 tons of peaches from their young orchard near Live Oak, to be equally divided between the two canneries. Of this lot 200 tons are clings and 100 tons freestones. Mr. Hauss has also contracted to furnish 60 tons to the Sacramento cannery. Here is an illustration of what can be done in a few years on land in this vicinity, which only a short time ago was in the condition of thousands of acres more, common, plain lands or sheep ranges. There is less than 400 acres in these two orchards, but they are equal in value now to 1600 acres of wheat land of same quality. These places produce great quantities of other fruit as well as peaches, and there are several more like them near this city.

Stanislaus.

HARVEST NOTES AROUND WATERFORD.—Cor. Modesto *Herald:* Harvesting is going on in full blast. No idle men, except a few cronies, can be found around here. Fred Reynolds ran his harvester through what he thought was a poor piece of barley, and it turned out 350 sacks the first day. At Bishop's one can see as pretty a wheat field as one can find anywhere—800 acres as thick as it can stand, level as a table, and expected to yield 35 bushels to the acre. The probabilities are that it will yield more, as that club wheat generally goes far beyond all expectations.

Tulare.

POOR RETURNS FOR RAISINS.—Hanford *Sentinel:* Last season our esteemed townsman, E. P. Irwin, shipped through a firm that handled raisins in Hanford last year, 26,000 pounds of raisins. He did not get returns from his goods until recently and then at the close of a lengthy correspondence. But the returns finally came, and he tells us that his 26,000 pounds netted him 1¾ cents per pound. Is it any wonder that in the face of such results that our farmers are taking matters into their own hands and are organizing in self-defence?

NEW PROCESS FOR DRYING APRICOTS.—*Sentinel:* Chas. King is packing what he calls "Chas. King's New Process Evaporated Apricots." The pack at present will consist of a ton of dried goods put up in ten-pound boxes simply as a test. The fruit is from the orchard of W. G. Nicholson and dried whole, the pits being taken out through a small incision in the stem end. A sample box shown us is a handsome affair and very tempting.

THE EXPERIMENT STATION.—Tulare City *Citizen:* At the last meeting of Tulare Grange, considerable interest was taken in the discussion of the merits of various crops of grain and fruit experimented with at the Government Experiment Station near this city. Jules Forrar, who has charge of this station, in response to various questions, gave the result of experiments with a large variety of grain and fruits. He stated that several different varieties of wheat had given better results than the Sonora, so universally raised by the farmers of this valley; some of which had produced 46 pounds from six ounces of seed, planted in four drills, each 145 feet long. There is no doubt but the farmers and fruit growers of this valley could have saved heretofore a large amount of money and labor had they received the benefits of the practical experience and tests given to some varieties of fruits and grains heretofore boomed by nurserymen and others who were intrested in selling to the over-credulous farmer. Frequently, purchases of such varieties have been made that would have been a large saving to the purchaser had the money been thrown away. Parties who stock up with a new variety with high-sounding names have frequently been enabled by starting a boom, which gathered force and proportions as it traveled, to unload at exorbitant prices, accumulating fortunes at the expense of the masses, who lose many times more than the price of the worthless seeds.

ARIZONA.

A CANNING ESTABLISHMENT AT PHŒNIX.—F. B. L., in Tucson *Citizen:* One of the most useful, and what should prove the most profitable enterprise inaugurated this year, is the packing factory operating under the corporate name of the Phœnix Packing Company. The gentlemen composing the organization are late of Minneapolis. Their outlay for the construction of a necessary building and for plant amounts to $20,000. Their process is of popular adoption throughout California, and only merits special notice from the fact that it is the first establishment of the kind in the Territory. A few years hence such institutions will be so numerous that their existence may fail to excite comment. This company is a pioneer, and deserving of every encouragement and the special patronage of the people generally throughout the Territory. I am assured that the company is ready to compete with any on the coast. Operations began June 1st, and they are expected to continue throughout the season. The estimated probable output will be 50,000 cans of apricots, 500 gallons of jelly and 2000 cans of jam. The aggregate amount will be about half a million cans of various fruits and vegetables. E. Hidden, the manager, told me that 76 men, women and girls combined are on the payroll at present. The employment of many more may be found necessary later. Among the many orchardists in the vicinity is the practical horticulturist, R. E. Farrington. His fruit orchard, nursery and vines cover about 100 acres. He has just made a shipment to Chicago and New York of apricots, and if successful (being about the first to try the experiment in carload lots from Phœnix), he will soon commence the shipment of table grapes. The only question regarding its practicability is the freight. With the terms exacted of Californians, Salt River people can compete successfully with any section of the Pacific coast.

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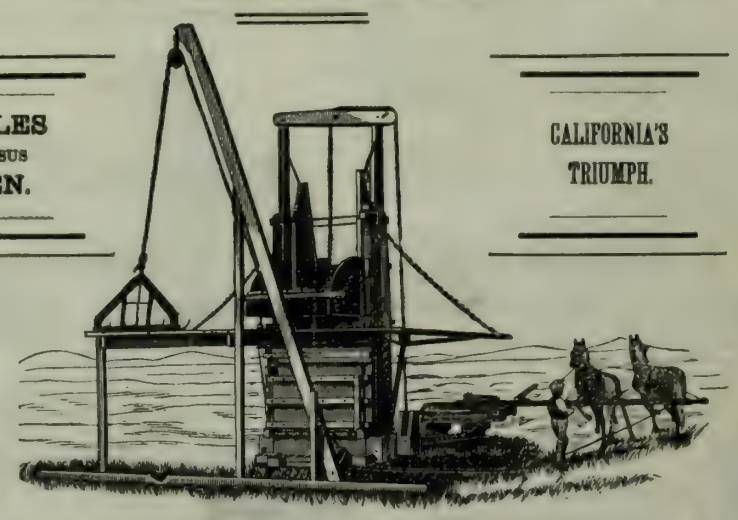

No tramping. No forking from the Stack. No cutting of Stacks Necessary. You can sit at a hundred-foot stack and bale it without a move. It makes the best bale in the market. You can put 10 tons in a car. The forking from the stack is all done by the horses. The baler can turn out more hay in less time and in better style than any other press.

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California's Capabilities are Beyond Comparison. Let Not Apathy Prevent Their Being Exhibited.

The State has Appropriated Over $5000 for Premiums for Soil Productions.

REMEMBER THAT THE GREAT COLUMBIAN WORLD'S FAIR opens in May of next year. Hence, all agricultural exhibits must be collected this year.

The State Board of Agriculture stands ready to assist the producer, and by gathering your exhibits and showing them at home at the State Fair, you can take advantage of the cash awards to assist you in the good work. All exhibits shown at the State Fair will be kept free of storage until their removal. BEGIN WITH HARVEST.

MERCHANTS AND PROPERTY-OWNERS in each county are interested as much as the farmer, and should lead in the ORGANIZATION OF COUNTY-EXHIBIT COMMITTEES.

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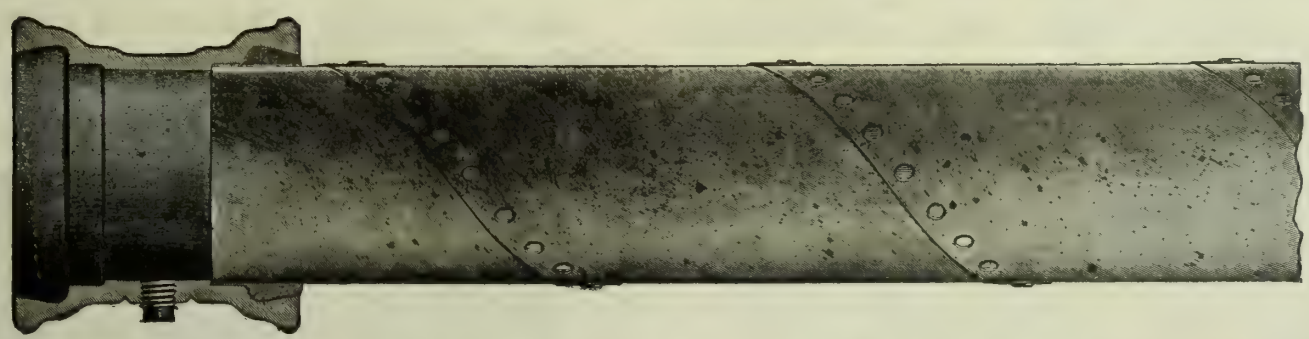

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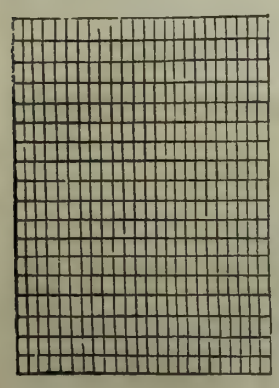

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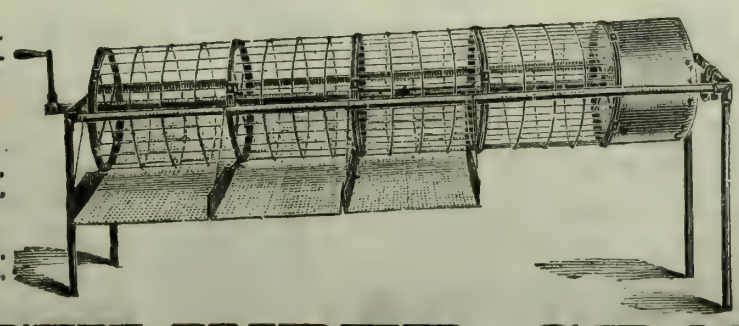

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Will Grade Green or Dried Fruit Equally Well.

In Use by Prominent Fruit Growers.

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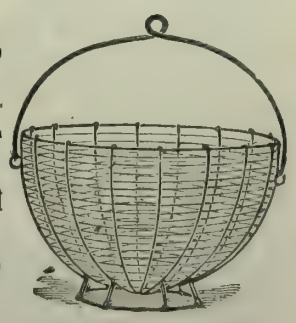

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Is the most rapid working machine for GRADING PRUNES, BOTH GREEN AND DRIED, that has ever been introduced. Wherever it was used last season it gave perfect satisfaction, both in the quantity of fruit graded and the way it did the work. The capacity is practically unlimited, as it will grade the fruit perfectly as fast as it can be fed to the machine.

I make all sizes of this Grader, from the large 30-inch cylinder down to a small hand machine for the use of growers whose crops are small. I furnish the Grader mounted complete, or the Cylinder alone, if, as is often the case, the purchaser prefers to mount it to suit himself.

Send for circulars and prices.

D. D. WASS, 141-148 First Street, San Francisco.

GOOD HEALTH.

Influenza and the Eyes.

The effects of the influenza epidemic were not without serious effects upon the eyes of many. It gave rise, we are told by Dr. Jeaffreson, to severe cases of ophthalmia in some cases, and by lowering the vital powers of those who were very aged or enfeebled by previous disease, converted eye affections, which would otherwise have been trivial, into cases of great urgency; indeed, its effects may be still noted in a marked manner, and it has left its stamp on the health of many which time and care can alone efface. A curious and instructive point as to the prophylaxis of this disease has been observed by Dr. Jeaffreson, who, we may mention, is physician to the Newcastle Eye Infirmary. It was noted that, though some 600 patients passed through the wards during the epidemic, no single case of influenza developed while in the institution. While taking the average of the ordinary population who suffered as being one in three, we should have had somewhere near 200 cases, or, at a very low computation, at least 100, during this period. Now there is one chief point in which the patients in this institution differ from the ordinary population outside, and that is that twice a day their eyes are submitted to a thorough and ample ablution with some antiseptic solution. It has been suggested by a very competent and keen observer that the poison of influenza effects its entrance to the general constitution through the medium of the mucous membrane of the eye, and a full account of this theory may be found in Dr. Parson's report to the local Government Board. This fact certainly appears to support such a theory, and it is further strengthened by another no less curious, and that is that of the staff, who, of course, are not submitted to this treatment, scarcely a member escaped, and some had it very severely, notably the lady superintendendent, the doctor, the porter, the nurse, and some of the servants. Should another epidemic visit us, Dr. Jeaffreson declares his intention of joining the ranks of the patients and submitting himself to ablutions of the eyes and nasal ducts twice a day with a moderately strong solution of some germicidal solution.

TREATMENT OF RHEUMATISM.—It seems as if everybody is complaining of rheumatism nowadays, young and old, rich and poor. Science, ever ready with something new to alleviate the sufferings of mankind, has not failed in this direction, and salol is now the remedy extensively used for rheumatism. The *Medical Times and Register* says: "Therapeutically, the anodyne property of salol is exhibited in the cases that are rheumatic in source." The first triumphs of salol were won in the treatment of acute rheumatism, excelling, as it apparently does, all other remedies in its power to abate and lessen fever. If all the conditions be propitious, by the end of the second and third day, fever and joint pain and swelling will have disappeared. Salol has a further use, in that it is antiseptic, and excellent results have been obtained from it when used as a disinfectant for the bowels in cases o cholera, typhoid fever, etc. In connection with the cure of rheumatism, it may be stated that of late years massage treatment has found great favor with rheumatic patients. In practicing massage, the fingers are usually moistened with some sort of oily preparation, and for this purpose nothing better can be used than lanoline. Many physicians consider this vastly preferable to vaseline or any other preparation, and its use has invariably been attended with the greatest success.

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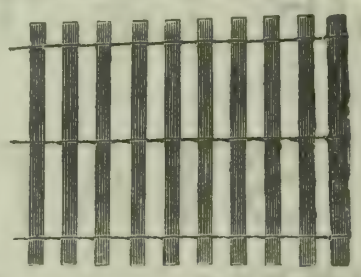

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Which is the result of years of figuring to make the best harness ever known for the money. It is made from oak stock, hand stitched and finished by skillful mechanics, handsome full nickel or Davis hard rubber trimmings.
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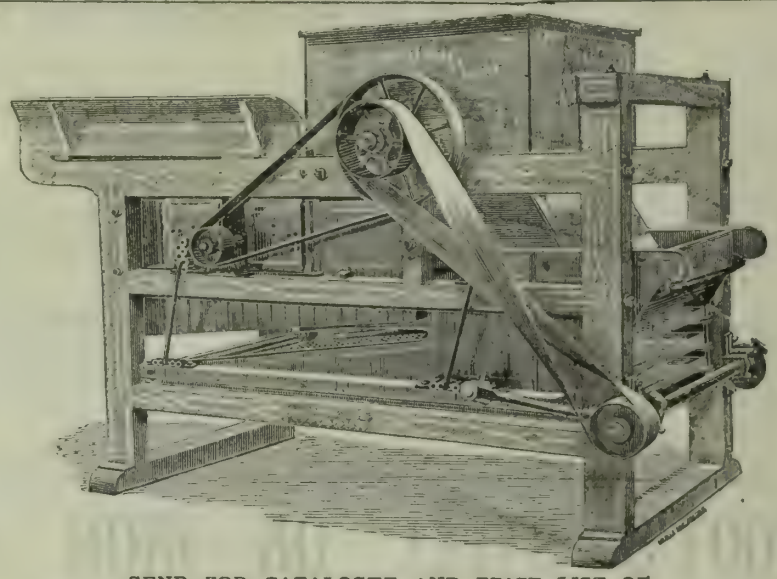

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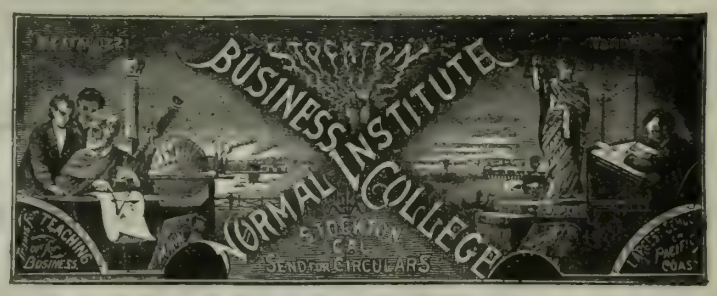

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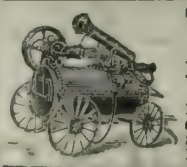

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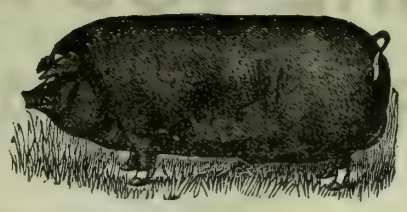

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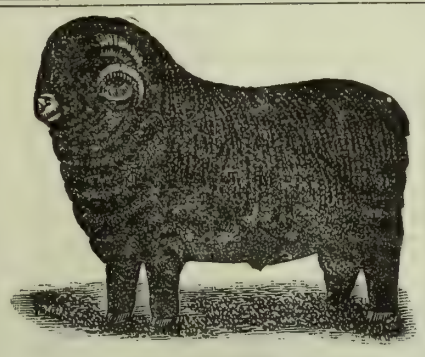

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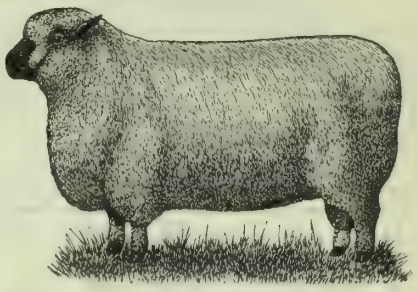

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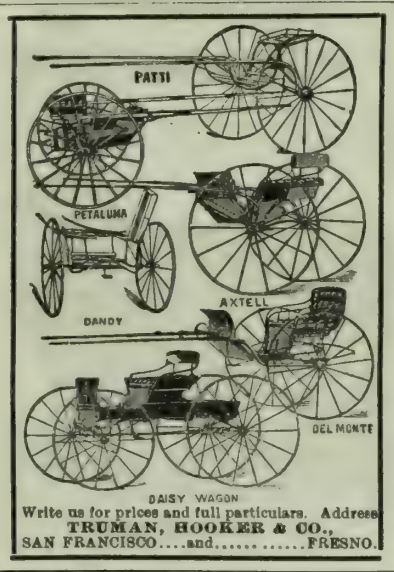

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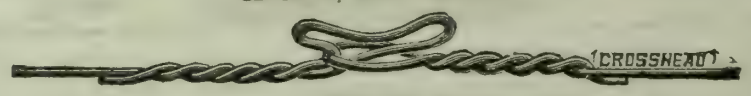

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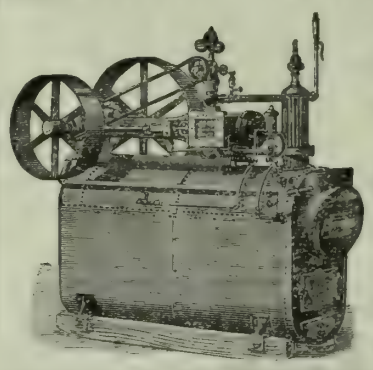
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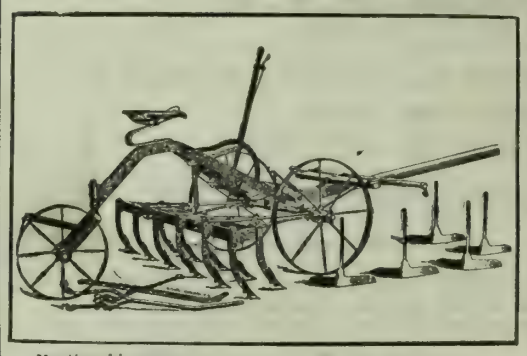
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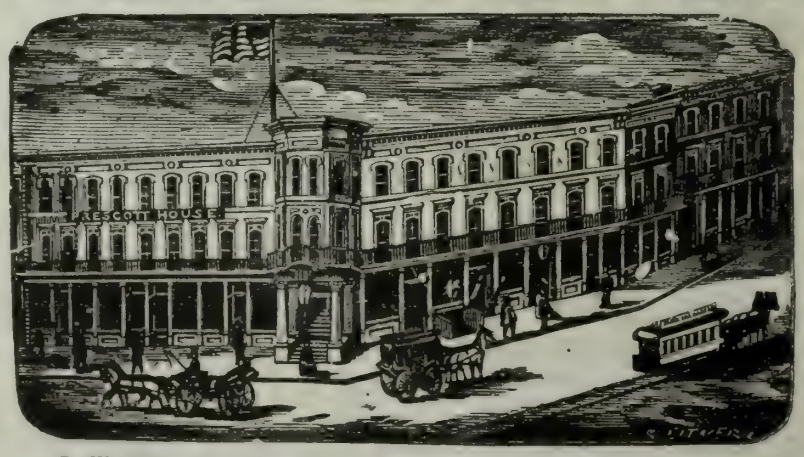

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S. F. MARKET REPORT

Market Review.

SAN FRANCISCO, June 29, 1892.

The season of 1891-92 goes out on a lamb-like market. It is to be hoped that the new season will be more profitable to agriculturists than the one just past. All information at this writing warrants the statement that the outlook for products in each leading farm industry is of the most favorable character. Farmers have done much to bring this about. As a rule, they are cultivating, in the latest and most approved methods, the best variety of everything grown that is specially adapted to each particular locality. By this they turn out larger and better crops, which, in selling, command the highest range of values. It no longer pays to market poor stuff, for the general public is discriminating more closely. The local money market is easy, with a large surplus of funds reported by the banks. To this there will be large additions next month, or as soon as the disbursements for interest, dividends, etc., find their way back into the general reservoir.

Foreign Grain Review.

LONDON, June 27.—Mark Lane *Express* says: English wheats are depressed by the withdrawal of the Russian prohibition. The outlook for the importers and farmers is bad; the 1,600,000 quarters of extra stock imported when the prohibition was enforced will now have to be sold at a terrible loss. American and Russian wheats have fallen 1s, Australian, Californian and Argentine, 6d. Oats are dull. At to-day's market, foreign wheats were 6d cheaper. English flour was irregular. Barley was 6d and Rye 1s lower. Oats were firmer.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	June.	July.	Aug.	Sept.	Oct.
Thursday	6s07½d	6s07½d	6s07¾d	6s08½d	6s08½d
Friday	6s07½d	6s07 d	6s07¾d	6s08 d	6s08½d
Saturday	6s06½d	6s07 d	6s07¾d	6s07¾d	6s08 d
Monday	6s06½d	6s07 d	6s08 d	6s08½d	6s08½d
Tuesday	6s06 d	6s07 d	6s07¾d	6s08½d	6s09 d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week.

	O. C.	P. S.	N. D.	Market for P. S.	Weather.
Thursday	34s6d	34s6 d	34s6d	Held higher.	Very hot.
Friday	34s6d	34s6d	34s6d	Weaker.	Showery.
Saturday	34s6d	34s6d	34s6d	Inactive	
Monday	34s3d	34s3d	34s3d	Neglected.	Hot.
Tuesday	34s3d	34s3d	34s3d	Quiet.	

To-day's cablegram is as follows:

LIVERPOOL, June 29.—Wheat—Higher prices asked, but no advance established. California spot lots, 7s; off coast, 34s; just shipped, 34s; nearly due, 34s; cargoes off coast, moderate demand; on passage, quiet but steady; weather in England, fair after rain.

New York.

The following shows the closing prices of wheat for the past week:

Day.	June	July	Aug.	Sept.	Oct.
Thursday	143⅞	144⅜	144⅞	144½	145⅞
Friday	143½	144½	144½	144⅝	145⅝
Saturday	143½	144½	144⅜	144⅜	145⅝
Monday	144	144⅜	144½	144½	145⅝
Tuesday	144½	144½	145¼	145½	146⅜

The following are to-days' telegram:

NEW YORK, June 29.—Wheat—86⅝c for June; 86⅝c for July; 87½c for September; 88⅝c for October; 89⅝c for November and 90⅝c for December.

CHICAGO, June 29.—Wheat—79½c for July; 79½c for September and 81½c for December.

San Francisco.

WHEAT.

	Seller '92.	Buyer Aug.	Aug.	Buyer Sept.	Sept.
Thursday, highest	138½	....	....	....	....
" lowest	138⅜	....	....	....	....
Friday, highest	138⅝	140½	....	140½	....
" lowest	138	140½	....	140½	....
Saturday, highest	137¾	....	....	....	....
" lowest	137⅝	....	....	....	....
Monday, highest	137¼	....	....	....	....
" lowest	137	....	....	....	....
Tuesday, highest	138	....	....	140½	....
" lowest	137¼	....	....	140⅜	....

BARLEY.

	Seller '92.	Buyer Aug.	Aug.	Buyer Sept.	Sept.
Thursday, highest	93⅝	....	....	....	....
" lowest	93⅜	....	....	....	....
Friday, highest	93½	....	....	....	....
" lowest	93	....	....	....	....
Saturday, highest	92⅝	....	....	....	....
" lowest	92½	....	....	....	....
Monday, highest	92¼	....	....	....	....
" lowest	91	....	....	....	....
Tuesday, highest	92½	....	94½	....	....
" lowest	92	....	94½	....	....

Markets by Telegraph.

Eastern Wool Markets.

NEW YORK, June 24.—The leading wool markets are quiet. Manufacturers seem to be waiting to see whether the higher prices being paid in the West will hold, and are endeavoring to prevent an advance by keeping out of the market. Meanwhile, new wool is coming forward and stocks are steadily increasing. Wools have, as a rule, been put up in a cleaner and better manner than for several years, and on this score should command an advance. Prominent dealers have freely expressed the opinion that Ohio and Michigan wools will show an advance of 1@2c ⅌ lb within the next 30 or 60 days. London sales have shown strong compaction among the buyers and a hardening tendency to values, but a comparatively small amount of wool suitable for this country has been offered. There is a good demand reported for Australian wools here, and while prices are no higher, they are very firm.

NEW YORK, June 25.—Sellers still incline to buyer's views of prices. An active business prevailed at the sea-board markets. Supplies are fuller, but not well sorted. This gives manufacturers a case against the suggested advance. Prices are no lower, and sellers seem satisfied to work off heavy, unwashed at the former rate, much more going direct to manufacturers. The cleaned basis for California is 52@53c; for short, fine and free, 54@55c; for long, staple Texas, 55@58c; Wyoming and Utah, 59@60c; Western good is active and steady. The sales at New York were 416,000 and 889,000 lbs foreign. Boston had an active week. The sale of domestic was 2,084,050 and 1,500,000 lbs foreign, over one-third of which was Australian. The rest was chiefly carpet. Philadelphia reports prices no better. There is a good disposition to trade in better stocks, but is still lacking in grades not wanted.

California Canned Fruit.

NEW YORK, June 26.—Canned fruits seem to be shaping right for future business. Baltimore will put up much less small fruit than last year. Peaches have already advanced.

California Dried Fruit.

NEW YORK, June 26.—Cheap dried goods are not likely to repeat the competition severely next fall, and last winter's pack of Pacific canned is firm, with 5 cents advance in a few instances. The new crop of coast is regarded with more interest.

Raisins—There have been no further large dealings. Remnants will go out, as there are only 25,000 boxes of Valencias held against 150,000 boxes last summer. New coast are not talked of.

Some cold storage bags of apricots are quoted at 12 cents.

Hops.

NEW YORK, June 26.—Hops still favor buyers; sales have been light on spot; brewers are picking up country lots cheap, which are pressed for sale by weak or tired holders; crop reports are favorable for the buying side of the market; there is no optional business of importance. State '91s range from 21@25c; Pacific, 21@25c.

California Beans.

NEW YORK, June 25.—Lima Beans—There is a strong market. Spot sales, $1.75@2.80, 1000 bags going to Chicago. Pacific Mail parcels to arrive, $1.70@1.75.

NEW YORK, June 27.—The bullish sentiment is steadily developing in California Lima beans, and some enthusiastic bulls predict an advance to $2 ⅌ bushel before August 1st. Spot parcels are about cleaned out.

General Remarks and Statistics.

Produce Receipts.

Receipts of produce at this port for 7 days ending June 28 '92, were as follows:

Flour, qr. sks	61,929	Bran, sks	3,754
Wheat, ctls	9,015	Buckwheat "	....
Barley, "	27,039	Middlings "	1,984
Rye, "	1360	Chicory, bbls	20
Oats, "	580	Hops, "	....
Corn, "	8,122	Wool, "	1,614
*Butter, "	1,055	Hay, ton	1,638
do bxs	616	Straw, "	94
do bbls	2	Wine, gals	153,850
do kegs	117	Brandy, "	5,400
do tubs	144	Raisins, bxs	3,160
do ½ bxs	434	Honey, cs	110
†Cheese, ctls	752	Peanuts, sks	211
do bxs	76	Walnuts "	....
Eggs, doz	32,060	Almonds "	....
do " Eastern	73,700	Mustard "	....
Beans, sks	12,190	Flax "	5664
Potatoes, sks	14,170	Popcorn "	....
Onions, "	5,436	Broom corn, bbls	....

*Overl'd, 282 ctls. † Overland, 18 ctls.

Receipts Outside of California.

The receipts of certain articles of produce from Oregon, Washington and other distant points compare as follows:

	July 1, '91 to June 27, '91.	July 1, '91 to June 25, '92.
Flour, ½ sks	410,643	475,957
Wheat, ctls	1,410,129	1,305,052
Barley, "	276,332	56,791
Oats, "	379,188	446,910
Wool, bales	11,119	11,588
Hops, "	508	431
Rye, sks	210	3,498
Potatoes sks	101,769	141,149

Cereals.

Bradstreet's estimates that the reserve, visible and invisible, on July 1st, will be 70,000,000 of bushels, and the crop about to be harvested 550,000,000 of bushels, making a total of 620,000,000, which, after deducting 368,000,000 bushels for seed and consumption, will leave 252,000,000 bushels for export and reserves, of which 200,000,000 can be easily exported, and, if necessary, 220,000,000, or as much as has been exported the current season. The estimate of 200,000,000 or 220,000,000 for export seems excessive. It is based on the crop estimate of 550,000,000, of which there is apparently no real prospect. There is no likelihood of so large a crop, and an export surplus of 175,000,000 bushels will probably come nearer the mark.

The total shipments of wheat from India for this season to June 18th have been 14,880,000 bushels, against 14,540,000 bushels for the corresponding time last year.

A cable from St. Petersburg, June 22d, says that a drought is prevailing in Toltava, and crops are being blighted. Sheep and cattle are perishing from lack of fodder.

The latest official mail report from St. Petersburg announced that the condition of the growing wheat is unfavorably spoken of in three central and three southern governments, but it is good particularly in the Caucasus, some northern governments and the whole of Poland. In the province of Nizhni-Novgorod and the eastern government of Kazan, a surplus is promised. The whole area of grain it is said exceeds that of last year by 25 per cent.

The June crop report of the Iowa Weather and Crop Service, from advices of 1500 country correspondents, shows the reduction in winter wheat area to be 3 per cent, and condition 86 per cent; spring wheat area reduced 3 per cent, condition 88 per cent. Acreage of corn 17½ per cent reduced, and with best conditions, prospects favor only 70 per cent of last year. The acreage of oats is reduced 11 per cent, and the condition is 82. The potato acreage is reduced 12 per cent. The conditions do not promise a yield of over 18,500,000 bushels of wheat, against 27,586,000 bushels last year. The corn crop of Iowa last year was 350,000,000 bushels, and 70 per cent would be 245,000,000.

The local wheat market has been inactive, owing to a strong bear pressure from buyers. So far as we are aware, this has been successfully resisted by farmers. A few sham sales, at lower prices, are said to have been made by and between bear operators. These sham sales were evidently made to have them published so as to get farmers to sell at a lower range of values. Toward the close of the week more samples are on the market, but whether in duplicates or not, it is hard to say. Many farmers send samples to two or more brokers or firms, and these, when offered, make it appear that more is for sale than there really is. This policy is short-sighted. Some of the exporters expect to be able to *borrow* wheat from one or two warehouses so as to meet urgent demands. By doing this, they are not forced into the market and compelled to pay higher prices. This loaning of wheat is entirely wrong, and should be guarded against. Buyers are bidding our quotations, but holders ask more money.

Barley has come to hand more freely, but the bulk is common grades and not desirable. These grades are largely sought for by millers to be used in turning out rolled and ground barley. The consumption of both rolled and ground barley appears to be enlarging. In the most of cases they give better satisfaction than either the whole grain or other ground feed. A strong effort is being made to force the market to lower figures; whether it will be successful depends largely on farmers. If the latter force sales, prices must go lower. There is more offering at the close; but so far as we can learn, no sales have been made at lower figures.

Oregon has sent us heavy supplies of oats, which are supplemented by freer receipts from southern coast ports. The grades of the bulk of the oats received are common to fairly good, so that the market for these is slow and lower. Naturally, the heavier offerings affect the more choice grades, although they are not quoted any lower.

Corn has sold to lower figures. Receipts have been free, while the demand has been sluggish; and to sell, concessions had to be made.

Rye is in fair supply. The market is dull at lower quotations.

Harvesting is under full headway. The outturn is, as a rule, larger than was expected, while the grain is generally plump and heavy. Many fields in which the straw was short, and which were thought would give a poor yield, turned out an average crop, while in all, the yield was larger than had been estimated. This holds good in both wheat and barley. A larger acreage has been cut for hay than thought possible, owing to favorable weather.

Feedstuff.

Dealers and feeders appear to be purchasing ground feed in a hand-to-mouth kind of way. This is evidently done to break the market to as low figures as possible and then stock up. Ground and rolled barley appear to be their chief aim. The receipts of bran and middlings are fair. There is a fair call for ground feed from lumbering camps.

Receipts of new hay have increased while that of old have decreased. It looks as if farmers are marketing their poorer grades, for the market is oversupplied with poor to fair. Receipts of new continue to come chiefly from river points. Oregon sent us some old hay the past week. It is claimed that the hay crop this year will be larger than that cut in 1891. Slowly maturing weather and lower prices for grain induced the increased cutting.

Dairy Produce.

It is now given out that the creameries in Carson and Mason valleys, State of Nevada, which are reputed to be controlled by a man named Evans Williams, are turning out oleomargarine. Considerable of this stuff is said to be marketed in this city as butter.

Butter has ruled weak throughout the week. Buyers have hesitated in taking much unless offered concessions; only in a small way were sales made at an advance on outside quotations for gilt-edged and creamery. It is claimed that considerable packing is going on, but of butter bought at inside prices. Eastern butter continues to come to hand.

A strong effort appears to be making to strengthen the cheese market, but so far it has proven futile, for receipts come in from unexpected quarters, and buyers will not stock up much beyond near by wants. Full cream cheese has a strong tone.

Eggs have shaded off. Large receipts of Eastern and a strong selling pressure caused prices for "as is" and also for fair to good candled to fall off, and as retail dealers were attracted to them the more choice had to be shaded. The market closes weak and in buyers' favor.

To-day, butter was very weak. The tendency is downward, for the sources of supplies are increasing and the outlet is decreasing. Packers are virtually out of the market.

We are informed that the statement made above that oleomargarine is made in Carson and Mason valleys, is evidently a mistake, but cheese is made principally of emulsion of refined lard.

Vegetables.

The market in garden stuff has been slowly declining under increasing supplies of seasonable kinds. The southern part of the State is sending us heavy supplies of tomatoes, which are breaking the market. During the week, ports on Puget Sound and others up-coast have drawn heavily of all kinds of vegetables, which aided in keeping the market from going to pieces.

Red onions fell to such low prices that they no longer paid expenses. Silver-skin onions are lower. At the lower prices there is a fair up-coast demand for the more matured, good keepers.

Potatoes have ruled firmer under fair receipts and a good shipping and local demand. For shipping, well matured in sacks are given preference. At times consignments of fancy potatoes are auctioned off on the wharf at an advance on outside quotations. The past week two of such consignments were sold by L. Scatena & Co., at $1.40 and $1.60. The potatoes are said to have been grown on loamy, sandy soil. It is claimed that they were better than anything heretofore received.

In the absence of a shipping demand, potatoes were easier but no lower.

Fruit.

The market is oversupplied with small, trashy apricots. They sell at low figures. Pears are also small. Bartlett and Dearborn seedling pears are in the market; they are taken chiefly for shipping. They are thinnings and windfalls. Tragedy and Duane purple plums are in the market; they sell at the outside figures. Black cherries are going out and sell higher, as do Royal Anne. Currants are going out. Blackberries and raspberries are in heavy supply. Sweetwater grapes are coming in more freely. Alexander peaches are going out. Hale's Early will soon be in.

Owing to confirmed advices of a short crop of peaches at the East, particularly in Delaware and Maryland, and a short cherry crop in New York, canners are buying fruit more freely than they expected, but they want the more choice varieties. A fair idea of the prices paid in the interior can be gained by the following, taken from the Yuba City (Sutter county) *Independent:* "The Sutter Canning and Packing Co. has contracted for about 700 tons of fruit for the season's pack, of which there are about 540 tons of peaches, 120 tons of apricots, 25 tons of pears and 15 tons of plums. The fruit is of extra good quality, and the contract price is 2 cents per pound for cling peaches, 1½ cents for free peaches and 1½ cents per pound for pears, apricots and plums. The fruit is from the orchards of S. J. Stabler, R. C. Kells, Mrs. G. F. Starr, B. G. Stabler, Ferd. Hauss, B. F. Walton, J. C. Gray, the Cutts' orchard and Chas. Weeman. Considerable drying will also be done at the cannery this season. The Marysville cannery has contracted for some fruit in this county." On the Sacramento river several orchardists have sold their peaches at 2 to 2½ cents on the river bank. Canners bought in this city the past week as follows: Apricots, 1½@1¾ cts.; blackberries, $3@4 50 per chest; raspberries, $4@5.

Choice good keeping apples were in good demand the past week.

Schacht, Hempke & Co. report the sale of two carloads of new crop dried apricots at 10 cents, for shipment in July to Chicago. New crop dried apricots are quoted in our market at 9½@10½ cents per lb.

Oranges are slow. They have to be rehandled. Limes are in large supply, but there is a good demand.

The market to-day was weak an 1 lower for cherries and peaches, owing to there not being any shipping demand.

Live Stock.

Bullocks are weak and pressing the market, as are range calves. Mutton sheep are scarce and tending up. About all the large bands of sheep have been driven to the summer ranges. Hogs are higher and in good demand. The establishing of a large packing firm near this city will cause hogs in the future to be sought after. Fresh milch cows are said to be more inquired for.

Miscellaneous.

Poultry kept down until toward the close of the week, when a steadier feeling set in. The demoralized market was due to heavy receipts from Texas and Missouri river points. It is said that more is expected to arrive next week. Choice, well-conditioned young chickens are scarce. Well-conditioned turkeys are very scarce. For a coop of extra fine gobblers, 21 cents per lb. was bid yesterday.

The honey crop is short by from 40 to 50 per cent when compared with last year's crop.

Old hops are about gone. For new crop hops buyers name 13 to 15 cents per lb., which growers will not accept. The crop on this coast, compared with the crop in 1891, will be short.

The receipts of wool are lighter. There is a fair inquiry, but buyers appear offish when confronted with any degree of firmness from sellers. The Shire and Cotswold wools are the favorite kinds wanted.

Lima beans are doing better. The stock is nearly concentrated.

From reliable advices up to June 15, the following summary tonnage movement is compiled:

	On the way 1892.	On the way 1891.	In port 1892.	In port 1891.
San Francisco	266,327	319,209	*†154,158	78,490
San Diego	20,307	25,279	4,019	.....
San Pedro	5,705	12,715	....	} 19,767
Oregon	50,303	29 275	21,822	
Puget Sound	29,992	27,859	.....	
Totals	372,634	414,337	189,999	98,151

*Engaged for wheat, 1892, 26,084; 1891, 25,409 †For new crop loading, 1892, 16,849; 1891, 36,696.

The statistics of produce exports from this port from July 1st to June 22d, compiled from the most reliable sources aggregate as follows:

	1891-92.	1890-91.
Wheat, ctls	12,835,424	13,698,398
Flour, bbls	1,053,718	1,174,550
Barley, ctls	1,110,123	312,356

General Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, June 29, 1892.

BEANS AND PEAS.	
Bayo, ctl	2 00 @ 2 15
Butter	2 50 @ 3 05
Pea	2 20 @ 2 70
Red	2 00 @ 2 20
Pink	2 00 @ 2 10
Small White	2 20 @ 2 55
Large White	2 20 @ 2 45
Lima	2 15 @ 2 40
Fld Peas, blk eye	3 00 @ 3 30
Do green	1 50 @ 2 75
Do Niles	1 30 @ 1 40
Split	4 50 @ 5 50
BUTTER.	
Cal. Poor to fair, ⅌ lb	15 @ —
Do good to choice	17 @ —
Do Gilteded	— @ 20
Do Creamery rolls	— @ 20
Do do Giltedge	— @ 21
Eastern	— @ —
CHEESE	
Cal. choice cream	7½@ —
Do fair to good	7 @ —
Do gilt edged	— @ 8½
Do skim	5 @ 6
Young America	— @ 9½
EGGS.	
Cal. "as is," doz.	16 @ 17½
Do candled	18 @ 20
Do choice	21 @ 22
Do fresh laid	23 @ 24
Do do selected	— @ 25
FEED.	
Bran, ton	17 50 @18 50
Feedmeal	26 00 @28 50
Gr'd Barley	21 00 @23 00
Middlings	20 00 @21 50
Oil Cake Meal	— @25 00
Manhattan Food ⅌ cwt.	7 50
HAY.	
Wheat, per ton	11 00 @ —
Do choice	— @14 00
Wheat and Oat	10 00 @12 00
Wild Oats	10 00 @ —
Cultivated do	10 00 @ —
Barley	10 00 @12 00
Alfalfa	8 00 @10 00
New Wheat	10 00 @12 50
Do Wheat & Oat	9 00 @ 11
Do Oat	6 00 @10 00
Do Alfalfa	7 00 @ 9 00
Straw, bale	40 @ 50
GRAIN, ETC.	
Barley, feed, ctl.	87½@ 90
Do Choice	72½@ 95
Do Brewing	1 00 @ —
Do do Choice	1 00 @ —
Do do Giltedge	1 10 @ —
Do Chevalier	1 05 @ 1 40
Do do Giltedge	1 45 @ 1 50
Buckwheat	— @ —
Corn, White	1 32½@ —
Yellow, large	1 27½@ —
Do small	1 32½@ —
Oats, milling	1 50 @ —
Feed, Choice	1 47½@ —
Do good	1 40 @ —
Do fair	1 32½@ —
Surprise	1 55 @ —
Black Cal	— @ —
Do Oregon	1 32½@ —
Gray	1 32½@ —
Rye	1 20 @ —
Wheat, milling.	
Gilt edged	1 47½@ —
Do Choice	1 45 @ —
Do fair to good	1 41½@ —
Shipping, cho'ce	1 40 @ —
Do good	1 38¾@ —
Do fair	1 36½@ —
Common	1 33½@ —
Sonora	1 33½@ 1 40

HOPS.	
1891 Choice to Ex.	25 @ —
Fair to Good	22 @ —
FLOUR.	
Extra, City Mills	4 65 @ 4 75
Do Country Mills	4 50 @ 4 75
Superfine	2 75 @ 3 10
NUTS—JOBBING.	
Walnuts, Cal. ⅌ lb	4 @ —
Do Choice	6 @ —
Do paper shell	7 @ —
Almonds, sft shl.	10 @ —
Paper shell	12 @ —
Hard Shell	6 @ 7½
Brazil	6½@ 8
Pecans small	11 @ 13
Do large	14½@ 16
Peanuts	1½@ 3
Filberts	10½@ 12½
Hickory	7 @ 8
Chestnuts	11½@ 16
ONIONS.	
Silverskin	40 @ 70
POTATOES.	
Early Rose, ctl.	60 @ 75
Do do in boxes	75 @ 1 10
Peerless	65 @ 85
Do in boxes	70 @ 1 00
Garnet Chilies	60 @ 90
Burbank Seedlings	65 @ 90
Do do in boxes	75 @ 1 15
POULTRY.	
Hens, doz	5 50 @ 6 50
Roosters, old	5 50 @ 6 50
Do young	7 50 @10 00
Broilers, small	2 25 @ 3 50
Do large	4 00 @ 5 00
Fryers	5 00 @ 7 00
Ducks	4 00 @ 5 00
Geese, pair	1 25 @ 1 50
Goslings	1 25 @ 1 75
Turkeys, Gobl'r.	17 @ 20
Turkeys, Hens	15 @ 17
Manhattan Egg Food ⅌ cwt	11 50 @ —
PROVISIONS.	
Cal. Bacon, he'vy, ⅌ lb	10½@ —
Medium	11½@ —
Light	13 @ —
Lard	9½ @ 12½
Cal. Sm'k'd Beef	11½@ —
Hams, Cal salt'd	11½@ —
do Eastern	14½@ —
SEEDS.	
Alfalfa	9 @ 12½
Clover, Red	14 @ 15
White	20 @ —
Flaxseed	2 00 @ 2 25
Hemp	3½@ 4
Mustard, yellow	3½@ 4
do Brown	3 @ 3½
WOOL.	
SPRING, 1892.	
Humb't & Men'cino	17 @ 21
Sac'to valley	16 @ —
S Joaquin valley	11 @ 16
Cala's'v & F'th'll.	16 @ 21
Oregon Eastern.	12½@ 19
do valley	18 @ 23
So'n Coast, def.	10 @ 12
Nevada (State).	15 @ 19
HONEY.—1892 CROP.	
White Comb, 2-lb	8 @ 11
do do 1-lb frame	10 @ 13
White extract'd	6½@ 6½
Amber do	5½@ 6
Beeswax, lb	25 @ 28

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, June 29, 1892.

Limes, Mex	4 00 @ 5 00	Pears, Branbon's Seedling	1 00 @ 1 25
Do Cal	— @ —	Do Bartlett	1 00 @ 1 75
Lemons, box	1 50 @ 4 00	Apricots, pr box	35 @ 65
Do Sicily	5 00 @ 6 00	Cherries, box Black	50 @ 65
Oranges, Seedlings	1 25 @ 2 25	Royal Ann	70 @ 85
Do Navels	2 50 @ 4 50		
Oranges frosted and poor sell at a decline of $1@$1 50 per box on the above quotations.		Beets, sk	— @ 1 00
		Carrots, sk	50 @ —
		Okra, dry, lb	15 @ —
Strawberries, per chest—		Parsnips, ctl	— @ 1 25
Longworth	9 00 @11 00	Peppers, dry, lb	10 @ —
Sharpless	5 00 @ 7 00	Do green	10 @ 12½
Gooseberries, lbs	4 00 @ 7 00	Turnips, ctl	50 @ —
Raspberries, ch.	5 00 @ 7 00	Cabbage, 100 lbs	40 @ 50
Currants chest	5 00 @ 7 00	Garlic, lb	2 @ 3
Peaches, box	60 @ 1 00	Squash, Sum, bx	10 @ 40
Cherry Plum, dr	45 @ 65	Tomatoes, box	75 @ 1 00
Bl'kberries ⅌ ch	3 50 @ —	Peas, green, sk.	50 @ 75
Figs, blk box	50 @ 1 25	String Beans	4 @ 6
Do White do	25 @ 1 05	Cucumbers, box	75 @ 1 25
Apples, com. bx	50 @ 1 00	do Bay	1 75 @ 2 25
Do Red Astrachan	1 00 @ 1 50	Mushrooms	10 @ 30
Plums, Tragedy	65 @ 85	Egg Plant, lb	17½@ 20
Do Duane's Purple	70 @ 90	Green Corn, sk.	50 @ 1 25
		Do sweet ⅌ sack	1 00 @ 1 50
		Do swt. Bay ⅌ dz	20 @ 25

Live Stock.

BEEF.	
Stall fed	5 @ —
Grass fed, extra	5 @ —
First quality	4½@ —
Second quality	4 @ —
Third quality	3½@ —
Bulls and thin Cows	2 @ —
VEAL.	
Range, heavy	4 @ —
Do light	5 @ —
Dairy	6 @ —

MUTTON.	
Wethers	7 @—
Ewes	6½@—
Do Spring	8 @—
HOGS.	
Light, ⅌ lb, cents	5½@ —
Heavy	5 @ —
Soft	4½@ —
Feeders	3½@ —
Stock Hogs	3½@ —

Grain and Wool Bags.

Calcutta, spot	7 @ 7⅞
Wool Bags	36@ 38

Housewives, Attention!

Two *new* first-class Sewing Machines for sale cheap, will be sent direct from warerooms, if desired. Address H. F. D., Box 2517, San Francisco, Cal.

PATRONS OF HUSBANDRY.

The Secretary's Column.

By A. T. DEWEY, Secretary State Grange of California.

THE STATE GRANGE SESSION.—Patrons are all looking forward to the coming annual session at San Jose. In this issue we give a list of standing committees appointed by Worthy Master Davis, who are to take active part in the deliberations of the session. I would suggest that each member of these committees review the past work in their branch of duties and be well prepared to assist in the work of the session. To consider and report on matters referred to them is not all the work which members may well be expected to perform, but, in a manner, they should have an interest in seeing that any needed proposition should be duly submitted to the Grange. Should any members of the committees appointed be aware of any reason why they cannot attend the session, or for other reasons cannot act in performing their duties, early notice should be given to the Master, with any suggestions they deem advisable to him. The appointment of committees is a perplexing duty for any presiding officer. The Master has tried to divide the work among the several sections of the State, geographically, and also to name members who will give time and thought to the work required of them, thus acting, I believe, conscientiously in accordance with his best judgment.

NOTES FROM THE MASTER.

Brother Davis, W. M., writes, June 24th, that he is well taxed with demands on him for the Grange and individual work, correspondence, etc. He expects to visit Grimes Grange, July 7th, and assist in conferring the third and fourth degrees on a class of ten, speaking to an open meeting in the afternoon. There should be an old-fashioned turnout of Grangers, and it is pleasant to say that the citizens who attend will be rewarded with an eloquent and thoughtful address.

GOOD results of the State canvass are already apparent, and a larger increase anticipated from now on until the State Grange meeting; and no doubt after the fruit and grain harvests there will be many new applications for membership. The fall campaign may require some more visitations, but the Master hardly looks for any large demand for speakers.

FOR CONGRESS.

There is a strong probability that E. W. Davis, W. M. of S. G., will be nominated and elected to Congress from the First District. The only difficulty in the way, according to the most reliable newspaper authority, is to obtain the Master's consent. It is certainly desirable that there should be lots more of as good representatives in Congress as we already know that Brother Davis would make.

TULARE is among the Granges that have endorsed the San Jose Grange resolution in favor of equal legal rights for women on the death of husbands to those of husbands on the death of their wives.

THE Grange of Oregon may expect a prosperous year. Master R. P. Boise announces that he will have more time than formerly to devote to the cause he has always so ably and faithfully espoused, while Past Master Hayes, who has been elected State Lecturer again, intends to take the field actively. Both should meet large audiences wherever announced to speak, and their superior efforts will, no doubt, lend much inspiration to many other earnest and active Patrons.

WE SHOULD HELP EACH OTHER.

One of our best Past Masters, who has been formerly a schoolteacher, and who has lately been farming in the interior, desires a situation in San Francisco at some reasonably paying business; perhaps would take a farm or business elsewhere, if he can obtain suitable opportunity for himself or self and wife. We make this mention unsolicited, desiring to assist a very worthy and capable brother, we believe, whose address will be furnished on application.

QUARTERLY REPORTS RECEIVED.

Reports to June 30.—Tulare Grange, Eureka, Roseville, Pescadero, Merced, American River, Lockeford, Stockton and Glen Ellen.

TWO ROCK GRANGE.—We are informed by Past Master J. C. Purvine that four new applications were received at the last meeting.

EUREKA GRANGE, near Auburn, is progressing favorably. The summer months should be particularly delightful ones to the mountain Grangers.

EQUAL RIGHTS, ETC.

By resolution of Sacramento Grange, Bro. E. Greer presented the following at the last session of the State Grange, which was in substance adopted:

WHEREAS, The Civil Codes of the State of California discriminate between husband and wife, relating to the disposition of community property, and should be so amended as to give the wife the same rights as are now enjoyed by the husband; therefore be it

Resolved, That the California State Grange, P. of H., instruct its Legislative Committee and representatives to give this matter their favorable attention, and to urge, by all honorable means, such amendments to the Civil Codes as will give the wife the same rights in the disposition of community property as are now enjoyed by the husband.

State Grange Committees for 1892.

Standing Committees.

ON LITERARY EXERCISES.—Sisters Amos Adams, S. P. Sanders of San Jose, S. H. Dewey of Temescal, A. P. Roache of Watsonville, C. D. Bonner of Santa Rosa and W. W. Greer of Sacramento, and Brothers Cyrus Jones and H. P. Brainerd of San Jose, John Denman of Two Rock, D. Fisher of North Butte, E. C. Bedell of Roseville, H. C. Stucke of Waterloo and E. W. Williams of Pacheco.

ON DIVISION OF LABOR.—I. C. Steele, J. W. Montgomery, J. W. De Golia, N. E. Alling, Sisters M. E. Donaldson and Ella E. Ashley.

ON CREDENTIALS.—E. B. Owens, J. W. Robinson, C. H. Wakefield, Sisters Roxie Dennis and S. C. Dunlap.

ON FINANCE.—D. Flint, E. T. Pettit, J. R. Denman, and Sisters S. T. Coulter and W. L. Overhiser.

ON GOOD OF THE ORDER.—S. T. Coulter, S. H. Jackman, W. A. Bowman, and Sisters Wm. Johnston and C. A. Merrill.

ON COOPERATION.—Brothers Wm. Johnston, Joseph Kline, P. L. Bunce, and Sisters S. T. Coulter and S. P. Sanders.

ON CONSTITUTION AND BY-LAWS.—Brothers W. L. Overhiser, C. D. Bonner, L. H. Applegate, Sisters Fannie H. Lawton and Daniel Flint.

ON FARMERS' INSTITUTE.—Brothers J. V. Webster, C. D. Bilderbeck James S. Perrott, Sisters J. M. Talbot and Thos. McConnell.

ON TRADE-CARD SYSTEM.—A. P. Martin, W. T. Lain, J. M. Talbot, and the Executive Committee, viz: Thos. McConnell, Geo. P. Loucks and B. F. Walton.

ON WOMAN'S WORK IN THE GRANGE.—Sisters Hattie S. Jones of Yuba City Grange, Mary Merrill of Waterloo Grange, Amos Adams of San Jose Grange, S. J. Cross of Roseville Grange, S. H. Dewey of Temescal Grange, M. Brainard of San Jose Grange, N. A. Alling of Stockton Grange, E. Z. Roache of Watsonville Grange, C. E. Kinney of Temescal Grange, E. Greer of Sacramento Grange, and Mary E. Saxton of Santa Rosa Grange.

ON COOPERATION FOR LEGISLATION.—J. V. Webster, Chas. Wood, C. W. Norton.

Auction Sales of California Fruits.

At New York.

June 22.—Two carloads: Apricots, $1 65@4 10; Peaches, $1 70@2; Clyman plums, $2 70@3 05; Brill plums, $1 90. Car sold gross for $2144.

June 23.—One carload: Royal apricots, $1 50@1 70; Alexander peaches, $1 05@2; Clyman plums, $2 65@3 25; Brill plums, $1 55. Car sold gross for $1988. Ventilated car No. 36,815: Apricots, $1 20@1 70 for Royals; Montagamet apricots, $3 85; Alexander peaches, $1 60@1 80; Clyman plums, $2 15@2 55; Koenig Claude plums, $1 55; Tragedy prunes, $5 50. Car sold gross for $1681

June 24.—One carload from Newcastle: Royal Anne cherries, $1 90@2 35; Black Oregons, $2 15@2 70; Alexander peaches, $1 60@2 25; Royal apricots, $1 @3 60; Cherry plums, $1 30@1 40. Car sold gross for $2760. Goodell Refrigerator Car No. 16,358, shipped from Tulare: Royal apricots, $1 10@1 25; Alexander peaches, $1 70@1 85.

June 24.—One carload: Royal apricots, $1 20@1 75, averaging $1 48 ℔ crate; Seedling apricots, $1 30 ℔ crate; Alexander peaches, $1 40@1 75 averaging $1 51 ℔ box; Early May peaches, $1 60@1 75 ℔ box.

June 25.—Two carloads: Royal Anne cherries, $1 45@2 20; Republican cherries, $2 15@2 20; Royal apricots, $1 05@4 15; Alexander peaches, $1 05@2 15; Royal Native plums, $2 05@3 10; Clyman plums, $2 80@3 15; Koenig Claude plums, $2 10; Tragedy prunes, $5 25. Gross sale of both cars, $3926.

June 27.—One carload: Royal Anne cherries $1 25@2 55; Black Tartarian cherries, $1 25@2 05; Eagle cherries, $1 10@1 45; Republican cherries $1 40: gross sale of this car, $3133. Also sold Goodell No. 16,158—Apricots, 95c@$2 65; Alexander peaches, $1 25@1 75; average, $1 54; Cherry plums $2 10. Goodell Refrigerator Car No. 16,318—Apricots, small and overripe, sold at $1 05@1 10; Alexander peaches, $1 2[illegible]@1 30.

June 27.—One carload: Alexander peaches, $1 35@1 85; some small, $1 10@1 20; Royal apricots, $1 40@1 55; some small, $1 15; Garland peaches, $1 30; Centennial peaches, $2 50; small, $1 60; Peach apricots, $2 50; Clyman plums $2 90; Cherry plums, small, $1 05; Black Republican cherries, $1 60; Royal Anne cherries, $1 80@2 40.

June 28.—Two carloads: Apricots, $1@3 20; Peaches $1 20@1 85; Royal Native plums, $3; Jackson, $3 15; Royal Anne cherries, $1 50@1 85; Oregon, $1 50@3 20; Black Tartarians, $1 70; Black Eagles, $1 35.

June 27.—Two carloads; Cherry plums, $1 25; Alexander peaches, $1 25; Japan Blood peaches, $1 40; Briggs May peaches, $1 25. Some peaches, overripe sold for less prices. Royal apricots, mostly over-ripe and small, 75@80c

June 27.—Three carloads: Alexander peaches, $1 05@1 65; Apricots, 30@$1 40; Royal Anne cherries, $1 65@1 75; Black Tartarians, $1 10; Republican cherries, $1 65; Eagle cherries, $1 25 Clyman plums, $1 65; Koenig Claude plums, $1 95@2 25; Cherry plums $1 65@1 80. 10-℔ boxes, $1; Tragedy prunes, $5.

June 28.—Four carloads: Apricots, $1@1 50; Montagamets, $1 55; Peaches, $1 10@1 65; Cherries, poor order, $1 60@1 75; Cherry plums, $1 90; Royal Native, $2 10@2 50.

At Chicago.

June 22.—Three carloads: Peaches sold for $1 15@1 55; Royal apricots, 85c@$1 30; Montagamet apricots, $1 65; Clyman plums, $2 25; Cherry plums, $2 05.

June 23.—Three carloads: Royal Anne cherries, $1 60; Republican cherries, $1 50; Clyman plums, $2 05@2 15; Royal apricots, 90c@$1 25; Peaches, $1 15@1 60; Royal Native plums, $1 25@2 10; Pears, $1 65; Tragedy prunes, $5.

June 24.—Two carloads: Royal apricots, $1 30@1 80 ℔ crate; Newcastle apricots, $2 ℔ crate; Alexander peaches, $1 25@1 50 ℔ box; Royal Native plums, $1 50 ℔ crate; Cherry plums, $1 35 ℔ crate; Royal Anne cherries, $1 85@2 05 ℔ crate. Black Tartarian $1 50@1 75; Black Bigerreau, $1 55; Black Republican, $1 35@1 55. Some fruit arrived in poor condition and sold for less.

June 24—Two carloads: Peaches $1 20@1 25; Apricots, 70c@$1 15; Koenig Claude plums, $2; Montagamet apricots, 75c@$1 35; Peach apricots, $1@1 30. Weather very bad, raining hard.

June 25.—One carload: Royal apricots, $1 10@1 20; some small, 90c@95c; Peach apricots $1 15; Smith's Triumph $1 35; Alexander peaches, $1 25@1 45; Early May, $1 25@1 30; St. Catherine plums, $2 30; Royal Native, $1 80; Peach plums, $1 90.

June 25:—Two carloads: Royal Apricots sold at 70c@$1 40; Moorpark apricots $1 40; Montagamet apricots, $1 50; Peaches, $1 25@1 50; Clyman plums, $2 20@2 30; Royal Native plums, $2 10; Brill plums, $1 85; Tragedy prunes, $4@4 25.

At Other Cities.

MINNEAPOLIS (Minn.). June 22.—Two carloads: Apricots sold for $1.25@1.40 per half crate; peaches, $1.25@1.50 per box; cherries, $1.40@1.85 per box.

OMAHA (Neb.), June 23.—One carload: Peaches, $1.25@1.50; apricots, $1.25@1.50; Royal Anne Cherries, $1.75@2

BOSTON, June 24.—One carload: Alexander Peaches sold to average $2.08; Royal Apricots, $2.23; Royal Anne Cherries, $2.49; Clyman Plums, $3.50. Car sold gross for $2767.

BOSTON, June 27:—One carload: Early May peaches, $2 10; Alexander, $2; Moorpark apricots, $1 60; Royal, $1 59.

OMAHA (Neb.) June 27. One carload: Peaches and apricots $1 25@1 50.

SPECIAL.

GRAIN BAGS, 7c.

Standard Calcutta. Cartage added, 50c ton.

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Standard Painted, 3¾. GALV, 4¼.

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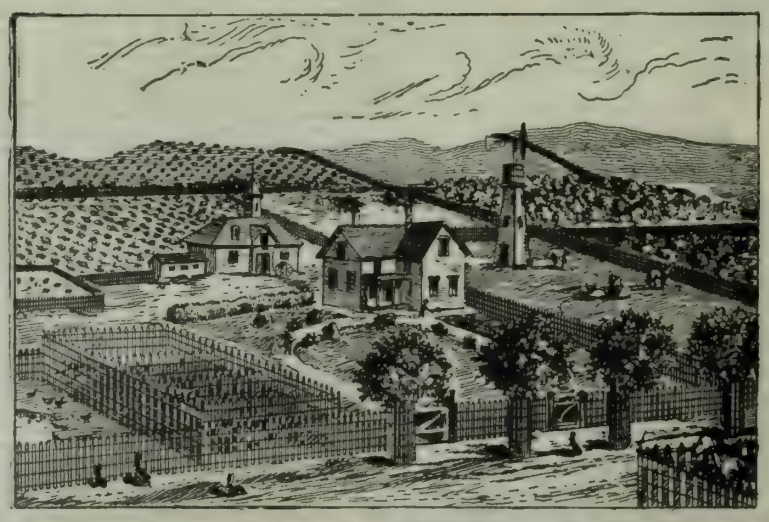

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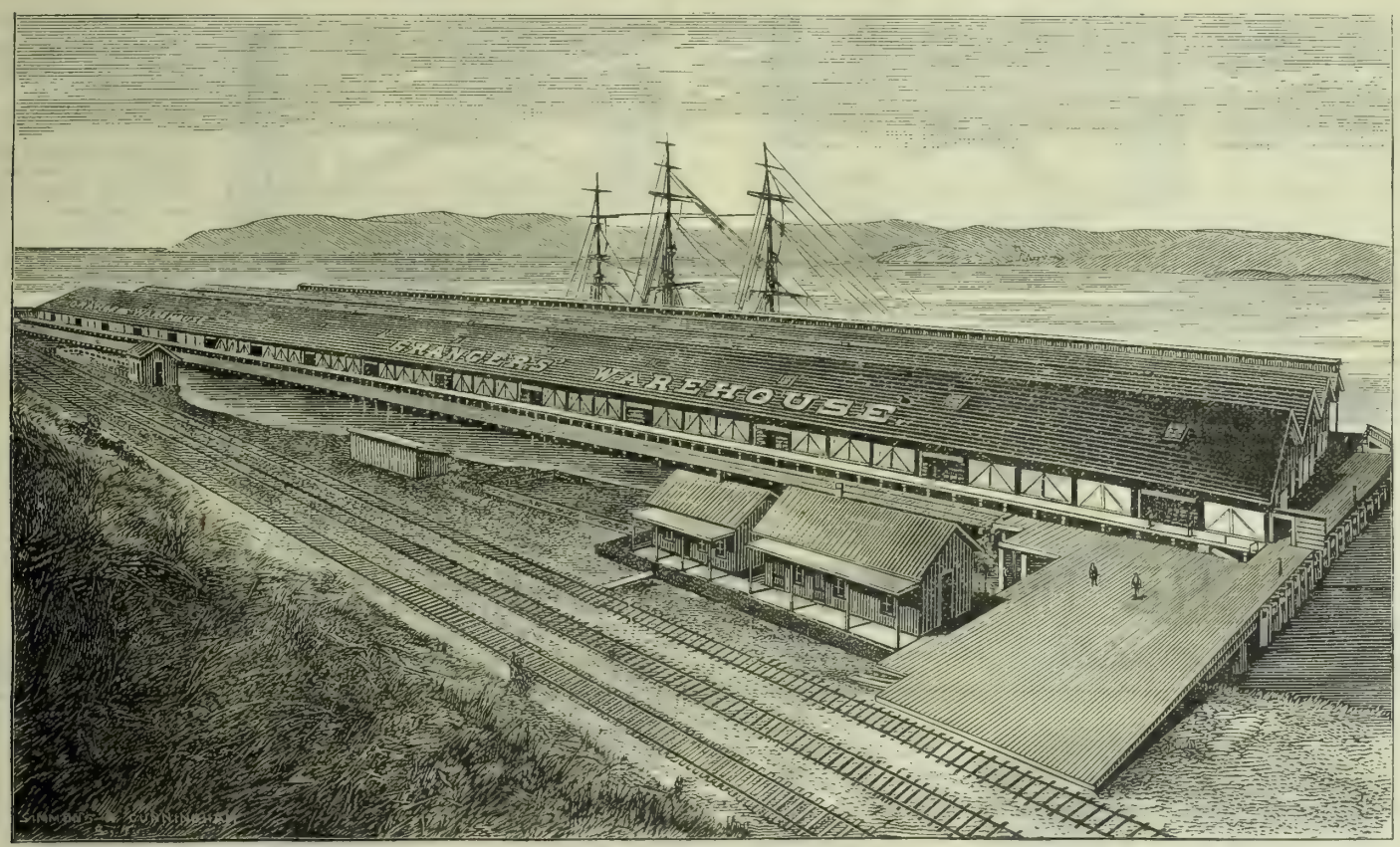

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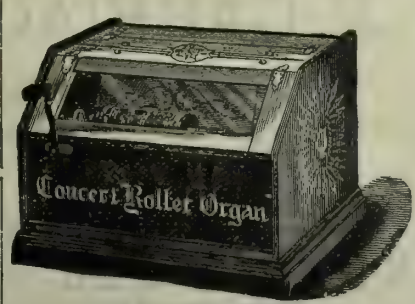

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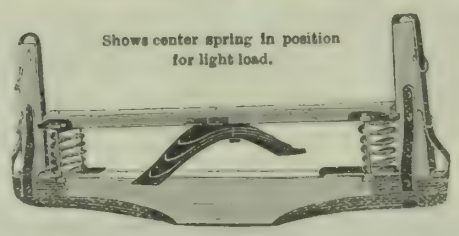
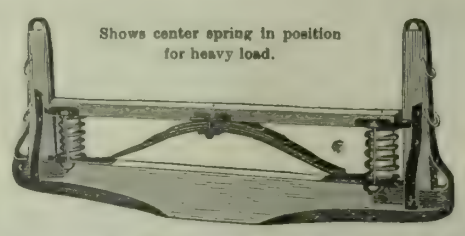
25,000 sets in use. Their success established throughout the United States. This celebrated Wagon Spring is, without doubt, the only reliable bolster spring manufactured; and is the only portable bolster spring that will transform a common farm wagon into an easy, platform spring, to ride easy, with or without a load. Examine the cuts, and note the principle of its construction.





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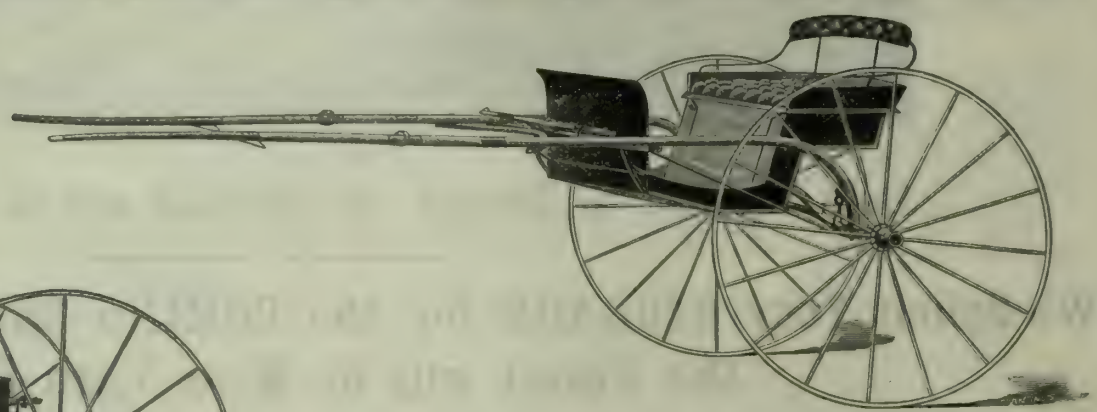

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PACIFIC RURAL PRESS

Vol. XLIV. No. 2. SAN FRANCISCO, SATURDAY, JULY 9, 1892. THE DEWEY PUBLISHING CO., Office, 220 Market St.

A Single Point But a Strong One.

Last week we indulged in a few remarks upon what producers could do by individual diligence and effort. In view of the important results now being attained among the Fresno raisin producers, as reported upon a following page, thought naturally returns to the benefits of united action. It will be seen by the report to which we refer that something like four-fifths of the larger producers had agreed with each other upon a certain line of action in disposition of their product, and that the work of securing fuller accord was progressing favorably. We doubt whether such a large proportion of the producers of a given territory has been before committed to a given measure. It may possibly have been done in some of the orange regions of the southern counties, but not elsewhere. Next week a meeting will be held which will show the outcome of the business—or at least the beginning of it.

In connection with the work as thus far carried, the question naturally arises why has this movement made such progress while other efforts have died in committee or are languishing just beyond? It may be claimed that the situation among the raisin men, judged by last year's experience, was a desperate one, and has forced producers to do something. This is, however, hardly truer of the raisin men than of other dried fruit producers. Why, then, do they combine more readily? It seems to us the reason is because they have made the bond of their union a single strand: Everyone can recognize it and understand and perceive its plain necessity. There is a point below which raisin-making does not yield a living. Producers agree with each other that in selling their product they will not pass that point. This secures a profitable price for raisin and it leaves the producer full liberty in every other way.

What shall the minimum price be? That is a difficult point to decide and the Fresno people are approaching its determination very wisely. They leave it for final adjustment. They seek every light upon it. They request the opinions of packers upon it. They appeal to public sentiment to approve their course. It is a very simple procedure and it seems to us a very strong one. We shall be glad to to see it win, and we expect to do so.

Is it possible that in other movements for cooperation for disposition of fruit and fruit products, too much is being attempted? The chief objections seem to be doubt of the wisdom of such a governing board as is usually contemplated and dislike to delegate away individual rights and judgment. For these reasons growers risk only the cost of a single share of stock, when they should have scores or hundreds, and they give no surety that they will do a dollar's business through the channels they themselves create. Thus far these movements have proved weak, except in small regions were mutual acquaintance seems to have fostered cooperative action. We believe existing difficulties, even in the more pretentious organizations can be overcome. They may be swept away by the confidence which may proceed from successful action in support of a single point. If the Fresno growers proceed to successful issue with their measure to establish a minimum price this year they will certainly not do less next year and they may do more. From all we can discern of the signs at Fresno, the situation must certainly be looked upon as promising, not for that region alone, but for the State.

Portland Residences.

The handsome residences of which we have photo-engravings upon this page are situated in Portland, Oregon. Some of them belong to people of wide reputation, but our purpose is merely to reflect the character of the dwellings of prosperous Pacific Coasters and not to remark their personality. The photographs were taken in midwinter, which is unfortunate in losing foliage effects and yet perhaps desirable to distant readers in wintry climates in that they show the scenes at their very worst.

Dwellings in general aspect and dimensions like those at Portland are to be found in or near all our larger Pacific coast cities, and they represent sometimes the surplus products of successful local industrial or professional effort, sometimes the results of Eastern enterprise or inheritance expended to secure the possessor a handsome home in a genial clime.

VILLA RESIDENCES IN PORTLAND, OREGON.

The Los Angeles *Times* learns that the women principals of the Los Angeles schools are to be dropped and their places filled by men. "The ostensible object of this movement is, of course, to improve the efficiency of the force, but there is something more than a suspicion out that it is in the interest of practical politics." To this the *Times* enters a timely protest. Politics does quite enough mischief as matters now stand, and the public school system ought to be free from it.

PACIFIC RURAL PRESS.

BY THE DEWEY PUBLISHING CO.

Office, 220 *Market St.; Elevator*, 12 *Front St., San Francisco., Cal.*

ANNUAL SUBSCRIPTION RATE THREE DOLLARS a year. While this notice appears, all subscribers paying $3 in advance will receive 15 months' (one year and 13 weeks) credit. For $2 in advance, 10 months. For $1 in advance, five months. Trial subscriptions for three months, paid in advance, each 60 cents.

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Per Line (agate)	$ .25	$ .50	$ 1.20	$ 4.00
Half inch (1 square	1.00	2.50	6.50	22.00
One inch	1.50	5.00	13.00	42.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type, or in particular parts the paper, at special rates. Four insertions are rated in a month.

Our latest forms go to press Wednesday evening.

Registered at S. F. Post Office as second-class mail matter.

ANY subscriber sending an inquiry on any subject to the RURAL PRESS, with a postage stamp, will receive a reply, either through the columns of the paper or by personal letter. The answer will be given as promptly as practicable.

ALFRED HOLMAN.....General Manager

SATURDAY, JULY 9, 1892.

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BUSINESS ANNOUNCEMENTS.

[NEW THIS ISSUE.]

Windmills—R. F. Wilson, Stockton, Cal.
Barley Crusher—M. L. Merv, Chico, Cal.
Orange Seed—L. G. Sresovich.
Monte Vista Resort—Mrs. C. E. Kinney, Dutch Flat, Cal.

☞ *See Advertising Columns.*

The Week.

California fruit is going eastward steadily and in large quantities. The city bids fair to assume its indignant attitude of last year over the claim that Eastern people are getting the good fruit and San Franciscans the "culls." To the grower, however, there is but a single thought, and that is that the best fruit must go to the best market, and thus it will continue. Manager Buck of the Fruit Union has just returned from his Eastern investigations, and has a very encouraging report to make of Eastern trade and the season's prospects. He fears no conflict with the Eastern product, except a brief tussle with the Georgia fruit.

Just as we go to press, reports come of a serious conflict between the detectives hired by Pennsylvania iron masters and the locked-out operatives. Numbers of lives were lost in a battle on Wednesday, and the matter has a serious look which it is to be hoped will soon be averted.

Preventing Levee Breaks.

Mr. Daniel Flint recently gave us some hints how to prevent gopher hole breaks in levees and other embankments, that may be of practical use to some farmers not so wise as Sacramentans are supposed to be on the subject.

Often the difficulty of locating the water side end of a gopher hole has caused great destruction. The common expedient when water pours through a gopher hole in the levee is to tramp along the inner slope until roily water passing out below indicates the position of the opening, when the flow can be easily stopped at its head, if found in time.

Sometimes this system of tramping fails to succeed, and nonplusses the investigator. In an emergency of this kind, Brother Flint, when called upon to act, went in for heroic treatment. Being an "instantaneous case" of "root, hog, or die," he had a longitudinal cut dug in the embankment, found the opening, and plugged it with bags of sand, the usual way. After a short cessation, the stream again poured through the levee. The cut was again opened and sunk a little deeper, and the bags inserted partly below the gopher's tunnel, and the job was as successful as Pharaoh's march through the Red sea.

TOO MUCH STING. — Cannot we have our official entomology without so much wasp in it? The acidity and acridity among old school entomologists over questions of classifications and priority, become mild when compared with the recent sharpness among economic entomologists, and, strange to say, the ill feeling seems to be keenest over beneficial bugs, which certainly should provoke the blandest and sweetest sentiments among their devotees. And yet we find quarrels over discovery, introduction and subsequent handling and distribution, which ill become those who are diligent in pursuing beneficent missions. The work is a great one; there are achievements and honors enough for all. To quarrel and indulge in personal abuse will convince the public that the whole business is hateful and waspish, and will defeat ends which are only attainable through public interest and support. Let us have peace!

Pacific Coast Sugar Beets.

The Department of Agriculture at Washington, has just issued a special publication on the sugar beet entitled "Experiments With Sugar Beets in 1891," by Dr. H. W. Wiley, chemist, etc. It contains analytical results gained in the Washington laboratory by assaying beets grown from seed sent out by the Department, and transmitted to Washington by the growers in different parts of the country. The publication affords the widest data attainable on sugar beets grown in all parts of the United States, and is therefore an important contribution to industrial knowledge. Unfortunately, however, the data are not in all respects fairly representative, and in fact may in some cases create very wrong impressions. This is unquestionably so with reference to California, and as our State is the largest producer of beet sugar in the Union, this is peculiarly unfortunate. The distant reader will be wholly unable to reconcile the conflict between the showing of California beets made in this report and the fact that we are successfully conducting sugar factories. Such a distant and ill-informed person will conclude that we are fools to think we can successfully make sugar from such beets as the government says we grow here, and he will henceforth have nothing to do with us in that line.

We have tabulated the leading results obtained by the government analyses of beets received from Pacific Coast States as follows:

	Ariz.	Cal.	Nev.	Or.	Wash.
Samples	2	8	18	35	11
Average weight oz.	51	48	11	23	18
Sucrose in juice, %	8.09	11.64	18.10	14.67	15.23
Purity, %	56.09	75.8	88	82.2	83.9

It is upon such data that the government report makes the following deductions under the head of each State named in the table.

Only two samples were received from Arizona. They were both very much overgrown, being about three times as large as the normal beet should be. As would be expected, the percentage of sugar was very low.

Eight samples were received from California. The average size of the beets was entirely too large, being 48 ounces.

Of the Nevada beets, the numbers representing their quality are almost phenomenal with the exception of the average weight which is only about what it should be. This doubtless accounts for the fact that the beets were so exceptionally rich.

The samples from Oregon are, the report says, "uniformly rich in quality, and if they truly represent the capabilities of the State there certainly is a bright future for the beet sugar industry in that portion of the Pacific coast.

With the exception of two, all the samples received from Washington were of high saccharine strength.

These reports while they undoubtedly do justice to Nevada, Oregon and Washington, succeed in putting California and Arizona in a very untrue and unfavorable light. The samples were clearly not fit for sugar-making and should have been thrown out, because it was clearly the fault of the grower and not of the State. The grower erred in choosing wrong soil or wrong cultivation and his failure to produce a good beet is made to cast a shadow upon the State.

It may be said that Californians are to blame for the result. They did not send proper and sufficient samples as other States did, consequently the report is unfavorable. This might be the case were not Dr. Wiley so well informed upon what California can do and is doing in this line of production. His earlier reports show what California beets are, because he has given many analyses of them as secured from the analysts at Alvarado. If he had desired a hundred or a thousand other analyses he could have had them from the State University, or from Alvarado or Watsonville or Chino. He could also have shown exactly what has been done in actual sugar-factory practice in this State. For this reason we protest against the showing the State is given in this publication. It is a case where, in default of specimens, Dr. Wiley should have gone behind the returns and have fairly put forth the beet-sugar achievements of California in the light of his own knowledge and observation. The ill effects of the present publication is unfortunately likely to be wide-reaching and difficult to overcome.

It is true that Dr. Wiley says in his introductory note that the "results must be simply regarded as tentative, showing in general where beets of fine quality can be produced, but not in any way deciding on the comparative ability of the several States for the production of rich beets." This is a fair and frank admission, but the fact remains that this allusion will be seen by few and the general unfavorable reflection upon California beets will reach many. This should not have been made possible.

Statistical Review of Wheat and Barley.

The harvest season ending with June 30, 1892, will no doubt be often referred to by commercial writers owing to the large direct shipments of wheat from this port to France and Belgium. This movement assumed large proportions toward the close of the season of 1890–91, or as soon as reports of short crops on the continent were verified, and continued well into the first five months of the 1891–92 season. The exports to France within the twelve months ending June 30, 1891, aggregated 5,214,530 centals, and to Belgium 848,898 centals, the larger proportion of which, as above stated, was made in the last six months of the 1890–91 season.

The wheat shipments during the twelve months ending with June 30, 1892, aggregated to the several different countries as follows: Great Britain, 8,342,288 centals; France, 3,852,233; Belgium, 676,771; Peru, 33,824; Central America, 21,990; Australia, 8,393; Hawaiian Islands, 8,390; various, 2,067. Total, 12,945,956 centals, against 13,836,467 centals in the season of 1890–91. The highest, lowest and average prices of No. 1 white shipping wheat in the open market by months from July 1, 1891, to June 30, 1892, were as follows:

Months.	Highest.	Lowest.	Average.
July	$1 58¼	$1 43½	$1 48[illegible]
August	1 72½	1 55¼	1 62⅞
September	1 71¼	1 60	1 64
October	1 71¼	1 66¼	1 68[illegible]
November	1 90	1 67½	1 82½
December	1 85	1 73¾	1 80½
January	1 82½	1 65	1 74
February	1 72⅝	1 52½	1 63⅞
March	1 70	1 52⅛	1 63⅝
April	1 55	1 45½	1 50
May	1 51¼	1 40	1 47½
June	1 40	1 38¾	1 39½

The highest price for the season was $1.90, the lowest was $1.38¾, and the average was $1.63⅝. The average was the highest since the season of 1883–84, when it was $1.64⅞. From the latter season to the season just closed the averages were as follows: 1884–85, $1.31⅞; 1885–86, $1.43½; 1886–87, $1.52½; 1887–88, $1.40½; 1888–89, $1.34½; 1889–90, $1.28⅜; 1890–91, $1.46½. The causes which brought about the high prices the first six months of the past season were given at considerable length in the RURAL PRESS of February 6, this year, and it is to be presumed they are fresh in the memory of readers.

The exports of flour from San Francisco for six seasons past, were as follows in barrels: 1891–92, 1,083,577; 1890–91, 1,185,410; 1889–90, 1,189,629; 1888–89, 909,032; 1887–88, 854,735; 1886–87, 1,001,579.

The combined wheat and flour (flour reduced to wheat) exports from this port, aggregate by seasons as follows in centals: 1891–92, 16,196,687; 1890–91, 17,892,697; 1889–90, 17,271,078; 1888–89, 16,112,191; 1787–88, 11,324,398; 1886–87; 15,339,629.

Of the exports of barley from San Francisco the past season, Great Britain took direct as follows: For Cork, 247,629 centals; Gloucester, 46,840; Hull, 54,439; Liverpool, 232,148; London, 7,375. Total 588,431 centals out of total shipment of 1,037,982 centals. The exports to other countries and foreign ports were as follows: Antofogasta, 22,400 centals; Callao, 10,516; Hawaiian Islands, 66,623; Iquiqui, 70,151; Los Palmas, 69,500; St. Vincent, 82,152; Sydney, 2508; Tahiti, 3356; various 2804 centals. To New York there was shipped by sea 144,270 centals. No shipments were made eastward in last season by rail.

The highest, lowest and average prices by months in the season of 1891–92, were as follows for No. 1 feed barley, based on actual transactions:

Months.	Highest.	Lowest.	Average.
July	$1 20	$1 00	$1 13[illegible]
August	1 18¾	1 05	1 10¾
September	1 10	1 05	1 07
October	1 08¾	1 02½	1 06[illegible]
November	1 15	1 02½	1 10
December	1 15	1 05	1 10[illegible]
January	1 12½	1 02½	1 11¼
February	1 05	95	99½
March	1 05	97½	1 00
April	1 10	1 00	1 02
May	1 05	95	99⅝
June	98¾	92	92⅞

Average for the year $1.05½; highest for the year, $1.20; lowest for the year, 92 cents. The average price of No. 1 feed barley by seasons, was as follows: 1891–92, $1.05½ 1890–91, $1 39⅞; 1889–90, 81½ cents; 1888–89, 75⅞ cents 1887–88, 79½ cents; 1886–87, $1½; 1885–86, 1.28.

Los Angeles *Express*: "Some energetic steps should be taken to secure to California a fair share of the business of shipping deciduous fruit to Eastern markets. While the production of deciduous fruit is large in this part of the State, the crop is disposed of almost entirely in the dried or canned form. Northern and Central California are allowed to capture nearly all of the great shipping trade in this class of fruits. There is no sufficient reason for Southern California's lagging behind in this respect."

Stockton *Mail:* "The chief point of attack as respects matters connected with Yosemite valley should be the excessive tolls charged for the privilege of entering the great fissure. The valley is a national reservation, under the management of the State of California, and it is just as wrong to charge any tolls at all as it would be to exact an admission fee from visitors to the State Capitol grounds or to Golden Gate Park. There is a burning need of reform here."

From an Independent Standpoint.

The chief political event of the week was the birth of the National People's Party which was accomplished according to programme at Omaha on Independence Day. The leaders felt that there might be some advantage in the coincidence, and so managed their meeting that the platform was adopted and the candidates named on the Fourth. The sentiment was a good one, but it must be said that in political warfare sentiment of this sort is of small practical account. The temper of the Convention was radical from first to last, and the platform and the candidates alike stand for the extreme tenets of reform. The declaration which precedes the resolutions shows the spirit of the delegates. "We meet," it says, "in the midst of a nation brought to the verge of moral, political and material ruin; corruption dominates the ballot-box, the legislature, Congress, and even touches the ermine of the bench. The people are demoralized. Most of the States have been compelled to isolate voters at the polling places to prevent universal intimidation or bribery. The newspapers are subsidized or muzzled. Public opinion is silenced; business is prostrated; our homes covered with mortgages; labor impoverished; land concentrated in the hands of capitalists. Urban workmen are denied the right of organization for self-protection when imported, pauperized labor beats down their wages. A hireling standing army, unrecognized by law, is established to shoot them down, and they are rapidly degenerating into the European condition. The fruits of the toil of millions are boldly stolen to build up colossal fortunes unprecedented in history, and make the possessors of them in turn a menace to the republic and to liberty."

Of course a body of men coming together in this temper could not be expected to be politic, much less diplomatic, and it is not surprising that the formal platform following such a preamble should give voice to a good deal that is false and mistaken with much that is good and true. The platform proper is as follows:

"We demand a national currency, safe sound and flexible, issued by the General Government, full legal tender for all debts, public and private, and that without the use of banking corporations, a just, equitable and efficient means of distribution to the people at a tax not to exceed two per cent per annum, to be provided as set forth in the Sub-Treasury plan of the Farmers' Alliance, or a better system; also by payments in the discharge of its obligation for public improvements.

"A—We demand free and unlimited coinage of silver and gold at their present legal ratio of sixteen to one.

"B—We demand that the amount of circulating medium be speedily increased to not less than $50 per capita.

"C—We demand a graduated income tax.

"D—We believe the money of the country should be kept as much as possible in the hands of the people, and hence we demand that all State and national revenues shall be limited to the necessary expenses of the government, economically and honestly administered.

"E—We demand that the postal savings banks be established by the government for the safe deposit of the earnings of the people and to facilitate exchange.

"Transportation being a means of exchange and a public necessity, the government should own and operate railroads in the interest of the people.

"The telegraph and telephone, like the postoffice system, being a necessity for the transmission of news, should be owned and operated by the government in the interest of the people.

"Land, including all the natural sources of wealth is the heritage of the people, and should not be monopolized for speculative purposes, and alien ownership of land should be prohibited. All lands now held by railroads and other corporations in excess of their actual needs and all lands now owned by aliens should be reclaimed by the Government and held for actual settlers only.

In addition to the platform there are a host of miscellaneous resolutions submitted, not as part of the platform, but as expressive of the sentiments of the convention. There is a demand for a free ballot and a free count without Federal interference, and "through the adoption by States of the unperverted Australian or secret ballot system." The revenue derived from a graduated income tax it declares should be applied to the reduction of the burden of taxation now levied upon the domestic industries of the country. Fair and liberal pensions are pledged to ex-Union soldiers and sailors. The protective system as it is related to American labor is declared fallacious and ineffective. The Pinkerton system is strongly condemned. The eight-hour system of labor is recommended as a matter of justice to the workingman. There is a resolve favoring the constitutional provision limiting the office of President and Vice-President to one term, and providing for the election of Senators of the United States by the direct vote of the people; and another against the giving of any subsidy or national aid to any private corporation for any purpose.

When the Convention came together, the almost unanimous wish of its members centered upon Judge Gresham of Indiana as the Presidential candidate. For ten days or more, the leaders had been in constant communication with him, and although he had declined in positive terms to accept the nomination, there were still those who thought that he might be induced to do so at the last moment. Mr. Weaver was among those who heartily favored Gresham's nomination, and who were willing to shape the platform in accordance with his wishes. It was not until after the Convention was actually in session that a final and positive refusal came from Gresham, and with the possibility of his nomination out of the way, the radical spirit arose in force. It was in this spirit that the resolutions were framed, and it was in this spirit that General Weaver of Iowa and Mr. Kyle of Virginia were named for President and Vice President. The former is well-known to the public. For ten years past he has been more or less a figure in national politics. Formerly a Republican of the independent type, he represented his district in Congress. In 1880 he abandoned the Republican party and ran for President on the Greenback ticket. In 1886 he was again elected to Congress as a Greenbacker, but was defeated in 1888. He is an able lawyer, a man of large, "all-round" political information, and a power in debate. At the beginning of the war he enlisted as a private, rose through the minor degrees to the rank of Major, and for gallantry at the battle of Corinth, was brevetted Brigadier-General. Mr. Kyle is less known and has heretofore had no part in national politics. He has been identified with the People's Party movement in Virginia from the beginning, and is easily its strongest man in the northern tier of the Southern States.

There was a striking difference in the Convention scenes at Omaha and those at Minneapolis and Chicago. The drinking and rowdyism which was so conspicuous at the last-named places was wholly lacking at the former. The delegates were a sober-minded people in dead earnest. They came in homely garb, many of them in hickory shirts and brogan shoes, and more than two-thirds from the anvil, forge and the field. They were for the most part poor men with neither time nor money to waste in revelry and dissipation. The bar-rooms of Omaha did not have to double their force to meet the demands of a crowd, and throughout the whole period of the Convention, the city was as orderly as at ordinary times. There was, it is true, a considerable sprinkling of the worn out and cast off political "hacks" of the old parties—men like Ignatius Donnelly, who having failed in one cause are always seeking a new one, but these men were insignificantly few in number, and their part in the proceedings was only in proportion to their numbers. It was unquestionably a Peoples' Convention, and more democratic in its purposes and in its membership than any ever before held on American soil.

Marion Cannon, the Californian, was one of the striking figures of the convention and he succeded in giving it one of its most sensational incidents. The Pacific railroads did not allow the customary half rate to the delegates, and it was moved to request them to return half of the full fare which had been paid. This brought Cannon to his feet. "I want this convention to understand," he said, "that it is not by an oversight that the Pacific coast delegates were not accorded the usual privileges. Our request for a customary courtesy was denied deliberately and with insolence. I do not want this convention, so far as California is concerned, and so far as I am concerned, to go back to that railroad, cap in hand, and ask for any privileges whatever. The Democrats and Republicans secured half rates; but we, who are not connected with railroads, but are the producers of the earth, have been refused equal terms. We can stand the refusal. The people of California and of the whole country will operate their own lines in the interests of justice before the expiration of another decade."

The National Prohibition Convention finished its labors on Thursday last by nominating General John Bidwell of California for President, and Mr. Joshua Levering of Maryland for Vice-President. This result was accomplished without a "fight" and was accepted with perfect good feeling. The platform calls for the entire suppression of the manufacture, sale, importation, etc., of alcoholic liquors "as a beverage" by State and national legislation; maintains the right of women to vote; declares that money should be issued by the Government only; that a tariff should be laid only against those countries which discriminate against us; that railroads and telegraphs should be "controlled in the interest of the people"; that foreign immigration has become a burden; that no foreigner should be allowed to vote until one year after he becomes a citizen; that no alien should be allowed to own land; that all unearned land grants be reclaimed; that all men should be protected by law in their right to one day's rest in the week, and that speculation in margins should be suppressed. The party is pledged to support of the public school as against the sectarian school and the old parties are arraigned for treachery to the interests of the country, as false to their own professions and promises and as subservient to the enemies of public order and public morals. There is no declaration as to the silver question. The original draft, as it came from the committee contained a straight free coinage plank, but the convention voted to throw it out and a subsequent effort to revive it failed.

The candidate, General Bidwell, is one of the very early pioneers of this state and his biography partakes of the romantic interest which attaches to California in the "Forties." He arrived in the Sacramento Valley early in 1841 after a six months' trip across the plains. Soon after that he obtained employment at Sutter's Fort and remained in Sutter's employ for two years. He was interpreter and aide-de-camp to Governor Micheltorena for a year, until the revolt of 1844 and 1845 resulted in Govnor Micheltorena's expulsion. Bidwell returned to Sutter's employ, and on the advent of General Fremont joined his forces, later being appointed magistrate of the district of San Luis Rey. He was for a short time quartermaster by appointment of Commodore Stockton. In 1849, at the age of 30, he was a member of the first constitutional convention at Sacramento and the following year was elected to the State Senate. In 1855 he was a delegate to the Democratic national convention at Charleston. During the war of the rebellion he was a brigadier-general in command of the Fifth Brigade, California Militia. He was a member of Congress from 1864 to 1867 and was honored many times by being sent to various important conventions. In 1875 he was a candidate for Governor on the nonpartisan and antimonopoly ticket, but was defeated, and a few years later he was a candidate for Governor on the Prohibition ticket. He is a man of large wealth, which he employs widely in benevolent ways. Politically he has been for years identified with the Prohibition party and with antimonopoly and anti-Chinese movements.

Before the delegates came together at Cincinnati, there was a good deal of talk, even in the Prohibition press, looking toward fusion with the People's party. Among the advocates of this policy was Miss Willard, who has heretofore been one of the strongest of the party leaders. Miss Willard had, also, a scheme to drop the name of prohibition and substitute that of "Home Protection party." The convention gave these and other suggestions scant courtesy, and remained true to the ideas and the name under which it has fought up to the present time. In four national campaigns it has stood by its colors, and has fairly earned identity among the established political parties of the country. In 1872 it gave James Black a popular vote of 5608 for President. In 1876 it gave Green Clay Smith 9522 votes. It had no distinctive condidate in 1880, but in 1884 gave John P. St. John 150,767 votes, and in 1888 it gave Clinton B. Fisk 251,147 votes. If the party is not very near success, it is at least growing, and its partisans are content to keep up the fight in the interest of their convictions, even if they do go regularly to defeat. It is not in the nature of things that California should be a prohibition State, but the party has maintained an organization here from the beginning. In a total vote of 250,220 in 1888, California gave the Prohibition candidate for the Presidency 6107. Gen. Bidwell's vote this year will probably exceed these figures.

After all, the Secretaryship of State, was not given to Gen. Tracy. On Thursday last the President sent in to the Senate the name of John W. Foster of Indiana, and confirmation followed immediately. Mr. Foster's appointment is clean apart from politics. He is, it is true, a Republican, but for many years has been out of the line of party affairs. He has served as United States Minister in Russia, in Mexico and in Spain; and is perhaps, the nearest approach among American citizens to the European model of a trained diplomat. Mr. Foster's experience abroad and his acquaintance at foreign Courts will stand him in good hand in the State Department. On the whole the appointment is a good one.

It is a very common remark that the religious interest is dying out in the United States, but the facts as we find them in an article by Dr. H. K. Carroll, Supt. of the Census of Churches, in the *Forum*, point directly the other way. New England, as Dr. Carroll's statements show is no longer Congregational, but Catholic. It contains 1,000,000 Catholic communicants as against 230,000 Congregationalists, yet take the country over, Congregationalism has been increasing more rapidly than Catholicism. In 1880, there were 384,000 Congregationalists and in 1890 512,000—a gain of 33 per cent. In 1880, the Catholic "population" according to Sadlier's Catholic Directory was 6,367,000; in 1890, the number of Catholic "communicants", according to the Census, was 6,250,000. Fifteen

per cent of the church "population" is below the age of 9, 10 or 11. It is difficult to figure the exact percentage of increase in Catholicism, but Dr. Carroll reckons it as only about 20 per cent notwithstanding the enormous emigration from Italy, Austria and French Canada. All of the great Protestant denominations seems to have done better. The Methodist Episcopal church shows an increase from 1,707,000 in 1880 to 2,229,000 in 1890—a gain of over 30 per cent. The Presbyterian church shows a gain of nearly 40 per cent., advancing from 573,000 communicants to 788,000. The various Lutheran bodies advance from 712-000 to 1,200 000—a gain of more than 60 per cent., largely due to emigration. The Christian or Campbellite Church shows an increase from 350,000 in 1880, to 641,000 in 1890—a gain of 83 per cent., without the assistance of emigration. There is no return for the Baptist or Episcopalian, but the report states that there is no reason to suppose that either of these denominations has fallen behind the rest.

Weather and Crops for Week Ending July 4th.

The following crop reports are for the week ending Monday, the 19th of June, and were furnished by James A. Barwick, Director of the California Weather Service, viz.:

Humboldt.—*Mad River*—We are having for our section an unusually long spell of clear, warm weather. Cereals are looking fine, though some ground needs rain. Potatoes on high ground are doing well. Vegetables are in fine condition. Fruit is very light.

Blocksburg—Highest and lowest temperature 92° and 50°. All crops are doing well. Rainfall .02 of an inch.

Hydesville—Haying has commenced. There will be a large yield and of fine quality.

Shasta.—*Anderson*—There is not much change in crops the past week. Harvesting is well along, with good crops. The latter part of the week has been warm, reaching 105° to-day (Sunday). Fruit is ripening fast. Happy Valley shipped some very fine peaches this week.

Tehama.—*Red Bluff*—The weather conditions have not been altogether favorable during the week. It is reported that grain has been damaged by the recent northers. Winter-sown is very light. Fruit suffered very little. A considerable percentage of pears were blown off by the storm. The other trees were scarcely affected. Highest temperature 103°, lowest 56°.

Lake.—*Upper Lake*—Seasonable weather has benefited nearly everything, though it has been a little cool for corn, pumpkins, etc. Grain has ripened rapidly and reaping has begun. The grain crop will be heavy and good. Grapes continue to improve. The season is about two weeks late.

Solano.—*Denverton*—Cool west winds for the past week. To-day, July 1st, a hot north wind. As fast as possible threshing is being done. Crops are nearly up to the average.

Vacaville—The week has been quite warm, and for the past few days we have had a warm north wind, which is ripening fruit very fast. Apricots and early peaches are about all gathered, and Crawford peaches are now being shipped.

Sutter.—*West Butte*—Harvesting of wheat and barley is well advanced. The yield is above the average and of good quality. Alfalfa for seed (not irrigated) is passing from bloom to well-developed seed pod.

Yuba City—The past week has been quite warm. The thermometer has registered over 100° in the shade for several days. The nights are cool. The north wind shelled some grain last Friday and Saturday and blasted some varieties of fruit. Harvest is in full swing. Good yields are reported. There is some grain that is shrunken.

Sonoma.—*Forestville*—Rising temperature; highest 98°, on Friday. Harvesting has earnestly commenced. The early crop of peaches is getting ripe.

Sonoma—Peaches and apricots, while a little backward, will be superior to last year, and in another week fruit will be coming in with a rush.

Healdsburg—The temperature was 101° on Friday. Corn is growing finely. Hay is good, plentiful and cheap. The canneries will soon open on peaches.

Butte.—*Palermo*—Shipment of fruit still continues, with good returns. Barley harvesting is over, and the harvesting of the wheat crop has begun. Temperature on Friday, 100°.

Placer.—*Newcastle*—Highest temperature, 104°; lowest, 51°. All kinds of fruit is now coming forward rapidly and an abundant yield is looked for.

Amador.—*Oleta*—Haying finished and plentiful. Crops of grain on summer fallow good; winter sowing not so good.

Stanislaus.—*Turlock*—The week has been quite warm taken as a whole. Highest, 102°, last Saturday. Rye harvesting is about finished, and wheat well advanced. Some fields of rye gave a large yield. Wheat is not as good as expected.

Alameda.—*Niles*—The cool weather last week has been beneficial to fruit. No apricots picked yet. The wind is from the northwest; force, four miles, which may counteract the effect of the high temperature.

Alvarado—Harvesting has commenced. Fruit is doing well. Beets are growing finely, but a little late; onions, carrots, etc., not up to ordinary prospects.

Pleasanton—The hay crop will be less in quantity than was at first estimated, but the quality will be good. The wheat and barley very plump; harvesting began during the week. Hops are making a more rapid growth, but are fully three weeks late. Sugar beets doing well.

Nevada.—*Nevada City*—The highest temperature was 90°, on Saturday. No damage has been done from the excessive heat. A light north wind prevailed the latter part of the week.

Monterey.—*Salinas*—Harvesting is under way and crops promise a fair average; not quite equal to last year, but better than many previous years.

Santa Clara.—*Gilroy*—The prospects continue excellent, with harvest in full operation.

San Joaquin.—*Stockton*—The last two days were very warm; harvesting going on well; outlook good.

Lodi—Highest and lowest temperatures were 104° and 52°, but causing no damage, as all the grain was ripe, and apparently no injury was done to the fruit or berries; good weather for watermelons, which are very late, and it will be some time before they are ready for market.

Sacramento.—*Sacramento*—The temperature has averaged 4° above the normal during the past week, but on two days, Wednesday and Thursday, it was 2° and 3° cooler than the average; while on Saturday and Sunday was 15° and 12°, respectively, warmer than the average. The average or normal precipitation was nothing, and there was no rainfall during the week. The crop of grain is about secured and the yield is an average one. The fruit crop is rapidly ripening under the heated sun. The highest and lowest temperatures were 102° on Saturday and 52° on Thursday.

San Luis Obispo.—*San Luis Obispo*—We have had northwest winds all the week, but from 9 A. M. to 3 P. M. a light south breeze with light fogs, which is just what is needed. Warm weather is coming on, which will be beneficial if not too warm. Beans are doing well. Harvesting is going on nicely and grain threshing out better than was expected.

Santa Barbara.—*Santa Maria*—The weather has at last warmed up. Barley is threshing out a little better than anticipated, but average is not large. Beans are growing but are thinner than usual and have not a very good prospect. Apricots will soon be ready for drying and canning. Prunes are light. Highest and lowest temperatures, 93° and 48°.

Los Angeles.—*Los Angeles*—The *Observer* at Los Angeles telegraphs as follows: The generally clear and warmer weather the past week has been favorable to all crops, especially for fruit-drying. Apricots are an average crop in some localities and light in others, but the quality is fine. The drying of them is in full operation. Peaches are ripening very fast.

OREGON WEATHER-CROP BULLETIN.

Portland, July 5.—Rain is very much needed, especially for late sown grain, corn and gardens. The total wheat crop of Oregon in 1891 amounted to fourteen million bushels. This year it will not be over ten million bushels. The nearest to an absolute failure is in parts of Morrow, Gilliam, Sherman and Wasco counties. Here in some localities not much more than seed will be secured. Potatoes are doing fairly well, but would be improved by more rain. Hops are in a promising condition. The peach, prune, apple and pear crop will not be an average quantity. The hay crop will be large.

Fruit Marketing.

A Strong Cooperative Movement Among Raisin Growers.

The raisin producers of Fresno and Tulare county are rapidly advancing toward an effective organization on the cooperative plan—or rather perhaps toward a mutual agreement among producers not to sell for less than an agreed price in the sweat-box.

At a meeting held June 23, the following form of agreement among producers was adopted:

We, the undersigned raisin growers of California, having become fully satisfied that the present demoralized condition of the raisin market is almost, if not entirely, due to the absence of any understanding concerning uniform selling prices among the parties who have the products of raisin vineyards in their hands for sale, and from the fact that numerous established agencies in the East are in the habit of competing and thereby underselling each other without regard to prices, we believe the time is at hand when this system of disposing of our vineyard products will bring the raisin growers of this State to poverty and financial ruin.

Now, therefore, in view of the facts above stated, we, the undersigned raisin growers, do most earnestly request, as a matter of protection to ourselves and families, even demand, that the packers who are producers of raisins, and packers who are not producers of raisins, and in fact all who have raisins in proper condition for the markets of the world, join together immediately and agree among themselves to establish a minimum price on each and every grade of raisins, and that they bind themselves not to sell any raisins during this present crop year for less than such minimum price agreed upon. And in consideration of such an agreement as above, we, the undersigned raisin growers hereby agree and mutually bind ourselves upon our honor not to give, sell or consign any raisins subject to our control, during the term above mentioned, to any party or parties who do not enter into our agreement establishing such minimum price.

A declaration of similar import was prepared for signatures of business men and citizens by which they could express their approval of the movement and sympathy with its purposes.

There was a long discussion as to what should be the minimum price in the sweat box, and most speakers argued that it should be 5 cents per pound. The final determination of the figure was, however, postponed.

A large committee was appointed to obtain signers to the above agreement throughout the settlements of Fresno county, and the active cooperation of other raisin producers was invited by the following resolution:

The raisin growers in convention assembled in the city of Fresno, respectfully request your cooperation to secure living prices for raisins and submit the following form of subscription to be signed by the raisin growers of your county to the end that all growers and packers in the State may sustain prices to protect our industry from its worst enemy—increasing competition.

THE MEETING LAST SATURDAY.

On Saturday July 2, there was a great meeting of raisin producers in Fresno, to which the above proceedings were preliminary. The *Expositor* said:

The canvassing committees had done their work well, and had reached all the principal districts in the county where raisins are produced. Thus, the convention was well ready to go into business in a businesslike way. Some of the best men of the country were present. Tulare county had its delegates in the convention, and strangers could be seen from other places. A glance at the people assembled showed that the movement was growing. The report of the executive committee appointed at the last meeting was read by Alexander Gordon, chairman of that committee, as follows:

"We, your committee, report as follows: That in accordance with instructions given at the late meeting of your body we have caused an invitation to be sent to every raisin grower in Fresno county, together with a copy of the petition, and also to every raisin grower in the State whose acreage exceeds 50 acres.

"In all we have sent out 1750 circulars and petitions, and up to 9 o'clock this morning we have received replies and assents to the petition from 729 raisin growers, representing 16,500½ acres.

In order to further the interests of the raisin growers throughout the State, with a view to establishing prices in the sweat-box, we recommend that this meeting be adjourned until the 14th day of July, 1892, for the purpose of obtaining the assent of those not already obtained; that a committee of raisin growers be appointed to present their petition to the packers and sellers of our vineyard products, and to confer with them, with a view of establishing minimum selling prices as indicated by petition. That a resolution be passed inviting all packers and sellers of raisins to meet a committee of growers in the city of Fresno on Saturday, July 16th, at 10 A. M., for the purpose of conference, with a view of establishing a minimum selling price for each grade of raisins for the present season. That the prices of raisins be discussed, but no definite action taken until the next meeting, July 14th.

Discussion followed upon the various points advanced in the above report, which was agreed to. Signatures taken during the progress of the meeting raised the aggregate to 849 signers, representing 18 803½ acres of raisin grapes. According to the figures on the subject, this was four-fifths of all the raisin lands in the county, and four-fifths of all the growers. Others were willing to sign, but felt themselves bound by existing contracts, and therefore not at liberty to do so. But many expressed their determination to join as soon as possible.

A resolution was adopted that a committee be appointed to draft a letter to Congressman Bowers, asking that a tariff of 2½ cents a pound be placed on Zante currants. The following gentlemen were charged with that duty: W. A, Noble, D. T. Fowler and Alex. Gordon.

The committee to meet the packers was appointed as follows: D. T. Fowler, Alex. Gordon, John S. Dore, Miss Hatch, Mr. Vanwormer, Mr. Oothout, Colonel Trevelyan, P. Y. Baker, E. P. Irwin, P. M. Pyle of Kern county, Mr. Maxwell of Yolo.

It was ordered that one representative from each county in the State where raisins are grown be invited to attend the meeting in Fresno on July 14.

The Santa Clara Movement.

At a meeting of the Fruit Growers and Driers' Association in San Jose June 26 a discussion arose as to the benefits to be received from the Fruit Exchange, which has recently been established. Colonel Philo Hersey, president of the exchange, being present, said:

The Fruit Exchange is of as much importance to the drier as to the grower. Were I a drier and knew what the market was I would like to buy on as close a margin as possible. Last year a great many of the driers sold their fruit for 5½ cents a pound, and a short time afterward fruit went up to 6¼ cents a pound. What was the cause of all this? Simply on account of the lack of such an organization as the Fruit Exchange. Eastern buyers said it was caused by no other reason. It only establishes the fact that we must have an understanding among ourselves. We are not organized to injure the driers, but to help them.

"Two million pounds of prunes will be raised this year, and if the Exchange can control three-fourths of the crop and the driers the balance, then we can hope in some way to arrange to hold up prices. We are charged with working for the interests of one house, but if we can keep up prices so as to save the one-tenth that was lost last year, then our purpose has been accomplished.

"If we can make the Fruit Exchange a success, then we will be able to cut loose from all commission houses."

"I am in favor of the Fruit Exchange," said Mr. Fleming, "but there are some parts of its objects that I do not like. The fruit driers and growers object to tieing themselves up. They want to be able to sell their own products at any time. I would like some information upon that subject."

Colonel Hersey—The West-side Fruit Exchange has seventy members, and as soon as the fruit is delivered at the drier they lose sight of their product because it is graded and credited up to them and then dumped into bins. When the fruit is sold they are paid pro rata. It is good, because better facilities are offered for not only grading but drying the fruit, consequently the goods and grades are uniform and better prices can generally be procured.

A MEETING OF THE EXCHANGE.

The San Jose *Mercury* gives the following report of a meeting of the stockholders of the Santa Clara County Fruit Exchange held July 2:

Colonel Philo Hersey presided at the meeting and W. H. Wright acted as secretary.

Quite a discussion took place in regard to the adoption of the by-laws. On motion of Colonel R. P. McGlincey, the following article was offered to be added to the by-laws: "No person can acquire by purchase more than 100 shares of the capital stock of this corporation." The amendment was favored by F. M. Righter, who said he understood that capitalists were ready to put their money into the Exchange as an investment, but such money was not wanted or needed by the corporation. It is desired to have for stockholders only those whose interests are identical with those of the fruit growers. The amendment was then unanimously adopted.

In response to R. P. McGlincey's inquiry President Hersey stated that more than five-sixths of the present stockholders did not own more than one share each. In explanation of that fact Director Righter stated that when the canvass was made the impression got abroad that it was not necessrry that a fruit grower should subscribe to more than one share.

In the afternoon a directors' meeting at which there were present Directors Hersey (president), Dawson, Gordon, Righter, Johns, Adams and Crandall.

President Hersey stated that circulars explaining the direct objects of the Fruit Exchange had been printed and sent to all fruit growers throughout the county. He also reported having the promise of about 200 more shares. A member of the other directors reported additional shares promised.

The directors decided to go into business this year and hope all fruit growers will rally to the Exchange's aid and help to make it a success by subscribing for stock.

HORTICULTURE.

Pioneer Fruit Growers of Tuolumne County.

The State Horticultural Society is making a commendable effort to gather information about the beginnings of horticulture in this State. For convenience, the subject is being worked up by counties and localities, and after much material has been accumulated it is expected to condense it into a horticultural history of California. Different counties and localities are entrusted to different writers, and their chapters are now coming before the society. At its last meeting, W. B. West of Stockton read a paper on early fruit growers of Tuolumne county, which is printed below. It is hoped that the current publication in the newspapers will draw out contributions from others who may possess interesting and important facts.

MR. WEST'S PAPER.

Tuolumne county was one of the first to make an effort to establish orchards and vineyards, and up to 1860 it had, perhaps, more land in cultivation and money invested in this interest than any other in the State. Many orchards and vineyards were planted; the population was large and furnished a good market for all the fruit and vegetables that could be produced. There was but little diminution in the yield of gold and everything was prosperous. In the virgin soil all kinds of deciduous fruit trees grew wonderfully, and the absence of insect pests, blights and mildew rendered the work of the orchardist comparatively easy, and the good market at home made the enterprises quite profitable.

Previous to 1865 there were apple trees that were a foot in diameter at the ground, whose products were reckoned by barrels, cherry trees 30 feet high and wonderfully productive. The mountain orchardist spared no pains to procure the choicest varieties of fruit and to cultivate them intelligently.

The prosperity of horticulture began to wane in 1860; the placer mines had been growing less and less profitable for two years. The fruit was not so readily disposed of; shipments to San Francisco, Stockton and eastward were made. Wagons were sent to the plains and the fruit disposed of to farmers. Every effort was made by the energetic fruit grower to render his business profitable, but the business could not be made to pay.

PRESENT CONDITION OF ORCHARDS.

It is sad to see the decadence of those promising and profitable orchards. On rich, deep and moderately moist land the apple and pear still remain and produce fruit much better than their condition would seem to warrant, but many plantations were made on soils where the depth was not great enough to sustain the trees without irrigation, and as the price of fruit became less with the constantly diminishing population, the proprietors became disheartened and let their places run down. The inroad of the codlin moth and scale finished the work in many places, and old, diseased and abandoned orchards remain where once was thrift and prosperity.

How great the disappointment has been can only be realized by seeing those abandoned orchards and beautiful little homes that are so common in the mountains.

SMART'S GARDEN, JACKSONVILLE.

This was the pioneer of orchards and vegetable gardens in Tuolumne county, and established in 1850 by Mr. U. S. Smart, a native of the State of Maine. He was at that time about 55 years of age, a thoroughly active, bright man and a money maker.

He commenced by inclosing a small piece of moist land upon Wood's creek, a little distance from its junction with the Tuolumne river, at the town of Jacksonville. He had for sale in 1850 vegetables of all common kinds. It is said that he furnished a vegetable dinner to miners at the moderate sum of $2.50 a head. It is also said that his price for cabbages, turnips and beets was $1 per pound. One party assured me that he paid him $6 for one head of cabbage.

In the fall of 1854 he received an invoice of trees and vines from the East. The assortment was very complete, and from these were propagated many of the orchards of Tuolumne county. These trees, and probably a few peach trees raised from seed sown in the fall of 1851, produced peaches in 1854, and a crop in 1855. Marvelous stories are told of the prices obtained for these first fruits. Visitors paid $5 to $10 apiece for what they could eat. Equally marvelous were the size and flavor of these novelties. With due deference to the word of the old '49er, and the time that has passed since these recollections, we must recognize the fact that at that time the commonest kind of fruit was not to be had; canned fruit was not so common or so good as it is to-day, and the miner who was working for a homestake would hesitate at paying $2, the common price, for a can of peaches or apricots. He would, however, pay $1 for a peach without a murmur.

The following is the statement of Mr. Peter Lesher of Modesto, who was then an orchardist and a fruit dealer in Sonora, Tuolumne county: I bought from Mr. Smart some of his first crop of peaches, for which I paid him 50 cents each. Took 500 or 600 at a time. I took these to Sonora where I sold them for $1 each as fast as I could pass them out.

In 1854 Mr. Smart had about three and a half acres enclosed and in fruit. In 1858 Mr. Peter Lesher leased the orchard. It then had sixteen acres of bearing fruit and was in a very profitable condition. In 1863 Mr. Smart sold the orchard to miners and the whole place was mined out, thus finishing one of the most profitable ventures in orchards in the county.

As everyone who has ever lived in Tuolumne county (and they are a host) has some recollections of Smart's garden, it may not be inappropriate to mention the latter days of the enterprising man who established it and what became of the fortune made by so much industry and perseverance. I quote from a letter of F. N. Smart, Lodi:

"After selling out Mr. Smart joined a company formed to grow cotton at the Galapagos Islands. The scheme was a failure and he was left alone on one of the islands for three years, living a Robinson Crusoe life. He succeeded in starting a garden, but in the mean time came near starving. He was finally taken off by a passing vessel and brought to California, where he died about 1870. His whole fortune was consumed in the enterprise and he died a poor man.

ORCHARD AT GARROTE No. 1.

Statement of James L. Coggswell of San Francisco: In the spring of 1854, Mr. Otis Perrin, now Register and Receiver of the Land Office at Stockton, and myself, were residing at Garrote No. 1, Tuolumne county. Wishing to improve our property by planting an orchard, we sent to West Bros., Stockton, an order for trees. We received an assortment of apple, pear and peach trees. They were imported trees, grown at Stockton one year, and produced fruit the year that they were planted, and soon were producing fine crops.

Our vegetable garden was a great success. We had no blight or mildew, or insect pests, that I recollect. Our fruit and vegetables were fine and abundant.

ORCHARD AT MOUNTAIN PASS.

Statement of J. A. Goodwin, Mountain Pass: I settled on my place in 1854. I always had a desire if I ever was owner of a piece of land, to have an orchard on it; still I knew nothing about horticulture. In the winter of 1854 I bought a pound of peach stones (for which I paid one dollar) and planted them; not one came up the following spring, but after remaining in the ground a year they made their appearance. An old Englishman, a neighbor, taught me to bud, to prune and take care of the trees. He was very particular, and the result was, the fruit was very fine. I used to sell peaches at 25 cents per pound, or 75 cents per dozen.

In the spring af 1856 I bought from a peddler from San Jose a good assortment of trees and vines. There were apple, peach, plum and six common black fig trees, of which three are now living, and are, I think the largest in the State—the body of one being 12 feet in circumference. My trees have all grown and done well; the more I have cared for them, the better they have paid me. I have always been in favor of irrigation, and have used water freely, although I could have done without it, but was determined to have the best fruit.

ORCHARD AT GROVELAND.

Statement of Chamberlain & Chaffee:—We commenced to plant our orchard in the spring of 1859. It consisted of apple, pear, plum, peach, apricot, cherry and nectarine trees bought of West Bros. of Stockton. We had at that time no experience in fruit-growing, and paid dearly for knowledge obtained. The borers attacked our young trees, and not knowing how to combat them, we lost heavily. The climate was too severe for our stone fruit; the spring frosts killed much of it, and sometimes the trees. Plums were a failure, but peaches did a little better. We get fruit about one year in five. We set out two thousand grape vines, but they were still more uncertain; so we dug them up and planted apple and pear trees in their place. The only fruit that has paid us to cultivate is the apple and pear. In early times we took great care of our orchard, cultivating, pruning and irrigating, and could sell our fruit at good prices—3 and 4 cents per pound at home. As the population diminished, we found more difficulty in selling here, and shipped it to San Francisco, where it brought a fair price at first; but as the codlin moth increased, the market was full of wormy apples, which were sold at any price that could be obtained. Good fruit had to compete with it. We have not suffered so much from the ravages of the moth in our orchard.

At present we neglect our orchard, paying no attention to the trees except to pick the fruit, which is as good as it ever was, and on favorable years the quantity is ample. Upon deep land the trees thrive, but on shallow places they are dying out, as we do not irrigate now.

STATEMENT OF L. F. JARVIS.

I think, with you, that the names of the pioneers in horticulture, who at great risk and expense solved the problem of fruit culture in California, "should be recorded before they all pass away," and for that purpose will willingly contribute what I know regarding Tuolumne county.

My father, Edward S. Jarvis, and I bought Vine Spring Ranch of John Randoller and Joseph Lord, who had squatter titles to the land between Gold Springs and the Stanislaus river, and were raising vegetables and selling them to the miners of Sonora and other camps at two or three bits per pound.

The next year, 1852, I bought an invoice of peach, apple and pear trees from Oregon; but, owing to bad packing and exposure to the hot sun on the way, were completely dried up and destroyed—not one survived. That same spring, 1852, I got from Mr. Beard of the Mission of San Jose about 1000 cuttings of the Mission grape. Nearly all took root and produced the first grapes raised in the county, which sold readily for 25 cts. per pound.

In 1854, Capt. U. S. Smart of Jacksonville, on the Tuolumne river, received a fine lot of foreign grape cuttings—over 60 varieties of table and wine grapes—from Dr. Butte (Buist?) of Philadelphia. He also received a large lot of apple, pear, peach, cherry, plum, fig and other trees. His place being only 3½ acres, we bought most of these, started a nursery by root-grafting, and soon had all the stock we could use, and supplied most of the demand in the county.

Smart's Garden, well known to all pioneers, was a favorite resort in early days. His peach trees began to bear in 1855, and visitors paid from $5 to $10 apiece for what they could eat. H. P. Barber, a prominent lawyer of Sonora, went there one day with a lady. After eating what fruit they could, B. called for his bill. "$25, Mr. Barber." He paid it. Soon after, the Captain called at B.'s office for advice, got it, thanked him and was going out, when Barber said, "Hold on, Captain! You have forgotten my fee." "How much is it?" "Fifty dollars, sir." "Is not that rather steep?" "Not steeper than $25 for a little fruit."

In 1858, I think, C. & J. Parsons started a nursery in Columbia and sold a great many trees. For many years there was no disease in orchards or vineyards, and the fruit was of the first quality. The first pest to make its appearance was the codlin moth, sent from the States to Sacramento, thence to all parts of California. There was no mildew, nor do I think the vineyards in Tuolumne require sulphuring now. When I left six years ago, the orchards and vineyards were in good condition where they had been taken care of. The first wine made by me was in 1858, and was much praised by those whom I had the pleasure of entertaining. In early days the mining camps were the markets for all we could raise, afterward San Francisco, Stockton, San Joaquin valley, Nevada and Mono.

THE APIARY.

Recognition and Treatment of Foulbrood.

INDEPENDENCE, CAL., June 17, 1892.

Foulbrood is a contagious disease which attacks and kills the brood of bees while this brood is in the larva state. The disease germs are mainly contained in the honey, and, through the food prepared by the nurse-bees, conveyed to the brood, although it does not affect the perfect bees; nor does it destroy all the brood at once.

The symptoms of foulbrood are:

1. A peculiar, offensive smell, at first noticeable only when the hive is opened, but, as the disease spreads more, being strong enough to be detected at the entrance of the hive, or even in the surrounding air.

2. The capping over diseased brood always becomes concave, or sinks into the cell, and is often of a darker color than the cappings over adjoining healthy broods.

3 Frequently, but not always, there will be found a small pinhole in the center of the capping over the diseased brood.

4. The dead brood turns into a thick, sticky, coffee-colored matter. On pushing a small stick into a diseased cell and then withdrawing it, this matter will adhere to the stick and come out with it as an elastic string, which breaks when the stick is from one to two inches from the surface of the comb, and most of the matter flies back into the cell.

In course of time, this matter dries up and lies as a hard brown scale along the horizontal bottom wall of the cell.

Cells having contained diseased brood are never cleaned out by the bees, and are never used afterward either for brood or honey. Consequently, though the disease may spread slowly, the breeding space becomes gradually less, until there are so few cells left for the disposal of the queen that she cannot keep up the numerical strength of the stock sufficient to protect the hive, and the result generally is that other bees from the healthy hives rob them and carry the disease home, to run its course over again.

The disease is usually dormant, or nearly so, during the winter, but as warm weather comes on it increases in proportion to the general temperature, and the increasing amount of brood in the hive. If, however, the colony is naturally strong and has a good queen, the bees may be apparently as prosperous as any healthy stock, and have been known to store surplus honey through a whole season and pass through the ensuing winter. But the next spring or early summer will usually finish the career of a diseased stock, even if it is not robbed or destroyed by other bees. The principal danger lies in robbing.

The cure of foulbrood is simple and need not occasion any serious loss, if due precaution is taken in carrying it out.

In the first place a diseased hive should never be opened while bees are flying, if there is any disposition to rob in the apiary. Such work should only be done late in the afternoon, when the bees have about quit flying. Honey in frames or sections, or on plates from the household table, should never be exposed where bees can get at it, as the least drop is liable to convey the disease to a healthy colony. After handling a diseased hive, the beekeeper should thoroughly wash his hands and the tools he has used to prevent disease-germs from being afterward carried to other hives.

Prepare a hospital hive by taking any good, sound hive without any cracks or openings except the entrance, through which the bees can escape. Make a frame of one by two inch sticks, to fit on the upper rim of the hive, and to be fastened with screws. Cover this frame with wire cloth on one side.

At the proper time move the diseased hive off its stand, and set the hospital hive in its place. Put a cover over the wire cloth frame, but leave the entrance open. A few empty frames may be put into the hospital hive for the bees to cluster on, but they are not necessary.

Now take the combs out of the diseased hive, one at a time, and brush every bee off in front of the hospital hive and let them run in, as in hiving a natural swarm. Set these combs into an empty box. When all the combs are out, brush the remaining bees out of the diseased hive, but be careful not to scatter any trash or bits of wax on the ground, and under no circumstances shake the bees off the combs, as new, thin honey, containing disease-germs, may be spilled on the ground, and afterward sipped up by other bees. Carry the diseased hive, cloth, cover and box of combs to a safe place, where no bees can get at them.

When all the bees have entered the hospital hive, close the entrance with a stick, so that none can get out. Raise the cover over the wire cloth, so that they can get air, but still be shaded from the sun during the daytime.

Then prepare the following mixture: Salicylic acid and borax in equal parts. Dissolve four heaping teaspoonfuls of this mixture and two teaspoonfuls of salt in a pint of water. Shake occasionally, until most of it is dissolved, which will take several hours. For this reason, the mixture had better be prepared beforehand. Saturate a sponge, the size of a man's hand, with this solution, and lay the sponge flat on the wire cloth, so that the bees can suck it. Saturate the sponge, but not sufficiently to drip, three or four times a day, for 48 hours. At the end of that time the bees will have consumed most of the honey they have had in their honey sacks when they were confined. Now, change them into a clean hive, supplied with frames and full sheets of comb foundation, but give them no empty combs or combs of honey, in which they could deposit any disease germs. If any honey still remains in their honey sacks, this will be converted into wax, with which to build their new combs. As they have to make a new start, the best time is, therefore, when honey is coming in freely

The hospital hive may now be used for another diseased stock.

The combs from the diseased hive are to be cut out of the frames and melted up. The wax will be good for comb foundation or other purposes. Bringing the honey to the boiling point will destroy the disease germs contained therein, but care must be taken that the honey does not get scorched. The work must of course be done indoors, where no bees can get at the combs or honey. The frames, cloth and refuse must be burned up; also everything that can be scraped off from the inside of the hive and under side of the cover. Finally, the hive and cover should be boiled in clean water. If a vessel large enough for the purpose is not obtainable, the hive and cover may be charred by burning shavings, straw or brush in and around them. As soon as they are thoroughly charred, throw water on them to extinguish the fire. But as disease germs

may be lodged in the joints of the hive where the fire cannot reach, boiling is the safest.

It is advisable to leave the hive unoccupied and exposed to all kinds of weather for at least a year, when the charred surface may be scraped off and the hive may then again be used without any danger of contagion.

As long as any foulbrood remains in the apiary or in the neighborhood within flying distance there is always danger of the disease breaking out again It is therefore of the greatest importance, that when foulbrood is known to exist in any locality, a thorough examination be made of all colonies and that wherever the least symptom of the disease be found, a thorough cure be effected as soon as possible.

A beekeeper who handles foulbrood cannot be too cautious in regard to spreading the disease. Before going to any other place where bees are kept, he should not only wash himself but also change his clothes, which he has been wearing in the apiary. Foulbrood is suspected to have been conveyed through the mails in letters written with hands unwashed after handling diseased hives; and it is regarded as an almost criminal offense to send samples of foulbrood through the mails, or to bring such to another apiary for inspection. A beekeeper who is conversant with the disease can tell just as well from a general description, whether a suspected case is foulbrood or not, as if he personally examined the combs. By beekeepers unfamiliar with the disease, chilled brood which is of common occurrence in early spring, is often mistaken for foulbrood. But chilled brood occasions nothing but a temporary inconvenience to the bees, and will be cleaned out by them without causing any further trouble.—Wm. Muth-Rasmussen, in Inyo Register.

SHEEP AND WOOL.

Delaine-Merino Sheep.

The distinction made between the common fine wool Merino sheep and the Delaine is one of importance to those engaged in the line especially of fleece production. A correspondent of the *Ohio Farmer* says that in writing an article on this valuable breed of sheep, I wish to tell, first, why their wool is more valuable and quoted higher than ordinary fine wool. First, the protection given to worsted goods by the tariff of 1867, aided by the enterprise of an eminent manufacturer, Mr. E. R. Mudge of Boston, resulted in planting in this country a branch of textile industry until then unknown; to wit, that of combing, spinning and weaving into fine worsted goods our fine combing and delaine wools. This new process of combing instead of carding is one in which the fibers or strands of wool are laid parallel with each other and spun at full length in yarn, thus getting all the strength of the fiber. It is thereby susceptible of being made the finest as well as the strongest and most durable of any other fabric of woolen production. There is no class of wool now produced that will yield a better return to the husbandman than the fine delaine wool. We are fully aware that the class of goods now manufactured from delaine wool is very fashionable, and that fashion increases the demand for the time being for the fashionable article that at other times would not exist; yet, aside from this, their comfortable and durable wearing qualities are so superior that no change of fashion will materially decrease the demand for such goods.

Textile fabrics from this class of wool can be made very firm and yet very strong, so that they can be worn in southern climates, even for ladies, where but a few years ago there were little or no woolen goods worn. If this class of goods is so valuable, then the wool necessary to produce them must be in demand and bring good prices. But what are the qualities peculiar to delaine wool, by which it is alone suitable for the manufacture of this superior class of goods? Since this class of wool has become so popular, many breeders call their wool delaine. All is not gold that glitters, neither is it all delaine wool that is called such. It is not every fleece with a fiber three inches long that deserves the name of delaine. There are certain conditions, such as healthy, strong-constitutioned sheep, uniform care and feeding, length and uniform strength and fineness of fiber, that are essential requisites to a good delaine fleece. The fiber should be at shearing time from two and one-half to three inches long, with white, well-distributed oil, enough to protect the wool, but not enough to form a black coating or crust on the outer ends of the wool that will not wash off, but remains to be broken off in the manufacture, or if not, will form a brittle place in the yarn and destroy it for spinning purposes. It must be a compact fleece, not loose and stringy, or else a long, brittle top will form on the fiber, which destroys its combing qualities.

A compact fleece also protects the animal from cold and wet. If the animal is chilled, even for a time, the fleece is destroyed for delaine purposes. The conditions for a good fleece of delaine wool are: A large, healthy, strong sheep, dark (not black) top, not an excess of oil, a long, strong fiber, the sheep always well cared for and in good condition. But sheep are kept for a twofold purpose—for wool and mutton. To combine the two qualities in their greatest development in the same animal is conceded to be a physical impossibility, yet the nearest approach to such results would certainly be a model as well as a most profitable sheep. The Merino is conceded to be the best wool-producing sheep, but is it a success as a mutton producer? If it is, then it becomes the more important and desirable. On this point, we claim for the Delaine-Merino mutton, equal quality to any other. The correlation which always exists in the different parts of the same animal is evidence that the finer the fiber of the wool the finer the fiber of muscle or flesh.

MUTTON VS. WOOL.—The culture of the special wool crop has cost the American farmers millions of money. There is five times as much profit in the mutton as in the fleece. A sheep may be fed for one-seventh of the food that an ox requires, and will make a growth of nearly three-quarters of a pound a day for the first 280 days of its life, when it becomes excellent mutton. For 600 days it will make nearly half a pound a day. Such sheep will easily net six cents a pound at the farm. But such sheep, too, having a large carcass, will have a large fleece in proportion. So the income from it will be large in both ways. There is nothing shadowy about this kind of sheep, but strange to say, in pursuit of the most transparent shadow referred to, this substance is lost.—Rural World.

SHEEP SHEARING BY MACHINERY.—An interesting exhibition was held at the warehouse of L. A. Watkins at Denver, on the 6th instant, when two sheep shearing machines, manufactured by Bergen & Ball, of Sheffield, England, were tried upon a variety of sheep, ranging from the most wrinkled Merino ewe to thoroughbred Shropshire. In every case the work done was first-class, and astonished most of the spectators, who were representative sheep men from New Mexico, Colorado and Wyoming. J. D. Woodruff, a large sheep owner of Lander, Wyo., kindly assisted the exhibition by shearing several to satisfy himself of the practical utility of the machine. Never having seen the machine before, he could not be called an expert, but the first sheep was sheared in 12 minutes, and a better job was never seen. Professor Quick, of the Agricultural College at Fort Collins, also sheared some and expressed himself as very much pleased with the easy and clean way the machine did the work. Mr. Watkins had received a cablegram from the manufacturers requesting him to postpone the exhibition, as they had shipped 25 improved machines recently, but the work done with the two on exhibition was sufficient to demonstrate that in the near future they will be generally used on all large ranches. It is next to impossible to cut the sheep, and fully a pound more wool is taken off than by hand from heavy-shearing sheep.

THE UPGRADE.—The upgrade of sheep and the dairy has been attained on the line of the improved breeds. The hogs, too have been quite universally improved, and scrubs have given place to high grades and full bloods of the various improved breeds. Cattle and horses must follow the established law of improvement, and when farmers learn the necessity of breeding to only pure-bred bulls and stallions, they will then insure the success of stock-raising on the farm. The grade sire of any and every kind is a delusion, and a sire as the father of scrubs is a step backward from full blood sires.

THE DAIRY.

The Dairy Industry in the West.

New industries come into a country as the tides rise on the shore. There is a great wave which scatters itself on the rocks and then flows backward. The next wave breaks higher, and has less of a reflux. On the whole, however, there is a marked and substantial advance. It is in the memory of all middle-aged farmers when the butter product west of the Mississippi was rated as grease, and sold at grease prices. Then came the discovery to the butter-eating world that the Iowa product was greasy or golden, at the will of the maker, and the dairy industry at once took the form of a boom. The next decided move was the introduction of the creamery inch and the gathered cream system. Creameries sprung up over nearly all the States, and often far in advance of the dairy conditions. The grains were there, and in some cases the improved grasses, but a dairy population and dairy cows were wanting, hence many of these ventures were failures, frost-bitten blossoms and worm-eaten apples, which fell with the first wind, to the great relief of the proprietors. The raising of grains and the growing of cattle, horses and hogs was too profitable to induce men who were not reared on cows' milk and broken into the cow's way in their youth, to learn how to be on good terms with the dairy cow, and for a time the dairy interests were driven back from a large part of a natural dairy region. One of the great sources of grief and loss in these early ventures, was the fact that no way had yet been found of giving full value to the farmer who kept his own good cows, fed them well and took good care of the milk. Milk was sold like butter in the middle ages of the West, at the same price. Then came the separator, which made whole milk creameries on a large scale possible, the milk test, which enabled the creamery to distinguish between the blue milk and the rich, to get even with the pump if it put its snoot in the milk can, and finally the baby separator, which enables the dairyman with 20 cows or more, to milk, cream it and feed the skim milk to the calves as a morning chore, and saves him the space, with all that means, in his spring house. He has milked his cows, taken off the cream and put his skimmed milk in the best market for it—the calves' stomach—in the best condition, and needs but a small tank to take care of his cream. All these are marked steps in dairy progress. Meanwhile other changes of scarcely less importance has been going on. The low price of cattle and the high price of land have been forcing on the attention of the farmer this fact, that he cannot afford to board the ordinary cow a year for the chance of a calf. He must have something more than this, or find something besides cattle to eat his grass. To many men this is a most unwelcome view. They have perhaps been unfortunately raised to view milking as women's work.

They have never been inducted into the mysteries of feeding the calf, or, if they have, in the small way that tends to make a man disgusted with the business. It is not a pleasant thing for a man whose education has been away from the dairy to come down to pulling teats and feeding calves, but we are afraid that thousands will come to it, or do worse. When land gets up to a certain price, and has a certain rental value, the calf ceases to do the milking. Look eastward in any State, and see if this is not true as gospel. Why should it not be equally true in the West? Fortunately, butter-making and the management of cows is fast becoming a science. Farmers are learning how to organize creameries, and young men are choosing butter-making as a profession, and it will soon be possible to conduct creameries on a far less margin than in the past. The farmer will get a larger share of the proceeds, and when even the grain grower and the cattle feeder see that it will pay, they will be ready to enter the dairy kingdom as a little child, for the money that is in it. It would not surprise us if some of these new converts to dairying should surpass others who would not be happy unless they had ten cows to milk morning and evening. They will have nothing to forget, and will enter upon the study of dairy problems as a lawyer enters upon the study of a case at the bar.

They will test the milk of each cow, and quickly reject the unprofitable servant. They will bring to the subject of dairying their knowledge of breeding and feeding. In fact, the greatest improvement possible, as we see it, in the dairy business, is to make ten cows, with ten cow's cost and ten cows' keep, bring the profit that twenty do now. That this is clearly possible is manifest from the fact that it has been done over and over again, and is being done to-day. Heretofore, there were no means of ascertaining, short of churning each cow's milk by itself, which was the dead beat border at the bovine table. The milk test settles that for every man that will apply it. There are men who are going into the business that will apply the test. Then will come the science of breeding for milk, as yet applied to but three or four breeds, but which will in time be applied to many others. Then comes another question—whether the test will give the honest cheese value. There is a world of knowledge yet to be discovered about the cow, her milk, her ancestry and her posterity. There is plenty of room for the breeder, the feeder, the butter maker, the cheese maker and the scientist to distinguish themselves. The agricultural mind of the West is observing the cow, studying her possibilities. Formerly, farmers who were in the mire of debt were wont to get a good grip on the cow's tail in order to be pulled out. They are observing her teats now, and will in due time get a fourfold grip. The mechanics are studying how to get out the cream, the agricultural colleges are teaching the boys how to churn it, the bacteriologists are telling us all about the inhabitants of the milk can, the chemists are telling us all about the rations for the cow, the breeders are applying the laws of inheritance, and the farmer is "all ears" to hear what true things these men say and what wise things they may do. From all these he may get wisdom, and will apply it to the increase of his own bank account and the glory of the cow.—Western Farm Journal.

SWINE YARD.

Points of a Good Hog.

There is not uniformity enough in the variety of breeds of hogs reared in the West to warrant a correct description of them under one general head; however, we think that a few remarks or indications would not be out of place, pertinent to what a hog of any breed should be to deserve the qualification, "good."

First of all there should be sufficient depth of carcass, and such an elongation of body as to insure a good lateral expansion. The loins and chest should be broad. The breadth of the chest denotes sufficient room for the heart and for a good play of the lungs, and the consequent free and healthy circulation of the blood, essential to the thriving or fattening of any animal.

All bones ought to be firm and small, and the joints fine. Nothing is more indicative of high-breeding than this. The limbs of a first-class hog ought to be no longer, than, when fully fat, would prevent the animal's body from trailing on the ground. The leg is the least profitable part of a hog, and we require no more than is absolutely necessary for moving about.

The feet should be firm and sound, the toes lying well together, and pressing tightly upon the ground, and the claws—even, upright and healthy.

Many think that the head is of little or no consequence, and that a good hog may have an ugly head; but I regard the head of all animals (as of all men) as one of the principal points in which pure and impure breeding will be obviously indicated.

A high-bred animal will arrive more speedily at maturity, will turn out more profitable than one of questionable or impure stock; and such being the case, I consider that the head of the hog is by no means a point to be overlooked by the purchaser. The description of a head most likely to promise, or be the concomitant of high breeding, is one not carrying heavy bone, not too flat on the forehead, or possessing too long a snout. The snout should be short, and the forehead rather convex, curving upward; and the ear should be, while pendulous, inclining somewhat forward, and at the same time light and thin. In a word, the good hog must be an aristocrat, which means nothing more than lightness with strength of bone and suppleness of body.

Nor should the buyer pass even the carriage of a pig. If it be dull, heavy and dejected, reject him on suspicion of ill health, if not of some concealed disorder, actually existing or just about to break forth; and, attention, farmers; there cannot be a more unfortunate sympton than a hang-down, slouching head. Of course a fat hog ready for the shambles, or a sow heavy with young, has not much sprightliness of deportment.

If hogs, such as the description portrays, were reared, no matter of what grade or breed, an immense profit would accrue to the farmer who is interested enough to note

these few indications.—Perry Warren Davenport in Prairie Farmer.

TRANSFERS OF BERKSHIRES.—Jno. G. Springer, Secretary American Berkshire Association, Springfield, Ill, sends the following transfers of recorded Berkshires in California: Solano 27752, Sonoma 27753 and Belted Cruiser of Eden I. 27751, Henry P. Mohr, Mount Eden, Cal., to J. C. Penke, Mount, Eden Cal. Our Dick 27781 and Charmer's Duke 27767, Byron D. Brown, Nelson, Neb., to John H. Temple, Puente, Cal. Lynwood Fancy 27744, Lynwood Dennis 27743 and Lynwood Dottie 27430, Sessions & Bigelow, Los Angeles, Cal., to Sessions & Co., Los Angeles Cal. Mayday 27766, Mayfield 27765, Rayle 27764, Dayle 27763, Dinah 27762, Cora 26506, Sallie XX. 26504, Orima Donna 24437, Model Lass 24432, Model Sallie 24220, Cape Flower II. 24218, Redwood Charmer 24216, Royal Beauty XXVIII. 21630, Redwood Sallie IX. 21044, Perfection 21042 and Minerva 21041, estate of Andrew Smith, Redwood City, Cal., to Alfred Seale, Mayfield, Cal. Model Queen 24428, estate of Andrew Smith to Henry P. Mohr, Mt. Eden, Cal.

HOW TO MAKE LEAN PORK.—It is cheaper to produce meat that contains a large proportion of lean with the fat, than to fatten the hog to such a condition as to fit it only for the production of lard, and it is a fact that by feeding for lean meat a greater weight of carcass is secured, and at no more expense than in producing an excess of fat. This is explained by reason of the fact that when an animal is given food containing the elements of growth of bone and muscle as well as fat, the condition of the animal is sustained in a manner to permit more perfect digestion and assimilation, and a greater proportion for the support of the system of the nutritious elements that are required, and which are more evenly distributed through the body, instead of the semidiseased condition produced when corn is given as an exclusive diet. Hence the farmer who diminishes the ration of maize, allowing but a portion only—substitutig therefor bran, middlings, milk and clover cut fine and scalded—will have his hogs larger, heavier, healthier, and of a better quality of flesh than from corn. While giving the advantages of a systematic method of feeding for the best results in producing the heaviest pork, the fact that prime lard brings a price that makes it desirable on the part of the farmer to have his hogs fat, it must be admitted, is a serious obstacle in the way when lean meat is advocated, but the lean is simply interspersed with the fat, and the greater increase from the variety of food does not diminish the supply of lard. The farmer will find that in those portions of the carcass from which the lard is produced, but little difference will be observed, and the hog will be much more valuable as a whole.—Ex.

THE FIELD.

Yolo County Fruits and Farms.

WOODLAND, June 25.

TO THE EDITOR: While Woodland, Winters and Davisville have long been the chief fruit growing centers in Yolo county, and will doubtless remain so in great measure, they will not be the only ones. Within the past two or three years localities which had been considered unadapted to much else but agriculture have shown large orchard and vineyard acreage.

Winters was shipping fruit East a month ago, and the apricot and early peach harvest is about completed. A section that is bidding fair to rival Winters, and for which even more is claimed, though just where and why is not always evident, is Capay Valley. It certainly has temperature enough, as during four days of this week the thermometer registered above 100°, reaching 112° on Sunday, at the head of the valley. But a little thing as that is considered no drawback, and we hear expression of great hopes for this valley.

Like many other sections of this State, Capay valley owes its development ingreat part to the railroad Co., which secured some six thousand acres of the best land in the valley at an average of $40 an acre; built their road, and then, with their usual magnanimity, dispensed it to needy colonists in 10 and 20-acre doses, and even larger, at an average of $150 an acre.

The pioneer in the fruit industry in the valley is W. B. Still, of Guinda, who has 76 acres of 4-year old apricots and peaches. This year he expects to ship about 8000 boxes. What the actual capacities of the valley are in this line it is impossible to say. The industry here, as elsewhere, is considered an experiment, and the trees are still too young to bear their earliest. Some two thousand acres have been planted in orchards within the past two years. The soil seems splendidly adapted to rapid growth. The finest development the writer has seen anywhere was in the young orchard of Mr. G. W. Woodbury, of Guinda. This gentleman has about 30 acres set to apricots, peaches and almonds. The trees are but yearlings, yet they have a stock in nearly all instances of two inches and over, a corresponding height, and heavy foliage. This extraordinary growth is owing to the rich character of the soil. It is the heavy sediment bordering Cache Creek. Mr. Woodbury claims to have discovered a black scale pest preying upon his potato vines and other vegetables that has not hitherto been seen in the valley.

Five miles below Guinda and ten above Capay is the Tancred Colony, composed of 500 acres or more of young orchard and vineyard. Here all is owned and worked on the cooperative plan. All property owners in the colouy are shareholders in the company. Those who have holdings but live in the city or elsewhere pay certain fixed assessments to have their properties worked. Those who live in the colony and cannot secure a living at present on their own small place work on the other lands of the colony and are paid from the funds provided for such purposes. E. W. Hammon is superintendent.

Many other orchardists of the valley might be mentioned, as Messrs. Sprouhl and Sharpe of S. F., who have a young orchard and vineyard near Guinda under the charge of G. W. Kneeland. Samuel Allen has a fine almond orchard near Tancred.

YOLO CITY

Is another locality that promises to become a prominent fruit center, as several orchards have been set out within the past two or three years. The most extensive of these is the Yolo Orchard, as it is called, which is owned by a Woodland syndicate and comprises two hundred or more acres. E. C. Zane is superintendent. Among others who have gone into the business on a less ambitious but still promising scale are Messrs. W. T. Akers, O. Plantz and W. F. Hayden.

W. J. Reid of Dunnigan has set out several small orchards and vineyards, which give promise of success. However, all who are now rushing into the business consider it but a speculation, or at best an experiment, and occasionally one meets a grower, long in the business, who has had enough, and pronounces fruit-raising a losing proposition. They give two reasons—rates of transportation and commission men. As an old gentleman remarked a few days ago, "There is only one thing possibly worse than these, and that's the grasshopper. He takes everything, and offers no apology either."

Woodland and Danville will ship considerable quantities of fruit, though more in the dried state than heretofore, as the profit on this class is generally better than on fresh fruit. The fruit crop here, however, as everywhere, is light, and the only hope many of the growers have, is better prices than have ruled the past season.

Mrs. G. G. Briggs, who has large vineyards at Woodland and Davisville, is one who does not take an optimistic view of the fruit situation. On 63,000 boxes of raisins shipped last year, she lost on every box. There are many other producers who still have their last season's crop awaiting a market.

GENERAL FARMING.

Harvesting is in general progress throughout the county. In some places, as about Danville, the farmers were through a week ago, while in other parts, particularly on the tule, the grain has not ripened sufficiently.

The prospects of a generally large crop are good. There were fears of continued north winds, but the grain has met with no serious drawback. In many places on the high lands wheat will run as high as 15 or 16 sacks to the acre. The farmers, however, are but little more encouraged than the fruit men. Many are contracting their wheat now at $1.30—equivalent to $1.40 delivered at Port Costa—fearing even lower prices later in the season.

Those who have tule lands are the most jubilant, for promises of a tremendous crop are now assured. This is the first year in four that floods have not covered these rich lands and either prevented the planting of the grain or destroyed the crop just as it was ready for harvest. "Reclamation district 108" extends from Knight's Landing north a distance of 30 miles and comprises 68,000 acres. With the exception of two 80-acre plots on the border, every foot is in wheat, which will yield from 10 to 30 sacks to the acre, and the average, according to good authority, at least 15 sacks.

Harvesting will begin this week on many of the great farms. There are nine harvesters at work on the Curtis place alone. With such possibilities, there is no surprise that the owners of these lands should consider feasible a $750,000 canal to intercept the foothill waters that have prevented crops in past seasons. It is intended to run this canal along the west border of the tule. It will be over 30 miles in length, 600 feet wide, and have a mean depth of eight feet. Surveyors are at present running preliminary lines. When these tule-land farmers consider they have lost sufficient in the past three years to build six such canals, and, as it is, seem only assured of one crop in four, they may well take half their present crop and put it into the project. There seems general unanimity regarding the scheme and strong hopes that it will be a success.

C. E. T.

Killing Morning-Glory.

SATICOY, VENTURA CO., June 28, 1892.

TO THE EDITOR.—The article quoted in your last issue from a Hueneme correspondent on the subject of killing morning-glory is the first practical treatise I have seen concerning this dreaded pest and its extinction. The question seems to be generally avoided by correspondents presumably because they fear a discussion thereon would unpleasantly advertise their localities. As the pest is quite widely distributed throughout the State, this is certainly a mistaken sentiment. If people do nothing and say nothing concerning this formidable trespasser, fearing to detract from the value of their property, it will not be long before their fair lands will have little value to sustain.

Endorsing all that the Hueneme correspondent has said, it seems to me he neglects one phase of the subject. There is, doubtless, no question as to the efficacy of constant cultivation or "smothering" as a means of extermination, and on patches not exceeding a few acres in extent, the plan may be practical, but in fields of several hundred acres, where almost each individual acre is infested with varying degrees of hopelessness, the expense of such cultivation and more especially the loss entailed by two or three years idleness of the land, places the remedy out of the reach of any but millionaires. Even should the plan be followed, the expense and loss mentioned would place a value on the land entirely out of proportion to its real worth for raising any ordinary crop after the pest is eradicated.

Many people in this vicinity have adopted the following system, which is entirely practical, subjects the owner to no loss, removes the pest, and doubles or quadruples the actual value of the soil. The land is set out to fruit trees (preferably English walnuts, as they are planted far apart and give plenty of room for work) and beans or other hoed crops are raised between the trees until the latter are bearing profitably. Hoed crops do reasonably well, even in thick patches of morning-glory, necessitating only thorough cultivating and hoeing every few weeks until the crop is harvested, which, in the case of beans, is about three months from the time of planting. Very thick patches can be kept cultivated clean with a weed knife to avoid the trouble and expense of hoeing, and still not interfere with the crop as a whole. This summer cultivation and the shade of the bean vines seem to recompense for the draft made upon the moisture, and if the ground surrounding the trees for several feet be kept clean, the latter need not suffer materially. The number of bean rows between the trees is diminished year by year as the trees become larger. The number of crops raised this way depends, of course, upon the kind of fruit, apricots, apples, etc., bearing much earlier than walnuts.

Now, when the trees are bearing profitably, the "smothering" process can begin and continue, with no attending loss, until the pest is eradicated, the repeated cultivations being alike a boon to the trees and destruction to the morning-glory. When this desired condition has been reached, the owner will have a property which, however skeptical he may be concerning the profit of fruit culture, will be vastly higher in the market than his unimproved land, even if he had no morning-glory to contend with. Judicious interculture is quite generally followed, in this vicinity, to tide over the first few years until the orchard will pay its way, and the trees do not suffer perceptibly as a consequence. An exception would have to be made in the case of grains, which, not admitting of summer cultivation, dry out the soil to the detriment of the trees. I have never, however, seen such a practice followed.

Now, there has been no break in the receipts from the land, and the morning-glory is killed, when, if the owner should imagine that other crops would pay better than his orchard, he can dig it out (the wood paying for the cost of clearing) and still be far ahead in the operation. His land will be clean and greatly strengthened by the change, when, if he had done nothing, the pest would be growing each year more formidable.

But in the favored land of California, who will say that fruit is less profitable than any agricultural staple, and if the obnoxious morning-glory will thus add to the acreage of orchards, may it not, after all, like most of our afflictions, prove a blessing in disguise? H. F. CLARK.

World's Fair Notes.

The Kern County World's Fair Association has appointed a board of lady managers for the county.

An effort is being made to prepare a facsimile of the San Luis Rey Mission, which is the finest and most extensive one in southern California, to be set up at Chicago.

On June 14th, the Humboldt County World's Fair Association was formed at Rohnerville. A. P. Campton was elected president, and D. E. Gordan secretary, both of Rohnerville.

C. M. Wells, president of the Los Angeles County World's Fair Association, is quoted as saying that the women of that county are taking more interest in World's Fair work than men, outside of the Executive Committee.

On June 11th, a meeting of the Shasta County World's Fair Association was held at Yuba City, and an Executive Committee of seven members was elected. Glass jars of different shapes and sizes, to the number of 240 were ordered.

The Santa Rosa School, at De Luz, San Diego county, has prepared 50 beautiful specimens of wild flowers and ferns, neatly mounted on white cardboard. Committees have been organized among the children to continue the collection during the summer.

The Fresno County World's Fair Association reports that good success is following efforts to obtain excellent samples of wheat, barley, rye and oats for a World's Fair exhibit. The association will be ready to begin on fruit and other products in due season.

On June 20th, the supervisors of Orange county decided, for the present, to appropriate one-ninth as much money as Los Angeles county will appropriate for a World's Fair exhibit. As the latter county will appropriate $40,000, the appropriation by Orange county will therefore be about $4500.

The Alameda County World's Fair Association is having prepared an illustrated album of Alameda County, to be used at the Exposition next year to assist in advertising the resources of the county. The printed matter accompanying the album will be both descriptive and statistical.

R. H. Young, secretary of the San Diego County World's Fair Association, has forwarded to the State Commission for indorsement, applications from 37 different residents of San Diego county for a total of 4820 square feet of exhibiting space in the different department buildings at Chicago.

A public spirited resident of Siskiyou County has sent a communication to the Yreka *Telegram*, stating that as the California Commission has decided to maintain a restaurant and cafe in the State Building at Chicago, Siskiyou County should endeavor to furnish therefor butter, ham, bacon, eggs, etc., to show the superiority of the county's products in that line.

A design submitted by Miss Rose Brier of Oakland, Cal., for a panel for the Woman's Building at Chicago, has been approved by the National Board of Lady Managers, and Miss Brier has been given an order to execute the work. The panel is of conventional design on the Italian Renaissance style, of which the Eschscholtzia, or California poppy is the central figure.

The Home Circle.

In the Orchard.

Lazy, languid shadows stretch across the orchard grass,
And warm and blushing snowflakes drift downward as I pass;
The robins whistle blithely, white butterflies float by;
One fleecy cloud has lost its way in the soft blue of the sky—
And the spring is in my thought.

Light streams down through pale green leaves that whisper in the breeze;
Deep in the heart of blossoms lurk drowsy, droning bees;
The willows bend down slender leaves and dip them in the stream;
The day floats by on fragrant wings like a sunny, golden dream—
And the spring is in my heart.

Happy birds through languorous air now tell their secrets sweet;
Clover leaves and tender grass are thick beneath my feet;
Sunshine lights my baby's hair as at my side he stands,
His treasure trove of dandelions in tiny, tight shut hand—
And the spring is in my life!

—Virginia Franklyn in Harper's Bazar.

A Summer Love.

Written for the Rural Press by Kate Masters.

A foggy morning at Santa Cruz. The sea looks oily and calm; the fishermen's boats tied to, or anchored near the wharf, scarcely move on the tranquil waters, and the pelicans on the island rock near Phelan park ruffle up their feathers and try to think it is winter.

An hour later the fog has lifted and lies like a white curtain half way across the now sparkling waters of the bay. The beach begins to look like business; that is, the children and nurses are arriving. The children, happy and wild as colts; barelegged, sunburned and happy. Some in laces and finery playing with little strangers in cotton, while the French (?) nurses gossip and chat with each other to the perfect satisfaction of their charges.

In another hour the swells have arrived and the idlers are watching for the rival belles and beaux to take their morning swim.

Among the gayly dressed ladies on the wide porch of the bathhouse a young girl appears. She seems quite alone, and walks to the top of the steps and looks out at the water as if to judge if it is tempting enough for a swim.

She is slight, tall and very pretty, and has a quiet sort of dignity particularly noticeable among the noisy, chattering girls around her.

As she turns to go into the bathhouse she takes one glance around the sands. Her blue eyes show surprise for a moment. The expressive face is full of pain, as the dark lashes sweep down over her eyes as if to hide what she could not bear to see.

"He said he did not know her," she is thinking.

Her glance again strays to where a young man is laughing and talking to a very handsome woman. More than handsome, and he, too, is good to look upon, with curly hair, clear-cut features and the bold, blue eyes that women adore. He is probably twenty-six or seven years of age, while the beauty by his side is perhaps older.

They are only flirting. What else can it be? They have only known each other since the night before.

He turns and sees the girl he really loves and his first impulse is to excuse himself and go to her, but then he thinks, why should he not devote just one morning to the belle of the beach? He feels certain she is quite taken with him already and so he stays, and Helen looking straight at him a moment, smiles scornfully, then goes to get ready for her swim with a sad and bitter heart.

They are not engaged, these two. He hasn't even made love to her. In fact, she is the only girl he knows that he hasn't flirted with. Why? Because he loves her, he is afraid of her, afraid those blue eyes will flash in scorn, or, worse still, in laughter, instead of the soft, trustful glances she gives him now.

Many admire the graceful figure as she plunges into the breakers, and none more than Frank Saunders' companion, who knows full well that he has been her devoted slave, but now—why, he is her own, of course; he pleases her and that is enough.

That evening he meets Helen riding on Pacific avenue. She colors, but does not smile, only bows slightly. He feels hurt and tries to think she is rude, but knows in his heart he has offended her and how.

For a week he does not see her at the beach, but enjoys himself in a way with the gay people at the hotel. One day a gay young matron invites him to a picnic at the Big Trees, promising him a jolly time. "And Mrs. Montgomery is going, too." Mrs. Montgomery is the lovely widow whom Frank is already supposed to be madly in love with, and not a few whisper that the widow is more than pleased with him.

The next morning, at 11 o'clock, a three-seated carriage, drawn by four prancing grays, leaves the hotel and is soon whirling along the wild mountain road to the Big Trees. Even Frank's frivolous soul is impressed with the grandeur of the scenery. The murmuring waters of the San Lorenzo, so far below; the gray rocks and the railroad above, and, finally, the great redwoods, towering to meet the sky.

After they have had their lunch and are lounging about, a young lady on horseback and a gentleman of tender years, in fact, only ten, gallop in the grove. The girl is Helen. She looks very pretty on horseback and rides with the easy grace of a horsewoman.

Some one notices her and says, "You know who that is, don't you, Mr. Saunders?" with an arch look. Frank colors slightly and looks annoyed.

It soon appears that the hostess, who is a great friend of Helen's, had asked her to come, as she did not like Mrs. Montgomery and saw pretty well how things were going.

At first her little scheme seems to have no effect, as they hardly notice each other. Frank still devotes himself to Mrs. Montgomery, while another young fellow of the party starts a mild flirtation with Helen. But, after a time, this rouses Frank and he manages, as they are all strolling about the grove, to get a few words with her.

"Helen, what is the matter with you? Are you angry with me?" he says.

"With you! Why should I be angry?" But she does not look at him.

"But you are changed," protests Frank. "If I have vexed you, I think you might forgive me to-day, when I have not seen you for so long, won't you?"

She says, "I have nothing to forgive," yet looks into his face with the old look that makes his heart leap.

"I will hope that you will grant me more; will you meet me this evening?"

She murmurs "Yes," and soon they separate.

It is a pet evening. Moonlight floods the bay and the breakers glint and glisten, their foamy crests almost ghastly in their unnatural whiteness. But it is not on the beach Frank meets his sweetheart. Out on the cliffs, where the waves dash and roar continually, instead of breaking in placid monotony on the sands, he meets her. She is walking with her huge friend and almost constant companion, a dog named "Victor."

Helen is the only daughter of an old gentleman in moderate circumstances. Fond and proud of his daughter, whose mother had died when she was a little childd, but yet selfish and pleasure-seeking, he lets her have full liberty to find her own amusements. Had she been a different sort of a girl, it is hard to tell what troubles her independent spirit and perfect liberty of action might have got her into. As it is, her quiet dignity and perfect frankness with every one save her from the slightest breath of scandal.

When they meet, these two, this summer evening, they only look in each other's eyes, and the old story of love is told and answered in their mute language. They turn and walk back—back in the direction she has come. His arm steals round her waist and he tells her all his love. But she—how can she begin to tell him all the devotion of that brave young heart? Only the light in her soft dark eyes can tell, and he is not the man to read them. If he could, what trouble might have been saved for both of them.

Three happy weeks have passed and they have been together every day. They have arranged to get married the next spring. To-day he has returned to the city, and Helen is left to dream over the past and look forward to the future.

The autumn has come. The breakers are treacherous; sometimes mere ripples, the next minute mountains high. October heat has ripened the grapes on the mountain sides, the dust is deep, the fogs of the summer months have melted, and only the smoke from the forest fires darken the bluest of skies. Yet to-day the sea is angry indeed. Now and then there is a few minutes calm, and some timid bathers venture to don their bathing-suits, only to come out and find the breakers worse than ever; but for very shame they find they must at least get wet, and timidly advance to meet the foe, who coolly doubles them heels over head and rolls them up the sand, to the very feet of the laughing spectators.

Mrs. Montgomery is a swimmer, but a decidedly amateur one. She has not been in long before she finds that the breakers are too much for her. She tries for the raft, but soon feels she cannot reach it. She turns to come back. A mighty mountain of green water lifts her higher and higher, then suddenly drops her, and presently the undertow is rushing her, as she thinks, far out to sea. She is a brave woman, but, in her exhausted condition, she loses her self-control. She stops swimming and tries to call for help just as another great wave rushes over her head.

Helen has just come into the water. She dives through two green walls of water, and, as she opens her eyes the second time, she notices the red cap of a lady farther out, floating on the water, while the lady herself has disappeared. Then she sees her rise to the surface on the crest of the next wave. She calls on her big dog, who is swimming beside her, and together they go to the rescue. She knows there is a swimming teacher on the beach, but he cannot get there in time. She grasps the helpless woman on one side, while her brave dog catches the other, and they manage to keep her head out of the water. Then comes an awful struggle between them, as the poor woman tries to strangle them both; but Helen has had experience, and keeps well behind those clutching arms. But, even when she becomes quieter, it is hard to keep her up. At last the swimming teacher reaches them, and Helen swims off to the raft as if nothing had happened.

When Mrs. Montgomery recovers sufficiently to understand who her rescuer is, she insists on seeing her. She is quite affected when she does; insists on her accepting a handsome bracelet she wears, and says she must only mention anything she wants and it will be hers. But Helen only smiles and says: "All I wish from you is your friendship, for you are a very brave woman. As for me, I only did what I would have done for any one and am very glad I was able to do for you."

Some time after this, Helen gets a letter from Frank, who has not written for at least a month. He writes:

My Dear Helen:—When you get this, my mother will be in Santa Cruz. She is very anxious to see you, so I hope you will call on her as soon as you can, as she is not going to stay long.

Then a few more lines and the letter closes. Helen feels there is something wrong.

"So you are the fair Helen of whom I have heard so much!" says Mrs. Saunders when she meets her. She is a tall, dark-eyed, hard-mouthed woman; not at all like her son.

After a few minutes ordinary conversation she says, "Well, dear, what I really wanted to see you about was Frank. I am so pleased to find you such a nice, sensible girl, for really, you know, I didn't expect it. Frank, you see, came home really quite mad about you, and was so very serious about it; but you, I know, will understand and sympathize with me when I tell you he is my only son and—well, you see he has to support us both, and really it is out of the question for him to marry at present; unless, of course, he could marry money, which I have reason to think he could, if it were not for the fact that he feels bound in honor to keep some sort of promise to you."

Helen's face throughout this speech gets whiter and whiter. Then at last her cheeks flame.

This, then, is her sweetheart's mother cooly insulting her with smiling lips.

She says, "Did your son send you down here to say this to me?"

"Well, no! Not exactly. You see the poor boy is quite upset and worried about it, but I told him you would not consider it anything but a summer flirtation."

Helen draws off her glove. I do not *say* he made any promise," she says, "but there is the ring he put on my finger, and I shall keep it there till he himself asks for it, or—" faltering, "till he is married to money. *Then* I will give it to him."

Then she leaves the room. Neither of these women ever see each other again.

Weeks pass. Helen will not write for a long time, hoping he will write first; but at length she can bear it no longer, and writes, telling him what his mother has said, and asking if he really wants to break the engagement to tell her so. "But," she adds, "I can hardly believe I have given my heart to the wrong man, and that yours was only a summer love."

He does not answer her, and the strong young heart is half broken with the pain of suspicion. Then one day she sees in the paper the announcement of his marriage to Mrs. Montgomery. Then, God help her! Gone is her faith in men. The soft, kind mouth hardens, but who shall say her heart is broken. Not her friends, who find her far brighter and wittier than before, and one honest fellow's heart is filled with hope. Only her faithful dog has heard a complaint from her, or seen her bleeding heart. Once only, and then she had cried, "God forgive him! He did not know how I loved him, or surely he would not have done this cruel, cruel thing," and buried her face in his shaggy coat.

A bright, warm day in January. The tide is far out, and the hard, wide sands are a tempting place for a gallop.

Two people are strolling along; a lady and gentleman; both handsome and happy looking. She says, "Now, Frank, aren't you glad we came here? What could be more lovelier than this?"

He does not answer. Down the beach he sees a slight, swaying figure on a bright, sorrel horse, which seems mad with terror at the waves, at the shining sand, at the horse car and everything. Rearing, plunging, foam-flecked he comes toward them, his rider cool and firm, half-smiling at his mad antics. It is Helen. She is within a few yards of them, when suddenly her eyes meet Frank's. She turns deathly white. The horse, feeling the firm hold on his bit relax, leaps wildly forward, and she, forgetting herself, gives a cruel jerk at the Spanish bit.

Mad with pain, the sorrel rears up, up, till he falls over backward; over till the girl is crushed beneath him. Then he struggles to his feet and kicks at his helpless rider as she tries to rise.

Frank's heart turns sick as he hears the iron hoof strike her breast. His wife screams, but there is no sound from the motionless form lying on the sand. When they try to raise her, she opens her eyes and says, "Please don't move me. It hurts so. It will soon be over."

There is a thin stream of blood trickling from her mouth. Frank knows she is dying. She moans, "It was not the horse's fault. Mine! All mine." Then, very faintly, "Frank, pull off my glove." Wondering he does so. "Take off the ring." He shakes his head. "Yes, please." "Not now, Helen! I can't indeed."

With great effort she draws off the little golden circle, which meant so much to her, and so little to him; and hands it to Mrs. Saunders and says, "Take it! He gave it to me because—because he thought—he would marry me—but now—!"

"Frank, is this true?" cries his wife. "You told me there was no engagement; and she saved my life, and this is the way I have repaid her. Oh, you men! Will you never cease this cruel sport of breaking women's hearts!"

The dying girl lays her hand tenderly on Frank's bowed head and smiles bravely her old sweet smile. "He did not know or understand how I loved him. But I am not sorry I loved him so, because I am going away. Then she turns to look at her poor dog, who is lying with his great head on her arm, watching her face with sad brown eyes. Blue eyes dim with the shadow of death look into his. She smiles her last brave smile. "Good bye, old fellow," she whispers, "We will meet again, never fear."

Frank, whose face is buried in his hands, hears the dog give one piteous cry. He cries "Helen forgive me!" But his summer love is dead.

Name-Sickness a Common Complaint among Brides.

"It's an old trick of the trade with the novelists to tell how young women when in love never fail at a certain juncture to double lock their room doors, and with many flushes and heart-beatings write down their Christian name coupled with the surname of the man whom they have promised or hope to marry," commented a young married woman lately wedded to a fine man of her choice, says the *Illustrated American*

"I suppose it is the way with many sentimental girls, though I never did it myself; instead, I underwent a very different emotion, of which I don't think men have any comprehension, but which I find is not peculiar in my case. I mean grief of having to give up one's maiden name.

"All the time I was engaged I never took any thought for the day on which I was to drop my own nice surname and title, for which I had such a deep affection, and be addressed by my family, my friends, and people to whom I was introduced by an entirely different one.

"For the first week after my marriage even, I scarcely noticed the change, but one day there suddenly came over me a curious little lonesome feeling. It seemed so chilly and formal, so unlike myself, to be addressed as 'Mrs.' at every hand, and never to hear my own dear original name.

"The more I thought over the matter, the

more despairing I became. Never, never could I hear the old familiar "Miss" when anybody spoke to me.

"Thereupon I actually locked myself in my room, and wept so long and bitterly from pure name sickness that my husband besought me tearfully through the key-hole to tell him what was wrong.

"He was very much hurt when I first explained the cause of my grief, but when I brought him to a realization of my loss, he grew sympathetic, and do you know, for a long time he called me by my maiden name. That wore off with the honeymoon, however, but even to this day I think sadly of my lost name."

The Summer Boarder.

The business of keeping "summer boarders" has grown wonderfully for the past decade among the farmers of the country. We have always had our summer resorts—our Saratoga, Cape May, Thousand Islands, White Mountains, Lake George and kindred places—but to sojourn at them was too expensive for persons of moderate incomes. The great masses of the people who dwell in cities were shut up for the summer because they could not afford to pay the prices demanded at these noted resorts. The farmer then stepped into the breach. He found that he had something to sell which thousands wanted to buy, viz., entertainment in a country home at a price so moderate that thousands could avail themselves of it, and yet sufficient to pay a good profit to the farmer.

To-day the number of boarders who thus recreate in farmhouses and small country towns far exceeds the number patronizing the more famous and more expensive resorts. The thousands who are engaged in a small mercantile way, the great army of doctors and lawyers whose professional fame has not yet given them large incomes, the newspaper workers—most of such are patrons of the farmers. The wives and children are sent out for the season, generally from the middle of June to well along in August. The head of the family spends a brief vacation with them, but business calls him back, and he is obliged, for the bulk of the time, to content himself with a run into the country on Saturday, returning on Monday to his work.

The prices paid cover quite a wide range, depending, of course, on the accommodations. *The Rural* has heard of families being boarded in a farmhouse at the very low rate of $4 per week for each member. This, however, is very unusual. Prices generally range among farmers from $5 to $8 per week. At these modest figures there would be small profit to a denizen of the town. But it pays the farmer better. He converts his butter, milk, eggs, poultry, fruits and vegetables into cash, without the intervention of two or three middlemen. In other words, he realizes the highest retail prices for all the products of his farm consumed by boarders, even at the modest figures named, and in this fact lies the explanation of his profits at such seemingly low rates. It is estimated by careful judges that summer boarders pay more money to the farmers of Sullivan Co., N. Y., than would be realized by the sale of the entire agricultural products of the county in the open markets, and what is true of this county is doubtless true of many others.

By common consent, Decoration Day, May 30th, seems to be the time when thousands run into the country for the purpose of looking up a place where their families can be comfortably domiciled for the summer. The trains leaving the city on the eve of that day are generally crowded to the greatest degree. The railways contribute to this hegira by offering special rates, and stimulate the business by "summer home" pamphlets for distribution, in which the attractions of the points along their lines are glowingly set forth. Soon afterward, the families begin to go out, and before July 1st the number is at its greatest height.

A few points are essential to success in this business. Good beds, well-ventilated rooms, perfect cleanliness and a generous table. The bill-of-fare need not be so varied—it is wasted energy to attempt to rival the more pretentious hotels in this matter. There can be ample variety with but a limited number of dishes, by changing them at every meal. Abundance of milk, fresh vegetables, well cooked, with the fruit, eggs, and poultry at every farmer's command, are the staples of a diet which will always please.

The thoughtful farmer will see that lounging accommodations are at hand. Hammocks swung in the shade, armchairs on cool piazzas, swings for the young folks, and if a stream or lake is available, arrangements for bathing add greatly to the attractions of a summer home.

The average city boarder, who is spending his first summer in the country, is a source of much amusement to the farmers' family. His ignorance of everything rural is laughable in the extreme—quite as much so as would be that of a farmer who should be making his first visit to the metropolis. But he picks up a little knowledge, bit by bit. He finds out that buttermilk is the product of the churn and not of a special breed of cows, and the younger members of the family very quickly find out when the harvest apples are ripe. They achieve numerous colics in experimenting in this direction, but they always persevere. The young ladies find out where the most delightful walks are to be had, and, strange to say, the young men are equally alert in securing this information. In short, it is a delightful period for the city folks—a succession of halcyon days. Let us hope that the farmer will get a substantial benefit from the business, and yet make his home so attractive that all will want to come again.—Rural New Yorker.

A Great Pie Company.

The New York Pie Company has a small, unpretentious room in which pies are retailed by a rosy-cheeked and robust woman, and a plain archway at its side, through which the wagons of the company drive to the interior. That is visible from the street, but gives one no adequate idea of the size of the business which is carried on. Inside we find an area or court, filled with wagons, taking on their loads of pies or discharging their return loads of tins. There are a dozen ovens here, and offices, rooms for the manufacture of mincemeat, one for the preparation of fruit, and another where the dough is manufactured—in short, it is a very busy place. It consumes every day, except Sunday, 20 barrels of flour, 1200 quarts of milk, about 8000 eggs, 3000 pounds of lard, about 4000 pounds of sugar, 20 barrels of apples and other fruits in season and out. A very large number of employees are engaged, most of them going to work at 3 A. M., and leaving at 3 P. M. The pies are all delivered before or by noon—there is no demand for them later in the day. There are 40 wagons, in all, engaged in this work of delivery in New York, Brooklyn, Jersey City and Newark.

Twenty thousand pies are turned out daily, and the apple pie leads the year round, though mince is a good second about the holiday season. Five sizes of pies are made, known to the trade as "home-made," the twelve-inch, nine-inch, seven-inch and "buttons." The varieties on the list are apple, mince, peach, plum, lemon, cranberry, pumpkin, custard, cocoanut, rhubarb, pineapple, strawberry, currant, gooseberry, huckleberry, blackberry and cherry. Others are made at times, but these are the staples which are found on the lunch counters, and in the hotels and restaurants all over the city. The smallest pie is sold at wholesale at 4 cents, the next at 7, then 14, 20, 35 and 45 cents. Only the best material is used—no rancid or adulterated lard is wanted, and the most critical examination by nose and palate failed to find anything wrong. "They are made," said the president, "just as our grandmothers made them 50 years ago, only on a larger scale."

"How long has this company been organized?" said the visitor.

"For 21 years. I have been in the business all my life—started with my entire stock in a basket—you see what it has grown to."

It is a very ably managed institution and has a branch in Philadelphia, which is also doing a thriving, though smaller business.

A Unique Individuality.

A striking instance of feminine individuality was that of Miss Midy Morgan, a woman who was a marked and unique figure in New York, and who for 23 years had been in the service of the *Times* as stock and cattle reporter. Her history is a curious one. Maria—known as "Midy" Morgan, was born in Ireland in 1828. She received a good education, and in 1865, with her younger sister Jane, she went to Rome, where her sister wished to study art. Here she met Miss Charlotte Cushman and Miss Stebbins, both of whom became her warm friends. Miss Morgan had always loved animals, and King Victor Emmanuel, discovering her judgment of them, commissioned her to go to Ireland and purchase a number of horses for him, a commission in which she was so successful that he presented her with a watch, bearing his initials and a diamond pendent. In 1869 she came to New York, and has since served the *Times* as its live stock reporter, and she was also the station agent at Robinvale, N. J. She was a familiar figure on Newspaper row in New York. Over six feet in height, wearing a short gown of serge, with stout boots and a bonnet to defy wind or storm,—this odd exterior yet held such sterling qualities of head and heart that she commanded universal respect. She leaves to the metropolitan museum in New York the watch presented by the King of Italy, and a number of valuable and curious Florentine mosaics and cameos. This seems to be an age in which woman lives out her individuality, and does that which she was born to do. The *Times* says editorially of her: "It is fitting to record here the most cordial and grateful acknowledgement of her probity, her unfaltering fidelity, and the constancy with which the least of her daily duties was always performed. Nor can her companions in the office forget her kindliness of nature, the courtesy of her demeanor toward all, the native refinement and womanly grace of her character, and the patience and fortitude with which she bore the fatigues and difficulties of a calling that might well have taxed the strength of a man." This tribute is full of significance.

YOUNG FOLKS' COLUMN.

John Martin's Revenge.

In the cool of the morning John Martin kissed his wife and two little ones by-by at the door of their humble home, half frame, half dugout, took his team and went over the roll of the prairie to work at his plowing, about half a mile from the house.

As he paused on the top of the roll before going from sight, he called back to his wife:

"Mary, let George come to me at noon with a lunch and fresh drink of butter-milk. It's so far that I don't think I'll come home to dinner."

The team started, and chattering cheerfully to them for company's sake they went on to their work.

The sun climbed higher, and furrow after furrow was turned. John kept the team going steadily, but Fan was restive and would throw her head up and look around and then throw herself into the collar, and forge ahead as though suddenly anxious to get the work finished.

"What does ail you, Fan? You seem daft," said John finally; "does your harness hurt you, old girl?"

And then he went over the harness, carefully examining each strap and piece where it touched her sleek coat.

He went back between the handles of the plough, and Fan threw her nose up over her mate's neck, looking in the direction of the house, and whinned so shrill and mournful, that John involuntarily looked in the same direction.

He started.

Were his eyes deceiving him!

Was that a thin column of smoke rising in the clear air from over the roll in the prairie?

His heart almost stopped beating.

It is smoke!

Fast as his fingers could move he undid the harness fastenings from the team, threw the harness to the ground, released one horse and sprang upon Fan's back. She needed no urging or directing, but leaped like an arrow from the bow.

As they gained the summit of the rise of ground, John looked, and had to clutch the horse's mane to keep from falling. A thin blue column of smoke was rising from the ground where his home had stood, and as he cast an agonized look over the plain for some sign of life, he saw away off on the distant horizon a few rapidly diminishing specks and a little cloud of dust.

No use to urge the creature, she seemed to share his fear, and was doing the best that flesh and blood could do.

At the little bed of hot ashes she stopped and he rolled from her back. For a few seconds he could not see, and his limbs trembled so that he could not walk. He knew what sight would meet him. A few steps from him lay the body of his little boy Georgie, the one that was to bring his lunch and drink at noon.

He bent over and tenderly kissed the little dead face.

"Two more," he whispered to himself, "two more; where are they?"

They were not far away—the little girl, three years old, with long brown hair, and his wife—dead, and the scalping knife had done its work.

Side by side he laid the three, around whom all his hopes, all his ambitions, his love, was centered, now gone from him in a moment, it seemed.

As he turned away to look back again, he heard a light whinny come from the cattle yard, and he walked that way. There stood Fan over the body of her colt, whinnying pitifully and nudging it with her nose to induce it to get up.

"Your baby, too, Fan. Poor Fan! poor me!"

He stayed by his dead all day and night; then laid them gently in the grave he made them, pressing a last kiss upon the unresponsive lips of each. His task finished, he mounted Fan, and, drawing rein beside the mounds for a last look, raised his hand toward heaven and took oath:

"I swear before God, beside the graves of my dead, that so long as I have life, I shall hunt Apaches. They have robbed me of all, and my hate shall never be satisfied."

* * * * *

A couple of officers were enjoying their after-dinner smoke sitting in chairs tilted back against the shady side of the quartermaster's building

"Say, captain, have you noticed anything strange about these Apaches since we brought them back to the reservation?"

"Nothing special that I can think of. They're a grisly lot anyway. Why do you ask?"

"Because I've noticed now that they keep close to headquarters and don't go out in bands of two or three; and again, they're holding lots of pow-wows, and every day or so they bring in a dead buck."

"Oh, have you just found that out? Why, that's old to everybody but the reds, and with them it isn't allowed to get old. Ever since the Sandy Fork raid the Apaches have had a Nemesis after them. Who it is or how many, no one knows, but if a buck goes away from the crowd, it's ten to one he doesn't come back, and when they start out to find him, which they usually do, he has become a good Indian."

Just then a tall, gray-haired man, dressed as a scout, came past and changed the current of their conversation.

"Who is that chap?" asked the lieutenant of his brother officer, scanning the scout closely.

"I don't know," was the reply. "He comes to the post once in a while; gets a lot of stuff, mostly ammunition; never stays or stops to talk; always rides that same big bay mare."

The stranger dismounted at the door of the store and entered. He had scarcely passed out of sight when an Indian sneaked up cautiously and began to examine the horse, paying particular attention to her feet and her tracks.

"What do you suppose that buck's up to?" queried the captain.

"He's getting points so that he can trail the animal," was the reply.

"Look out! By gracious that was neat."

The exclamation was called forth by the action of the horse. The Indian, in his investigations, stooped and picked up her foot, presumably to examine the shoe. There was a quick move, a thud, and an Indian rolled over on the grass with a crushed skull.

Two or three white men ran up and the owner of the horse came out of the store. When he saw the dead brave, a smile lighted up his set face as he patted his horse's neck.

"Another one, eh? Fan, that's right; keep up the work, old girl. One more scratch on the rifle breech makes 181."—E. R. Collins in Texas Siftings.

ROYAL

BAKING POWDER

Absolutely Pure.

A cream of tartar baking powder. Highest of all in leavening strength.—*Latest U. S. Government Food Report.*

PATRONS OF HUSBANDRY.

The Secretary's Column.

By A. T. DEWEY, Secretary State Grange of California.

A new supply of rituals and National Grange Digest, of latest edition, has recently been received. Orders have also been sent for a small supply of "Grange Melodies." We have a few copies of the "National Grange Choir" on hand, also of "Glad Echoes," the songbook used mostly at the last State Grange.

Master E. W. Davis, in a recent note dated July 2d, has written some thoughts which I think all Patrons should read and try to answer soon and well:

"The work of the State Grange is already beginning to demand some time and thought from those who have the good of the Order at heart. "The spring campaign" has been a dignified and intelligent one. Good results are sure to come from it. It was aggressive enough to command respect, and dignified enough to hold the order on the high mental, moral, social and financial plateau to which it has won its way by 25 years of honest work. For my part, I am well pleased with the total results, and am fully convinced that many seeds are yet in the Grange farm that will germinate soon. Bro. Overhiser writes that he will probably be able to do some "field work" about the 1st of August.

Bro. Walton reports times very busy, but thinks that right away after harvest there will be some new Granges up there. I would much like to see our Order's banner floating in Yolo, Lake, Tehama, Humboldt, Fresno, Stanislaus, Kern, Napa, Los Angeles and San Diego Counties. Can we plant it there this summer? If so, in what way, by whom and at what expense?"

I. C. STEELE, P. M., writes from Pescadero that crops are fine in his locality. He expects to visit San Francisco on the 12th, and will then forward to Washington his quarterly report as Treasurer of the State Grange.

FROM NEBRASKA.—J. R. Cantlin, Secretary of the State Grange, writes from Webster, Neb., saying that the Patrons in that State desire to organize a life insurance association for the benefit of members, and desires us to send a copy of the "Patrons' Relief Association" constitution, and other publications relating to the organization, to which request we have liberally responded. Further, Brother Cantlin suggests that Wheatland, the P. O. address of his brother, D. L. C., who has lived there 30 years, would likely be a good Grange locality. Happy to inform Brother Cantlin that Wheatland Grange has recently been reorganized, and we hope that his brother will soon become our brother if he is not already within the Grange circle.

GRANGE HOME AND SCHOOL.—The Grange is like unto a well-regulated family home, where father, mother, sister and brothers sit down and exchange ideas and thoughts for their mutual benefit. The young boys and girls of the farm should be encouraged by all means to come to the Grange, and every opportunity should be given them, to advance them, to educate them, in order that they may be fitted and qualified for usefulness, honor and respect. The Grange is a good school for the young, and the older ones can be benefited by the teachings of the Grange. I would very much like to see every boy and girl who live on farms in this county all members of this or some other Grange, and it is my opinion the mission of the Grange will not be filled until that has been accomplished. —E. Greer before Sacramento Grange.

FOR SEPARATE COLLEGES.

The Legislative Committee of the National Grange has just issued an eight-page circular setting forth the different acts of Congress for appropriating means for establishing and maintaining Agricultural and Mechanical Colleges, Experiment Stations, etc., with a large amount of statistical facts and information of experience gained in this and foreign countries. It is prefaced with the following, offered by A. Messer and adopted by the National Grange, November, 1891:

WHEREAS, A large proportion of the agricultural colleges of this country are closely connected with classical institutions, with the funds and appropriations from the General Government paid into and disbursed from a common treasury of the combined institutions; and

Whereas, Owing to a variety of causes incident to such connection, the number of agricultural students in these combined institutions is reduced to a minimum, thereby rendering the munificent donations from the General Government for agricultural education practically worthless, so far as direct agricultural and industrial education is concerned; therefore

Resolved, That the National Grange respectfully ask Congress to pass a law requiring the different States, where combined classical and agricultural colleges exist, to separate the industrial from the classical departments and establish separate and distinct agricultura and mechanical colleges in other localities, with separate Boards of Trustees, directors, officers and teachers, that the true intent of the laws of Congress establishing agricultural colleges and experiment stations may be fully carried out, namely, the higher education of the rural population. And we further ask that all appropriations now paid to the combined institutions, and all unexpended funds heretofore appropriated by the Government for establishing and maintaining agricultural and mechanical colleges, shall be transferred to such separate and distinct agricultural and mechanical colleges as may be established in the several States.

Resolved, That the National Grange Legislative Committee be requested to bring these resolutions to the attention of members of Congress at its coming session.

The object of the circular is to awaken interest in the matter and urge the establishment of colleges devoted to agriculture, etc.

Copies will be mailed free to those applying to the Secretary of the State Grange.

Agricultural Fairs.

State Fairs.

STATE.	PLACE AND SEC'Y.	DATE.
Oregon	Salem, J. T. Gregg	Sept. 12-17
California	Sacramento, Edwin F. Smith	Sept. 5-17
Washington	Spokane	Sept. 19-24
Nevada	Reno, C. H. Stoddard	
Western Washington Industrial Exposition	Tacoma,	

District Fairs.

NO.	PLACE AND SEC'Y.	DATE
1	Oakland	Aug. 8-13
2	Stockton	
3	Chino, J. D. Sproul	
4	Petaluma, Dr. Thos. Macleay	
5	Santa Clara, George H. Bragg	Sept 26-Oct 1
6	Los Angeles	
7	Salinas City, J. J. Kelley	
8	Placerville, Thos. Fraser	Aug. 23-27
9	Rohnerville	
10	Yreka	
11	Sierraville, Fred Blinman	Oct, 3-7
12	Lakeport, H. A. McCraney	Sept. 27, Oct. 1
13	Marysville, G. R. Eckart	Aug. 28-Sept. 3
14	Santa Cruz, Oscar L. Gordon	
15	Bakersfield. J. J. Kelly	
16	San Luis Obispo, J. H. Barrett	
17	*....., I. J. Rolfe	Aug. 23-28
18	Independence, C. W. Craig	Sept. 27-30
19	Santa Barbara, H. B. Barstow	
20	Auburn, F. D. Adams	Aug. 30-Sept. 3
21	Fresno, J. M. Reuck	
22	Escondido, G. M. Dannals	Sept. 21-24
23	Concord, F. L. Loucks	
25	Napa, D. L. Hackett	
26	Ione, C. T. La Grave	Sept. 27-30
27	Redding, H. R. Hodson	
28	San Bernardino	
30	Red Bluff, H. R. Hook	
31	Hueneme, T. H. Merry	
32	Santa Ana, W. A. Beckett	Oct 3-7
33	Hollister, A. D. Shaw	Oct. 11-15
34	Susanville, C. E. Emerson	Sept. 3-7
35	Merced	
36	Vallejo	Aug. ..
37	Lompoc, W. I. Nichols	Sept. 27-30
	Glenn Co. Willows, W. V. Freeman	Aug. 9-13

*Stock exhibit and races will be at Glenbrook, and pavilion exhibit at Nevada City.

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A. T. FOSTER, Dixon,
Or, I. H. THOMAS & SON, Visalia.

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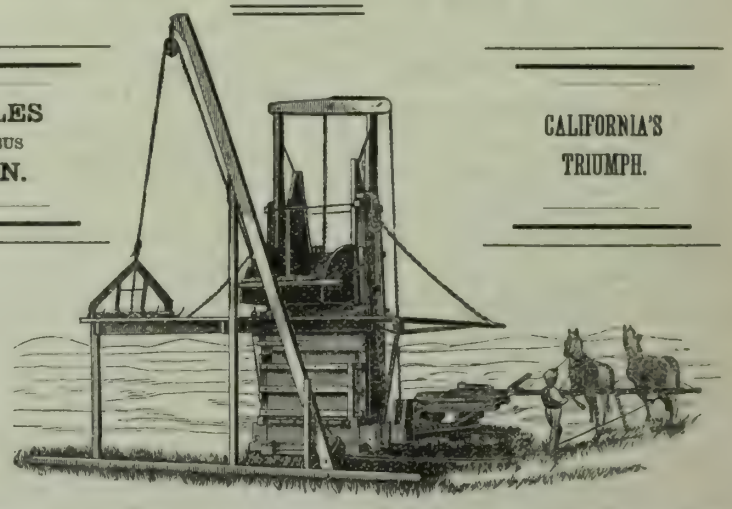

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Kern is the largest county in the San Joaquin Valley. It has the finest climate for curing and drying fruits, etc.

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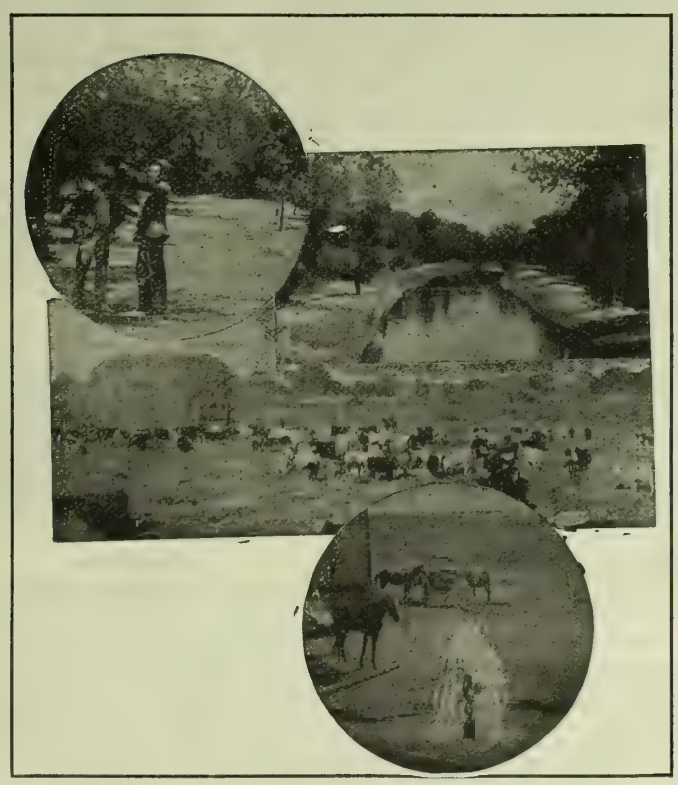
The home of the peach, French prune, pear and raisin grape.



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Land can be made to pay for itself in less than three years.

Grows more alfalfa than any other county in California.

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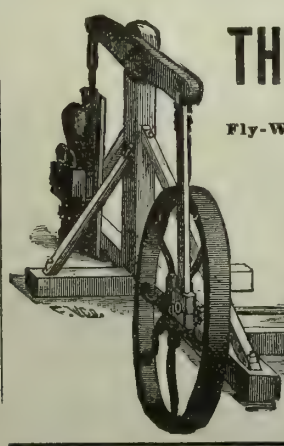

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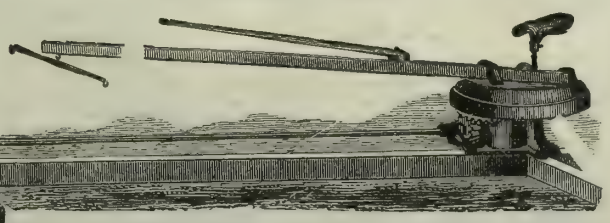

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AGRICULTURAL NOTES.

CALIFORNIA.

Contra Costa.

LARGE YIELD OF WHEAT.—Antioch *Ledger:* Harvesting is progressing rapidly. In the neighborhood of Brentwood and Byron, nearly half the grain is already harvested, and we hear the most encouraging reports from that section. Grain is turning out well, and in fact the yield is much better than the most sanguine expected. A yield of a ton to the acre is said to be a common thing, and we learn that in many instances a much larger yield is the result. Lo Welch, who farms in the immediate vicinity of Brentwood, is said to have harvested 2700 pounds to the acre. There is no use in talking, the Marsh Grant land is not only the natural soil for cereals, but the farmers of that section are about as good as can be found in the State. Such an immense yield of grain in a comparatively dry year is unprecedented, and speaks volumes for the industry and intelligence of the farmer and the quality of the soil.

Fresno.

THE WEST SIDE.—Selma *Enterprise:* The recent consummation of the deal by which the Sunset irrigation district has secured 3000 cubic feet of water and other concessions from Cheape and Perrin and the Sunset Canal Company, is the beginning of a stupendous enterprise that will require great engineering ability and a broad estimate of financial possibilities. The district comprises 300,000 acres of land fertilized by the fervid sunlight of eons of summers. It is proposed to build a reservoir covering 1490 acres to hold water for use during times of scarcity. The soil is said to be hundreds of feet in depth and of exhaustless fertility; the water abundant and the title perfect. The great west side is destined to be the arena where the full value of the Wright law is to be tested. If there is a region in the world where cooperative irrigation should be made a success, it is the west side.

PRACTICAL VIEWS ON A RAISIN COMBINE.—Cor. Fresno *Expositor*: There is probably not a grower in Fresno who does not wish that a combination might be made which will enable the growers to get 4½, 5 or 5½ cents a pound for their raisins. There is no disagreement as to what is desired, but there are some different views as to whether or by what means it may be attainable. In the first place, the growers should be reasonable. The price should not be arbitrarily set, without regard to the natural laws of trade. If so, it will fail. The price which growers must figure on must be based on the wholesale prices in the Eastern markets as they exist. Taking them as a basis, the prices which growers shall ask here should be proportionately lower. The growers should not calculate on causing the Eastern prices to advance, for that would be an uncertain thing to count on. * * * * The packer buys of the grower at 5 cents a pound. He pays 1 cent for packing, 1¼ cents for freight, and sells to the wholesale man at 7½ cents a pound. When the grapes have reached New York they have cost the packer 5 cents purchase price, 1 cent packing, 1¼ cents freight, equal 7¼ cents a pound. He sells them at 7½ cents. This is a profit of a quarter of a cent a pound, or $5 a ton, or $50 a car. If this is not considered enough he would have to buy of the grower for a little less. Let it be insisted again that these figures and prices are not given as the actual ones but merely as something near what may be found the true figures.

Mendocino.

WOOL SALE AT UKIAH.—*Democrat and Dispatch:* The Ukiah wool sale was held June 14th. Eight hundred and sixty-seven bales were sold. The general prices paid ranged from 19½ to 20½ cents per pound. A few choice lots from Willits brought 21 cents, and Baechtel Bros. of that place received 21¼ cents per pound for their exceptionally fine clip. The prices were lower than those of last spring, although the wool was finer.

Modoc.

RECLAIMING SAGEBRUSH LAND.—Adin *Argus:* What was a sagebrush plain a few years ago is now pretty thickly settled with people who are endeavoring to improve and cultivate their claims. Most of these people are unable to make extensive improvements, and are, therefore, compelled to labor under difficulties. Mr. Auble's farm is midway between Aidin and Bieber, and is composed of about 200 acres of swamp land and a large body of rolling sagebrush land. It is well under cultivation, and, with his stock, he uses and sells all that he can produce. Mr. Auble is an energetic and shrewd business man, and is becoming one of our most prosperous farmers. E. Kellogg's place, of about 300 acres, is rolling sagebrush land, most of which has been cleared and produces yearly a large crop of grain. He has a windmill which furnishes water for irrigating his garden. Windmills are the only water supply now afforded, and of course there is but little water furnished, compared to what could and ought to be used to make large crops. Grain is much in need of water now, and it will be a grand thing for such portions of Big valley when some irrigation system is established.

San Bernardino.

NEW ORCHARD ACREAGE.—Chino *Champion:* While the planting of orchards on the Chino ranch this season has been overshadowed by the magnitude of the beet industry, it has nevertheless been no inconsiderable item. Without any particular boom in the planting of orchard trees, a good healthy growth has taken place in the acreage set. All kinds of deciduous fruits especially, have made splendid progress, and this spring olives have taken the lead. The total acreage of trees on the Chino is now about as follows: Oranges 102, prunes 152, peaches 22, apricots 14, olives 54, walnuts 81, figs 56, pears 15, mixed 116—total 611.

SUGAR BEET NOTES.—*Champion:* On Tuesday, July 5, will commence the work of harvesting this year's beet crop on the Chino ranch. It is intended to have a good supply on hand at the factory on the following Monday, when it is hoped to commence working them up. There are 4000 acres of beets on the ranch this summer, of which about 500 acres are now ready for harvesting as soon as they can be reached. The rest of the fields will mature in succession during the next three months so as to keep the harvesting force and factory continuously at work. One of the grandest agricultural sights in California is these broad level fields of beets approaching maturity, perfectly clean and with good stands. The tonnage is going to be very satisfactory, and the quality of the beets so far as tested is extraordinarily high. Almost without exception the farmers on the ranch this year are feeling sanguine of the profits on beets. There are many fields that will yield 18 to 20 tons per acre, and the present indications are that the average percentage of sugar in the beets will not fall below 15, and may go to 18. That will give a crop that cannot be equalled for profit by any other farm product grown in one season. The industry is of the very first importance to Southern California, and will most certainly enrich the communities where it is introduced. Hundreds of men have had steady employment here since the first of the year, and through harvesting a large force will be needed, so that a man can have employment here practically the entire year. Many farmers are building up for themselves homes here who came in without any means to draw upon, and who have devoted their time almost entirely to beet growing. This year's crop will start many out on the road to independence.

San Luis Obispo.

HAY, GRAIN AND FRUIT NOTES.—S. L. O *Tribune*: The hay crop has all been secured in good order and is being placed in shape and condition for future use. Hay baling is progressing, and, by the looks of things, the crop will soon be blocked up. There are three hay presses now at work and another one is expected to come into the valley ere long. A few of the ranchers have started their headers, and by another week harvesting will be in full swing. The barley crop is about all harvested now and a few have started on their wheat crop. The fruit prospect for this season throughout the Creston country will be on the slim order. Late frosts and other climatic changes have had the tendency to despoil the trees of their fruits. The grape crop, however, is reported all right and bids fair for a good crop yield.

Sacramento.

HOP PEST.—Sacramento *News:* Hop growers on the American river yards are very much alarmed over the sudden appearance of myriads of red spiders on their vines. Some yards have already been seriously damaged, and it is believed that unless something is done to stop the ravages of the insect, many promising fields will be ruined. F. V. Flint regards the situation as serious, and advises spraying without delay. He brought specimens of vines infested by the pests. The leaves have the appearance of being burned. The spider inhabits the under side of the leaves and weaves a close web. The insect is well known in England, where it not infrequently injures and even destroys tons of hops.

RED SPIDER AND HOPS.—Sacramento *News*: Much uneasiness is felt among the local hop-growers on account of the reappearance of the red spider on the vines. The insect appeared about this time last year and caused much alarm, but no serious results followed. A few acres of vines were injured and some destroyed. The hop was more advanced than at the present time, and the injury was confined to the burrs, which were then just opening. It now appears that the spiders have been reinforced and have appeared in larger numbers and over a more extended territory. The American River districts are the only ones reported as infested so far, and active measures have been taken to destroy the pest. The yards of Brewer, Whittenbrock and Gerber Bros. have suffered most seriously, and they have already had spraying apparatus constructed and are showering the pestiferous spiders with solutions of sulphur, acid and water. The spray pump is attached to a wagon on which is a tank holding 300 gallons. The liquid must be thrown upward from near the ground, as the spider inhabits only the under side of the leaf.

Santa Clara.

FRUIT CROP NOTES.—San Jose *Mercury:* A tour of investigation among the canneries by a representative of the *Mercury* recently brought out the information that the outlook for a large pack this season is promising. The first crop of strawberries is about gone and no more are expected in very large quantities till the middle of July. The gooseberry and pea crops are reported to be fair. This season J. Z. Anderson has shipped about 25 carloads of cherries East. The pear crop is expected to be unusually large, especially the Bartlett variety. The reason for this is that a great number of trees have come into bearing this season. The crop of Winter Nelis pears will be medium. The apricot crop will be about the same as last season. Apricots, pears and peaches are expected to be ready for canning about July 10th, and then the rush will come. The prices for green fruit have not been established as yet, because there is an abundant supply of fruit in sight, and the tendency of the handlers is to await the condition of the market before fixing prices. The Fruit Exchange which has recently been organized will help to fix prices this year, as the members of it control the majority of the fruit raised in this county. It is certain that a much larger percentage of fruit growers than ever before will dry their own fruit this year, and it is a pleasing fact that none of them are looking around for buyers—that day has practically passed, thanks to the Fruit Exchange and the cooperative dryers. Now the producers are on a fair way to control the markets, and before another season goes by they will have the business entirely in their own hands. No matter what the state of the Eastern crop, the California product will not be affected by it. Our products are more varied and in every way superior, and the consumers will demand them in preference to all others as long as they are to be had in the markets. No country in the world can compare with California in fruit-growing, and no other section can compare with Santa Clara county. Such a thing as overproduction is impossible. The market is extending and will continue to extend faster than the amount of product can increase. When every available foot of soil in Santa Clara county is devoted to fruit-growing the returns to the producers will be as great, if not greater, than at the present time.

Shasta.

FIRST CARLOAD OF FRUIT SENT FROM SHASTA CO.—Redding *Democrat*: The first carload of green fruit that has ever left Shasta county for the Eastern market left Anderson on June 27th. Al Smith, proprietor of the Anderson flour mill, says between 50 and 60 carloads of green fruit will be shipped from Anderson this season. That is news that will encourage and make the fruit growers of Shasta county smile. All the shipping fruit around Anderson has been contracted for at good prices.

Stanislaus.

GRAIN AND FRUIT NOTES.—Oakdale cor. Modesto *Herald*: The harvest is now well under way, and judging from several samples of the new wheat crop which have been exhibited to our dealers, the quality is inferior to that of last season. The reason given for the shriveled appearance of the kernel is that in many fields the crop was blighted by the extreme hot wave about the first days of June. The greater portion of the crop through this section will be harvested this season by combines. * * * * The many flourishing orchards and vineyards extending along the Stanislaus from Oakdale to the vicinity of Langworth have put on a rapid growth this season, but the fruit crop, as a rule, is light. These orchards and vineyards, as enumerated by the writer a few months since, contain about 500 acres. This statement includes the area planted to trees and vines in and around Oakdale. A. V. Stuart has made several shipments of peaches to San Francisco recently. He will start up his canning and drying establishment within a few days.

Sutter.

FRUIT NOTES.—Yuba City *Farmer*: Every day large loads of fruit are seen coming to town for shipping or to the canneries. Local shippers are kept busy handling the choice boxes of apricots, peaches, pears, plums and apples, and the hundreds of active employes at the two canneries handle an enormous quantity of fruit per day. At the orchards there is work for all, and besides the numerous pickers and packers, a large portion of the fruit is being cut and dried on the grounds. This is principally in apricots, the peaches not yet being ripe enough to dry to any great extent. We notice many women, girls and boys from town going out to the orchards and earning good wages cutting apricots. The work is not disagreeable and the young folks have a good time, besides earning a snug sum by their labor. The work at the cannery is progressing lively and from ten to twelve tons of apricots are being packed daily. The plant has every convenience and new improvements for putting the fruit into the cans in the best possible shape and quickest time. The apricot pack will close some time the fore part of next week, and no work on fruit will be done then until the peaches are ready for canning, which will be about the middle of the month. The peach pack will be quite large and the quality of the fruit was never better. On the drying ground a large number of trays are spread out, covered with apricots that were too soft for canning but in prime condition for drying. The drier will be run all through the season.

Tulare.

SUMMER PRUNING.—C. J. Berry in Tulare *Times*: I take the ground that the first and inevitable result of cutting any tree is to do it a direct and irreparable injury; that pruning either root or top destroys existing balance and makes necessary a readjustment of the functions of the root and foliage, causing a suspension of growth and, as a final result, a smaller tree than if it had gone unpruned. Pruning for growth I characterize as absurd. Some people prune to make trees bear well. There is no doubt it does make them bear, for it is an accepted fact that anything which threatens the vitality of a plant causes it to make an effort to reproduce its kind. The only reason, then, why pruning does make a tree bear is because it threatens its vitality. We complain loudly of the rapid increase of those hostile insects and dangerous diseases which now attack our trees and plants. In my opinion, the prevalence of both is due almost wholly to the low vitality and disarranged circulation caused by our defiance of the laws of nature. In attempting to improve upon nature we have got so far removed from her that, continually thwarted, she is unable in her own chosen and proper way to control those diseases and insects; so the duty devolves on us, with what success, satisfaction and profit, each can answer for himself.

A LARGE LEMON ORCHARD.—Visalia *Delta*: The Kaweah Lemon Company has filed articles of incorporation in the County Clerk's office. The capital stock is $72,000, divided into 240 shares of the par value of $300 each. The whole amount of the capital stock has been actually subscribed equally among the directors. This company has purchased 120 acres of fine citrus land in J. W. C. Pogue's ranch at Lime Kiln. Ten acres have already been set out in trees, and 110 acres will be planted next season. The Lisbon variety will be planted.

A GRAPE GROWER'S VIEWS.—Hanford *Sentinel*: C. M. Blowers, the well-known vineyardist, does not attribute the falling of grapes from vines this season to any disease whatever, but says it is due to the cold weather in the early part of the season. When the warm weather came on, the vines took an extraordinary rapid growth. The sap came up freely, and as a consequence the first crop of grapes that had set were partially thrown off. Some of his best vines have the smallest burden of fruitage. He says the vines are growing at a very rapid rate this season. He is a careful observer and not given to imaginary theorizing, and his opinion is reliable. The early summer was an extraordinary cool one for this climate, and the shortage in the first crop of raisins is doubtless due to that cause, as Mr. Blowers says.

SELLING SECOND AND THIRD CROP GRAPES TO WINEMEN.—Hanford *Journal:* A large number of the farmers and fruit growers of Selma held a meeting last Saturday to consider the proposition of the establishment of a distillery in that town to use up the second and third crop of grapes. All those present agreed to sell their second and third crop of grapes to a distillery in that town at $7 per ton. About 5000 tons were desired by Williams, Brown & Co., who are going to establish the distillery, and 3000 tons of this amount have been secured.

Ventura.

SESPE, June 28th.

TO THE EDITOR: It is pretty dry here. Last year we scarcely had our usual quantity of rain; so also of this year. Hay is of excellent quality, but it is light. It is all cut and mostly baled or stacked. We raise little but barley hay here; some few patches of alfalfa. On moist bottom ground corn is looking well, but on dry upland, like mine, it will not make a crop. Beans are growing finely, but for the most part I think the crop will be light. Not nearly so many planted this year as last, in this county. Fruit trees and fruit doing fairly well I believe generally; where irrigated as they are on the Sespe river orange and other trees are growing finely. I have a small garden on the Sespe which I irrigate and which of course looks finely. "They" are boring and getting oil all around me—think some of turning my farm into an oil producer. There are a number of derricks in sight, across the Santa Clara river, oil being pumped from some of them.

S. P. SNOW.

SALES OF NEW CROP LIMA BEANS.—Ventura *Free Press*. One of our largest growers, Wm. Shiells, reports that he has contracted part of his new crop of limas at 2½ cents per pound and that he refused to contract his entire crop at that price. We understand from several prominent growers that buyers have been quite numerous during the past week and $2.35 has been freely offered and refused. Most holders are firm in their views of from 2½ to 3 cents and we doubt if anything less than the latter price would buy any quantity. In view of the small acreage planted and the probable light yield, it would seem as though they were good value at even present prices, and we venture the prediction that no limas will be sold for less than 2½ cents for the next 12 months.

RABBITS INCREASING AS COYOTES DECREASE.—Ventura *Democrat*: Deputy Assessor Webster was over on the Cuyama last week on official business. He says the settlers are cursed with swarms of rabbits that are destroying everything in the shape of foliage or vegetation in sight. The presence of these pests in countless numbers is ascribed largely to the coyote scalp law. Since the latter animals have been hunted and killed for the bounty offered for their scalps, the rabbits have multiplied in such numbers as to threaten the destruction of crops in every section of the county. The enactment of the scalp law looks to us very much like jumping out of the frying pan into the fire.

OREGON.

CODLIN MOTH IN WESTERN OREGON.—Eugene *Register:* The destructive little codlin moth is already at work in the apples, and the chances are that by the time the winter apples are ripe the codlin moth will have them pretty well eaten up. An inspection of almost any apple tree will show that where two apples touch each other the codlin moth has begun his work and is boring into them. So far as we can learn but little spraying has been done in the country to dispose of these pests or to check their destructive work. Something must be done to rid the orchards of them or in a year or two the apples will be worthless.

FRUITS FOR THE WORLD'S FAIR.—Eugene *Register:* The State Horticultural Society is actively at work making arrangements for the display of Oregon products to be made at the World's Fair at Chicago next year. Last January a committee was appointed to take charge of the matter, and it announces that it has just received a shipment of nearly a carload of glass jars in which to put up the fruit for the exhibit. These are made especially for exhibit purposes. They are of all sizes, from one quart to seven gallons, and when filled with Oregon fruit will certainly make a very elegant exhibit. The committee is now ready to receive fruits of all kinds, with which to fill these jars. It is not only desired that the very best of all kinds that are grown in the State shall be thus secured, but that all parts of the State shall be represented. The name of the grower, with the address, together with the name of the fruit, will be placed on each jar.

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The State Board of Agriculture stands ready to assist the producer, and by gathering your exhibits and showing them at home at the State Fair, you can take advantage of the cash awards to assist you in the good work. All exhibits shown at the State Fair will be kept free of storage until their removal. BEGIN WITH HARVEST.

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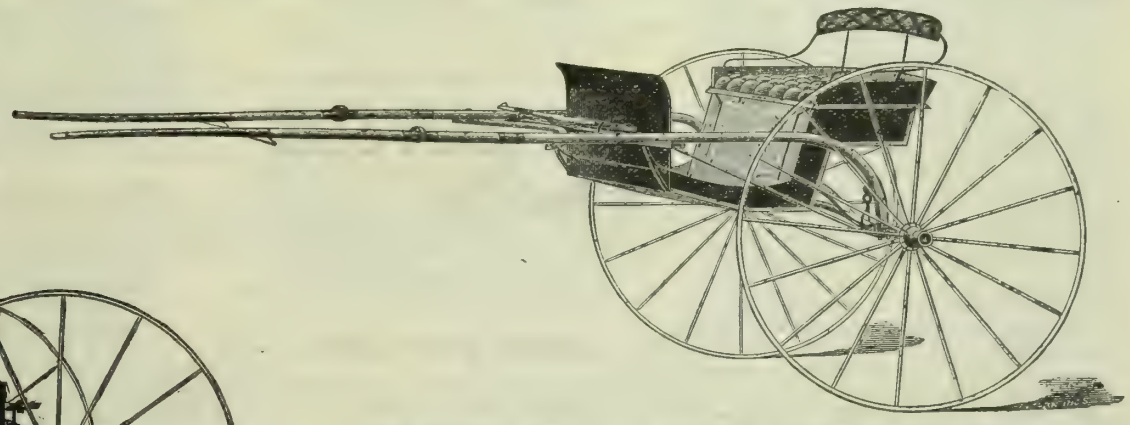

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DOMESTIC ECONOMY.

LAYING LINOLEUMS.—While it is difficult to follow a system in fitting oilcloths and linoleums, a few cardinal rules must be observed, and we venture to suggest them. In cutting linoleum from a diagram allow an inch at the ends. If it is not to be laid at once allow also a fraction on the width, for shrinkage is probable both ways. Get the diagram correct to the fraction of an inch, so that if cutting must be done for center-pieces or register holes it can be done before the cloth is laid on the room. Tack linoleum after butting the edges evenly within an invisible brad, say four inches apart, and if possible line the edges with an adhesive paste. Get the floor smooth by dressing the planks. Do not try to even it up by laying strips of paper lining over sinks in the floor. Nothing but a jack plane will serve. The future service of the cloth will depend upon the floor being perfectly smooth. A nicely laid linoleum needs no binding, but should binding be desired for sake of appearance, use one-half-inch brass binding. Let linoleum, like oilcloth, lay face down several days in the store before fitting it. Another reason for having the cloth made perfectly ready for the apartment is to avoid scratching the baseboard with surplus cloth, and the certainty of cutting the ends untrue. The balance of the detail must be left to the skill of the layer. We offer no antidote for blisters and puffs which appear in the center of sheets of linoleum and oilcloth. The manufacturer comes in there. The seller had better lie low, and hope that Mrs. Jones will not put much stress on that "little swell," for he is powerless to help it.—Carpet and Upholstery.

EGG AND MILK.—Take a fresh egg, break it in a saucer, and with a three-pronged fork beat it until it is as thick as batter. Have ready half a pint of new milk sweetened with white sugar, stir the egg into the milk, and serve it with a piece of sponge cake or slice of tost. It is considered very light, nourishing food for an invalid. Some prefer the yolk and white of the egg beaten separately. The yolk should be beaten till it is very light and thick, then pour it into the sweetened milk; afterward beat the white till it will stand alone, and add gradually half a teaspoonful of white sugar; pile the white on the top of the milk and serve as before.

ORANGE CUSTARD PUDDING.—Boil a pint of new milk, pour it upon three eggs lightly beaten, mix in the grated peel of an orange and two ounces of loaf sugar; beat all together for ten minutes, then pour the custard into a pie dish, set it into another containing a little water, and put it into a moderate oven. When the custard is set, which generally takes about half an hour, take it out and let it get cold. Then sprinkle over rather thickly some very fine sugar, and brown with a salamander. This should be eaten cold.

CHEESE FRITTERS. — Slice thin half a dozen large, tart apples, and prepare half as many thin slices of cheese. Beat up one or two eggs, according to the quantity required, and season high with salt, mustard and a little pepper. Lay the slices of cheese to soak for a few minutes in the mixture. Then put each slice between two slices of apples, sandwich style, and dip the whole in the beaten egg. Fry in hot butter and serve hot.

POTATO SOUP.—A quarter of a pound of butter, three large onions peeled and sliced small; stew in a stewpan until brown; stir frequently. When ready have peeled three or four dozen of medium size white potatoes, and slice them into the stewpan with the onions and butter. Pour sufficient boiling water over for the amount of soup desired. Let them boil for two hours, and then strain through a sieve in a soup tureen. Season with salt and pepper.

FRUIT MUFFINS.—Mix equal parts of well-cooked graham flour, B. oatmeal and water, and bake in muffin rings for 20 minutes, or until the cakes will slip through the rings without sticking. While hot, split in halves; on one half place ripe fruit, lightly sprinkled with sugar, then immediately cover with the other half. When all are thus fruit covered, set in a warm place for ten minutes before serving.

PINEAPPLE TRIFLE.—Pick a pineapple into small bits with a silver fork Make it quite sweet, and let it stand until the sugar is melted. Mix with it as much dry sponge cake, crumbled fine, as it will moisten. Bake half an hour and cover with a meringue.

GIPSY PUDDING.—Cut stale sponge cake in thin slices; spread with apple jelly. Put together like a sandwich, place them in a deep dish, cover with boiled custard. Serve very cold.

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SAN FRANCISCO SAVINGS UNION, 532 CALIFORnia Street, corner Webb; Branch, 1700 Market Street, corner Polk.—For the half year ending with 30th June, 1892, a dividend has been declared at the rate of five and one-fifth (5 1-5) per cent. per annum on Term Deposits, and four and one-third (4⅓) per cent. per annum on Ordinary Deposits, free of taxes, payable on and after FRIDAY, 1st July, 1892. LOVELL WHITE, Cashier.

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Wednesday, August 10, 1892, at 11 A. M.

KILLIP & CO. will Conduct the Sale and Issue the Catalogues.

AMOMG THE OTHERS TO BE SOLD WILL BE THE FOLLOWING FILLIES:

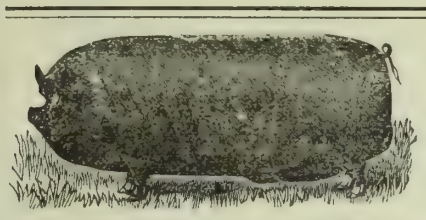
LOOKOUT. Br f, foaled 1890.
- DIRECTOR 2:17. 1989
  - DICTATOR 113.
  - DOLLY, 4 in the 2:30 list.
- ADINA.....
  - ELECTIONEER 125.
  - ADDIE LEE, 4 in the 2:30 list.

PINOLE—Br f, foaled 1890.
- MONDAY 10,000
  - WEDGEWOOD 692, 2:19.
  - NOONTIDE, 2:20½.
- VALONA.....
  - NUTWOOD, JR (by Nutwood 600).
  - LUCY PATCHEN (dam of Jas. Madison, 2:17¾)

BET MADISON Br f, foaled 1891.
- JAMES MADISON 17,909, 2:17¾.....
  - ANTEKO.
  - LUCY PATCHEN.
- BETSY TROTWOOD.....
  - ABBOTSFORD 707, 219½.
  - ALPHA MEDIUM (Dam of Katy S.) 2:25.

☞ The Stock will all be at Salesyard a few days before the sale for examination.

H. I. THORNTON.



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Genuine only with RED BALL brand.

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Porteous Improved Scraper

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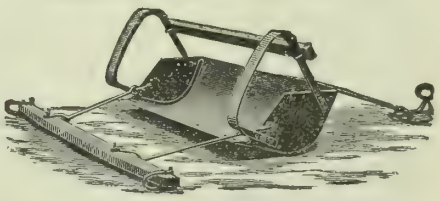

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The attention of the public is called to this Scraper and the many varieties of work of which it is capable, such as Railroad Work, Irrigation Ditches, Levee Building, Leveling Land, Road Making, etc.

This implement will take up and carry its load to any desired distance. It will distribute the dirt evenly or deposit its load in bulk as desired. It will do the work of Scraper, Grader, and Carrier. Thousands of these Scrapers are in use in all parts of the country.

☞ This Scraper is all steel—the only one manufactured in the State.

Price, all Steel, four-horse, $40; Steel two-horse, $31. Address all orders to G. LISSENDEN, Stockton, California.

DURHAM BULLS.

I have two 2-year-old Shorthorn Bulls, mostly red, in good order, and the price delivered on cars or ship in San Francisco, is $80 each—are thoroughbred but can't pedigree, hence the price.

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Lick House, San Francisco, Cal.

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MEMBER OF THE ROYAL COLLEGE OF VETERINARY Surgeons, London, England. Late Veterinary Surgeon in the United States Army. Veterinary Contributor to the "Pacific Rural Press." The diseases of all Domestic Animals treated on Scientific Principles. Special attention given to Chronic Lameness and Surgical Operations. 405 BRODERICK ST., SAN FRANCISCO. Calls to the country promptly attended to. Telephone No. 4667

MONEY "HOW CAN I Make Some?" By using the Pacific Incubator and Brooder, which will hatch any kind of eggs better than a hen. In universal use. Gold Medal wherever exhibited. Thoroughbred Poultry and Poultry Appliances. Send 8 cts. in stamps for 82-page catalogue, with 30 full-sized colored cuts of thoroughbred fowls, to Pacific Incubator Co., 187 Castro St., Oakland, Cal.

—THE—

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COMPANY,

1212 Myrtle Street, Oakland Cal.

Send Stamp for Circular.

POULTRYMEN, Hens are beginning to stop laying and consequently the price of eggs is advancing. Every one should now feed Wellington's Improved Egg Food regularly if they desire to have eggs to sell when they reach high prices. Get it of any MERCHANT or of Proprietor, B. F. WELLINGTON, 425 Washington St., San Francisco.

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THE BEST!

—THE—

H. H. H.

Horse Liniment

Is certainly the best preparation of its kind in the market. Ranchers, Stock Raisers and Horse Owners of every description will tell you that it does good work every time.

MESSRS. H. H. MOORE & SONS, Stockton, Cal.—GENTLEMEN: In answer to your inquiry, would state that I used your H. H. H. Liniment on my Holland prize-winning cow, "Lena Menlo," for a wrenched shoulder, and it relieved her very much. She calved the next day, and while still suffering from the sprain gave the largest authenticated quantity of milk ever given on this coast (10½ gallons per day), showing conclusively the great relief received from your remedy. I consider it a necessity in my stables, and when away from home feel perfectly safe, as inexperienced men can do no harm with it, as they can with the more powerful blisters. Respectfully yours, FRANK H. BURKE,
Breeder of Registered Holsteins and Berkshires.
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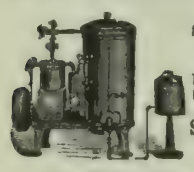
Acme Automatic Safety Engine.



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SECTIONAL BOILER.
Uses Oil as Fuel.
1, 2, 3, and 4-Horse Power Developed at only Nominal Expense.

SAFE! RELIABLE! ECONOMICAL!

These Driving Powers are in General Use by

BOATMEN, for Marine Purposes
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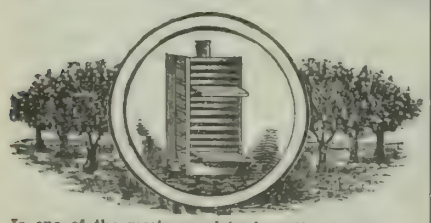

Is one of the most complete inventions for drying **Raisins** and **Prunes** by steam in 24 hours—other fruits less time. No sulphur or potash used. Retains all syrup, juice and flavor in original purity. Capacity, dries from 75 lbs green fruit to 20 tons. Send for circulars. CALIFORNIA FRUIT EVAPORATING & M'F'G CO., 347½ S. Spring St., Los Angeles, Cal.

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No story need be told of the Cyclone or of the number that have been sold. They can be seen working in every inhabited part of the Pacific Slope whilst hundreds are exported every year.

The Cyclone mill is not an experiment, but acknowledged by all who have used it to be the most powerful and durable mill on the market.

It is simple in construction, has no cogs or complicated gearing to get out of order. Has only three principal bearings, heavily babbited boxes and self oiling apartments.

The wheel and vane of the Cyclone (which are the most durable parts of any solid wheel mill) are made strong and of well seasoned wood finished with the best lead and oil which neither blister in the sun nor is consumed by rust

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Mann's Green Bone Cutter

FOR POULTRY FOOD.

Patented June 15, 1886; August 20, 1889. Canada Patent, June 12, 1890.

WE WARRANT this machine to cut Dry or Green Bones, meat, gristle and all, by Hand Power, without clog or difficulty, or MONEY REFUNDED.

GREEN CUT BONE WILL DOUBLE THE NUMBER OF EGGS, will make them 25 per cent more fertile, and increase the vigor of the whole flock. COST OF FEEDING MATERIALLY LESSENED.

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Hay Presses made by the Celebrated Press Manufacturer,

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WELL SUPPLIES All Kinds, Water, Gas, Oil, Mining, Ditching, Pumping, Wind & Steam Mach'y. Encyclopedia 25c. The American Well Works, Aurora, Ill.
11-13 S. Canal St., CHICAGO, ILL. } Branch Houses
Elm Street, DALLAS, TEXAS.

S. F. MARKET REPORT

Market Review.

SAN FRANCISCO, July 6, 1892.

General trade was interrupted by a two-day holiday, from which it has not fully recovered at this writing. A large number of business men is still absent (visiting at the various summer resorts), and will not probably return before the close of the week. By the 15th of the current month, it is claimed, business will have resumed its normal condition, when far more active times can reasonably be looked for. Harvest work is being vigorously pushed in all parts of the State under favorable circumstances. Crops are averaging larger than had been estimated, so that, with good crops, as a rule, and the outlook promising for remunerative prices, we should have more prosperous times. The money market continues to favor borrowers with first-class or gilt-edged securities.

Foreign Grain Review.

LONDON, July 4.—The Mark Lane *Express* says: English wheats are dull and 6d to 6s lower; foreign 6d lower. It is estimated that 3,000,000 quarters of foreign wheat and 100,000 sacks of flour have been placed in warehouse. Maize is weaker; oats have declined 3d, white American selling 17s. Rye is firmer; beans and peas 6d cheaper. At to-day's market, flour was weaker; English was in better demand than foreign. There was but little business in barley; grinding borts dropped 6d. There was a fair inquiry for maize; round corn fell 3d; other borts are unchanged. Oats and barley are lower. Beans and peas are neglected.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	June.	July.	Aug.	Sept.	Oct.	Nov.
Thursday	....	6s07 d	6s08 d	6s08½d	6s08¾d	6s09 d
Friday	6s07½d	6s06¾d	6s07¼d	6s08¼d	6s08¾d	....
Saturday	....	....	....	....	....	....
Monday	....	....	....	....	....	....
Tuesday	6s03 d	6s06¾d	6s07¾d	6s08¾d	6s09½d	6s09½d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week.

	O. O.	P. S.	N. D.	Market for P. S.	Weather.
Thursday	34s3d	34s3d	34s3d	Easy.	Warmer.
Friday	34s3d	34s3d	34s3d	Weaker.	Warm.
Saturday	....	....	....	....	
Monday	....	....	....	....	
Tuesday	...	...	34s6d	Neglected.	Favorable.

To-day's cablegram is as follows:

LIVERPOOL, July 6.—WHEAT—Not much in demand. California spot 7s; off cost, 34s; just shipped, 34s; nearly due, 34s; cargoes off coast, quiet but steady; cargoes on passage, not much demand; Mark Mane wheat, slow; French country markets, under influence of fine weather, markets cheaper; weather in England, fair with showers.

New York.

The following shows the closing prices of wheat for the past week:

Day.	July	Aug.	Sept.	Oct.	Nov.
Thursday	143⅛	144⅞	147⅞	....	....
Friday	143⅛	143½	144	145½	....
Saturday	....	....	....	....	....
Monday	....	....	....	....	....
Tuesday	143½	143½	144¼	145⅓	....

The following are to-days' telegram:

NEW YORK, July 6.—WHEAT—85⅞c for July, 85¾c for August, 89c for December and 93½c for May.

CHICAGO, July 6.—WHEAT—78⅜c for July, 78¼c for September and 80¾c for December.

San Francisco.

WHEAT.

	Seller '92.	Buyer Aug.	Buyer Sept.	Buyer Oct.	Buyer Dec.
Thursday, highest	137⅛	....	....	....	142½
" lowest	137	....	....	....	142
Friday, highest	137⅛	....	....	....	....
" lowest	136⅞	....	....	....	....
Saturday, highest	....	....	....	....	....
" lowest	....	....	....	....	....
Monday, highest	....	....	....	....	....
" lowest	....	....	....	....	....
Tuesday, highest	136½	....	....	....	....
" lowest	136¼	....	....	....	....

The following are to-day's recorded sales on Call:

Morning Informal—Seller 1892, 100 tons, $1.36⅞; 300, $1.36¼ ₩ ctl. Regular Session.—Seller 1892, 100 tons, $1.36¼; 2100, $1.36½; 2300, $1.36⅜. Buyer December, 100 tons, $1.40⅜; 100, $1.40⅞; 100, $1.40¾ ₩ ctl. Afternoon.—Seller 1892, 1800 tons, $1.37⅜; 1100, $1.36¼. Buyer December, 400 tons, $1.40½; September, 100 tons, $1.37½ per ctl.

BARLEY.

	Seller '92.	Buyer Aug.	Buyer Sept.	Buyer Oct.	Buyer Dec.
Thursday, highest	92½	....	94	....	....
" lowest	92½	....	94	....	....
Friday, highest	97½	....	....	....	....
" lowest	92½	....	....	....	....
Saturday, highest	....	....	....	....	....
" lowest	....	....	....	....	....
Monday, highest	....	....	....	....	....
" lowest	....	....	....	....	....
Tuesday, highest	92½	....	....	....	95⅝
" lowest	91½	....	....	....	95⅝

The following are to-day's recorded sales on Call:

Informal.—Seller 1892, new, 100 tons, 91¾c. Regular Session.—Seller 1892, new, 600 tons, 91¾c; 100, 91½c per ctl. Afternoon.—Seller 1892, new, 100 tons, 9 ½c; 400, 91½c; 300, 91¾c per ctl.

Markets by Telegraph.

California Dried Fruit.

NEW YORK, July 4.—The remaining raisins are in few hands. Five hundred boxes of common layers brought $1 10; good to prime three-crown bags are worth 4¾c and 5c. The proposed dictation of prices for new crop which reach us is deemed untimely and injudicious. The Coast has effectively pushed Spain aside, but with her natural inclination to regain her commercial position the 2½c duty on her product might not prove a severe handicap if domestic growers overweight their opening prices. Buyers doubt the short apricot crop rumors and are loth to pay 9½ and 10c free on board; still the inquiry is strong at the close and points to early materialization. There will be little sun-drying of North Carolina or Georgia peaches this season; also few Eastern cherries.

Eastern Wool Markets.

NEW YORK, July 1.—Manufacturers are buying wool more freely, though none of the leading markets can be called active. New wools are being bought in from the West at much higher prices than manufacturers are willing to pay, while the whole tendency is toward advance. Manufacturers will not accept it unless the quality of wool is superior to that of last year. At the old prices sales would now be large, for the majority of the manufacturers are short of stock. The supply of new wools which is now in the Eastern markets is large and is steadily increasing. There is a good demand for Texas wools. Territory wools are coming along more freely and sales are larger. There is a quiet trade in pulled wools. New lamb's wool is beginning to come forward. Receipts will steadily increase during July. Dealers have only light stocks. Pulled wools are holding quotations firm, as manufacturers will need all now on the market: A good strong demand is noted for Australian wools. London sales prices have been advanced from 5 to 10 per cent on fine Merinos and crossbreds. Prices abroad are higher relatively than here. Wools which are now being sold here cannot be duplicated at the same prices. It is estimated that 5000 bales have been taken for this country. The advance in London will influence greatly American markets, particularly prices in Ohio and Michigan wools, competitors of Australia. Some large sales in Cordova wool are reported. Otherwise carpet wools are quiet.

General Remarks and Statistics.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending July 5, '92, were as follows:

Flour, qr. sks	34,235	Bran, sks	4,071
Wheat, ctls	110,572	Buckwheat "	....
Barley, "	56,460	Middlings "	1,156
Rye, "	642	Chicory, bbls	105
Oats, "	2,482	Hops, "	....
Corn, "	3,895	Wool, "	2,657
*Butter, "	1,077	Hay, ton	2,213
do bxs	820	Straw, "	100
do bbls	17	Wine, gals	144,078
do kegs	32	Brandy, "	5,810
do tubs	259	Raisins, bxs	468
do ½ bxs	125	Honey, cs	114
†Cheese, ctls	953	Peanuts, sks	745
do bxs	191	Walnuts "	24
Eggs, doz	28,300	Almonds "	....
do "Eastern	108,500	Mustard "	....
Beans, sks	5,667	Flax "	6,468
Potatoes, sks	16,367	Popcorn "	....
Onions, "	1,949	Broom corn, bbls	....

*Overl'd, 269 ctls. † Overland, —ctls.

English Hop Crop Notes.

W. H. & H. Le May, in their London circular June 20, say: The low temperature of the last week has seriously checked the growth of the bine, and it has now a very yellow and sticky appearance, and in many gardens is still only half way up the poles; fly has increased in the Kent and Sussex plantations, and there is a sprinkling of lice to be found in all gardens; many districts of these counties, Worcester and Hereford, are in a black blight. It is easy to find from 20 to 200 fly on a pole in most gardens. Surrey and Hants are in about the same state as Kent and Sussex.

Cereals.

Mark Lane *Express*, June 20th, says: The present promise for the United Kingdom, allowing for diminished area under wheat cultivation, is for a crop about one million qrs. smaller than that of last year. The barley seems to have made very satisfactory progress of late, and on the fine malting barley soils of Suffolk and Essex should be a remunerative yield.

English wheat for May had an average of 31s. 3d. being a fall of 9s. 2d. on the twelvemonth, and of 11d. even from that very cheap year 1890. Since January 1st of the present year the fall was about four shillings. The first fortnight of June has seen a further retrogression of 10d. on the qr. in the country and of 7d. in London, where a mean value of 31s. 9d. is now quoted against 32s. 4d. formerly obtained. Value seems to be ebbing at a rate which will, if not checked, give us a June wheat average of under 30s. per qr. as in 1889, a year of depression in summer prices for which parallel has to be sought outside the nineteenth century. The last two days of trade, Friday and Saturday, afford some slight hope that the downward movement will go no further. There are no large reserves in farmers' hands, and if these reserves are held from now over harvest—even if only half of them are—the gravity of the present situation will be greatly mitigated. The following special table has been prepared to help the reader to estimate what further supplies of the three chief imported staples are likely to come to hand during the remainder of the present cereal year. Of the wheat afloat, the Californian will not all come to hand before August 31, but against this may be written off the shipments under contract from the Atlantic ports for July by steamer. These will arrive during August, and will come into this cereal year's figures, but they cannot yet be indicated in precise statistics:—

GRAIN AFLOAT ON JUNE 15 FOR SIX YEARS.

	Wheat. qrs.	Maize. qrs.	Barley. qrs.
1892	2,556,000	455,000	114,000
1891	2,839,000	444,000	157,000
1890	2,255,000	525,000	127,000
1889	1,320,000	498,000	156,000
1888	2,258,000	420,000	141,000
1887	1,824,000	385,000	100,000

This extended comparison enables us to see that the wheat now afloat is, if a large, at least not an unprecedented quantity, that the expectations of maize are as nearly as possible an average, and that the floating quantity of barley must be considered small.

Beerbohm gave an estimate on the Indian wheat crop making it materially less than had been anticipated. Estimates hitherto made a decrease in the crop of 25 to 30 million bushels, but his estimates to-day showed a decrease of 64,000,000 bushels in the crop in India, which would reduce the total to 191,000,000 bushels. The average is about 240,000,000 bushels. Some doubt was cast upon this owing to the fact that the Indian shipments for this season have been nearly as large as they were for the corresponding time last year The total from April 1 up to date amounts to 16,400,000, against 17,080,000 for the corresponding time last year.

The decrease in stocks has been quite rapid all over the world, and a well-known Liverpool authority, the *Commercial Trade Journal* estimates that the decrease in the world's visible supply in June will be 40,000,000 bushels. The crop outlook abroad is fairly good in nearly all countries. None of the advices indicate a heavy outturn and a few a serious deficiency.

In the local market wheat held strong, notwithstanding Saturday and Monday were holidays. Yesterday buyers entered the market and paid an advance in the country on last week's quotations. More deep sea vessels arriving, combined with several chartered vessels' lay days being about out, were important factors in our market. It is now authoritatively asserted that the crops in the United States will not be much if any larger than has been estimated by the RURAL PRESS. In this State harvesting is well under way, and the outturn is proving to be larger than was expected. The grain also averages plumper than the outlook promised three weeks ago. There are many localities where the grain is shriveled and the grade poor, but these are the exceptions rather than the rule. Advices from Eastern Oregon and Eastern Washington are confirmatory of a light yield. Although an increased acreage had been seeded, yet the outturn will be below that in last year. The grade will also be poorer.

On June 21st, the Oregon Crop-Weather Bulletin reported as follows (since that date no change for the better has taken place): As a rule, in Wasco, Sherman, Gilliam and Morrow counties, the wheat prospects are poor. "The prospects are gloomy," write several correspondents. Fall grain is past saving in these counties. It is estimated that two-thirds of the wheat in these four counties will not make over one-half a crop, and the other one-third will not make hay. In Umatilla county, north and east of Pendleton, the crop is in a fair condition, but not an average; to the west of Pendleton, it is almost a failure. In Union and Wallowa counties, the crop is better than in any other of the counties; but yet in these two counties it is not an average. In Baker, Malheur and in all counties south of the Blue mountains, the grain was more or less injured by frosts and the drying winds, so that, while the hay is an average crop, the oats and wheat are poor. Rye is generally a pretty good crop. Sheep-shearing is about completed, and most of the sheep have been moved to the summer range in the mountains.

The bears on 'Change succeeded in shading the barley market just before the Fourth, but on yesterday (Tuesday) prices were advanced under stronger buying. The heavy receipts in June were for delivery on last season's contracts, but as the grain went into strong hands, dealers and buyers in general were not able to secure any at lower prices. The crop in Oregon and Washington will not be as large in this year as it was in 1891. Crop advices from the Central States are conflicting, but the general tenor is that they will be short when compared with the crop in last year. In both France and England, the crop does not promise to be an average yield to the acre, and as the supply of old will be light, it is thought free importing will be necessary to meet the requirement. The outturn in this State promises to be larger than it was in last year, with the grade generally better.

Oats have held to steady prices. Receipts have only been fair, while the demand has been fairly active. The impression prevails that prices will average higher in the season of 1892-93 than they did the past season.

Corn ruled dull and easy throughout the past week, but at the close the market appears to be steadying. The crop in the States east of the Rocky mountains will be quite short, and higher prices are among the certainties.

Rye continues dull and in buyers' favor.

Corn was offering freely to-day at a decline. Samples of Utah corn for shipment were exhibited, which caused the decline.

Feedstuff.

The market held to firm prices throughout the week. The light receipts of bran and middlings caused the market in them to clean up, while ground and rolled barley and feed meal went off fairly well. The home consumption and shipping demand appears to be enlarging.

Now that the new storage season has been entered and the Fourth passed, a more active demand should set in soon. The crop in the southern part of the State is short; in the central counties it is fair, and in the northern counties it is fairly large. In the coast counties the crop ranges from fair to large Western Oregon and Western Washington will have good crops, but east of the Cascades it will be light. The consumption in this State is enlarging.

Dairy Produce.

The receipts of butter, cheese and eggs at San Francisco in May were as follows:

Sources.	Butter, lbs.	Cheese, lbs.	Eggs, doz.
California	1,517,500	593,300	168,095
Oregon	16,600	12,500	1,350
Eastern	277,100	28,500	434,290
Totals	1,811,200	633,100	603,735
January	502,200	476,900	420,345
February	622 550	313,500	200,765
March	1,188,700	574,290	358,756
April	1,793,050	802,900	590,068
May	1,713,100	715,900	536,170
Six months	7,630,800	3,517,500	2,759,839

During the first six months in 1891, the receipts aggregated as follows: Butter, 7,034,100 lbs.; cheese, 3,249,200 lbs.; eggs, 2,560,032 dozen.

Butter shaded off the past week, with the closing barely steady. The lateness of the season for packing and a decreasing outlet are against sellers. Eastern advices are favorable to the holding interests, for the output of the dairies are said to be less up to July 1, than it was during the corresponding term in 1891. While a few brands of Californian sell at an advance, in a small way, on our outside quotations, yet to quote the prices would be deceiving in a dull and weak market.

Cheese has held steady for choice to gilt-edged full cream, but for poor to fair the market has ruled in buyer's favor. The market, taken as a whole, is steady, with a firmer undertone.

The strong selling competition between receivers of Eastern eggs appears to be giving way. The market is cleaning up. "As is" Eastern eggs are still poor sellers, but candled, and the packs of several well-known reliable packers are firmer. California eggs are firmer, with the market cleaning up. It looks now as if the market will soon do better.

Fruit.

Berries and currants are said to be better in quality and of larger general average size than for two or more years past. Prices have been quite remunerative in consequence of the improvement in quality and size, combined with barely an average crop. Currants are going out as are gooseberries. Longworth strawberries are scarce.

In tree fruit the market holds to good prices. Like berries, the fruit averages better in quality and of larger size than for two or more years past. Cherries are going out. Oregon advices report that we need not expect many cherries from that State, as the crop is short; the same advices are received regarding prunes and other tree fruits. Bartlett and Dearborn seedling pears are in fair receipt, and when suitable for shipping fetch quotations. Apricots are selling well, with canners running chiefly on Peach and Moorpark. Royals are taken chiefly for table use. Hale's Early peaches are coming in larger and better in quality. Duane's purple plums are in heavy supply and sell for less money. Apples are slightly lower. The first cantaloupes and watermelons came in on Tuesday from G. W. Thissell Jr., Winters. The watermelons brought $2.50 ₩ crate and the cantaloupes 50c each. M. Farrell of Vacaville, sent in on Tuesday the first white nectarines. They sold for $1.50 ₩ box. Canners and dryers are contracting at the following figures, prices being regulated by quality and location: Bartlett pears, $20@40 per ton; plums, $20@27.50; peaches, $37.50@50; nectarines, $30@35; apricots, $25@37.50; prunes, $35@45. Some claim that slightly higher prices are paid for choice in favored localities.

For raisins in the sweat, the range of prices is placed at 4½@5½c. With very few second and third crops cured, the grapes ought to average better than ever before and fetch better prices. Poor raisins do not pay to market.

For grapes previously quoted, contract prices are said still to hold good.

There are a number of inquiries from England about prunes. Dried apricots are meeting with a good demand, and, as for that, all new crop dried fruits are being inquired after by Eastern buyers, The market is strong.

The fruit market to-day was stronger. Dealers look for an active shipping demand to-morrow and Friday.

Vegetables.

Seasonable vegetables are coming in quite freely, causing more shading in prices. Early varieties are scarce, and when the quality is good, they fetch higher prices. Considerable complaint is heard of vegetables received by rail being more or less unmerchantable owing to extreme heat. At the close the weather is cooler, and it ought to come to hand in better condition.

Red onions are very low. The average price paid is 17½ cents per sack. Silverskin are easy under few receipts.

Potatoes have held up well, although at the close a weaker feeling set in under free receipts and a selling pressure to save expenses. A better shipping demand is expected to set in from Texas and other demand States. This year the potatoes in the central and northern counties are fair, but in the southern counties, buyers say they are, as a rule, poor.

Live Stock.

The consumption of all kinds of meats is light in this and neighboring cities, owing to free supplies and lower prices for fruit and vegetables. Hog product has advanced, which ought to create a better demand with farmers for mutton sheep, calves and hogs.

Miscellaneous.

The poultry market cleaned up during the holidays, and that now coming to hand finds a ready market at an advance in prices. It is said that two carloads of Eastern are due to arrive at the close of the week. It is claimed that these will be placed without disturbing values much. There is a great scarcity of choice, well-conditioned poultry.

A very strong bear pressure on hops continues to be made by dealers. So far as we are able to learn, this pressure is not warranted by crop advices, but perhaps it is done so as to buy cheap, well knowing that better prices are apt to rule.

Wool continues to move off freely. A lack of assortments is severely felt. Eastern advices indicate better prices; notwithstanding, manufacturers continue the practice of buying in a hand-to-mouth way.

New crop honey is coming in more freely, and better prices rule. The crop throughout the United States, it is now claimed, will be short.

Hams are higher, and bacon and lard are strong.

Lima beans are advancing. Contracts for new crop have been made in Ventura county at 2½ cts. per pound. The crop this year will be light.

From reliable advices up to June 15, the following summary tonnage movement is compiled:

	On the way 1892.	On the way 1891.	In port 1892.	In port 1891.
San Francisco	252,129	319,209	*172,521	41,894
San Diego	12,715	25,279	4,019	.....
San Pedro	9,131	12,715	....	19,761
Oregon	57,098	29 275	23,212	
Puget Sound	28,003	27,859	.....	
Totals	359,076	414,337	199,752	61,655

*Engaged for wheat, 1892, 47,724; 1891, 25,409.

The statistics of produce exports from this port from July 1, 1891, to July 1, 1892, compiled from the most reliable sources aggregate as follows:

	1891-92.	1890-91.
Wheat, ctls	12,835,424	13,829,947
Flour, bbls	1,070,517	1,183,026
Barley, ctls	1,110,474	316,178

General Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, July 6, 1892.

BEANS AND PEAS.			
Bayo, ctl	2 00	@	2 15
Butter	2 50	@	3 05
Pea	2 20	@	2 70
Red	2 00	@	2 20
Pink	2 00	@	2 10
Small White	2 20	@	2 55
Large White	2 20	@	2 45
Lima	2 45	@	2 45
Bld Peas, blk eye	3 00	@	3 30
Do green	1 50	@	2 75
Do Niles	1 30	@	1 40
Split	4 50	@	5 50
BUTTER.			
Cal. Poor to fair, lb	15	@	—
Do good to choice	17	@	—
Do Gilt edged	—	@	20
Do Creamery rolls	—	@	20
Do do Giltedge	—	@	21
Eastern	—	@	—
CHEESE			
Cal. choice cream	7½	@	—
Do fair to good	7	@	—
Do gilt edged	—	@	8½
Do skim	5	@	6
Young America	—	@	9½
EGGS.			
Cal. "as is" doz	16½	@	18
Do candled	18	@	20
Do choice	21	@	22
Do fresh laid	23	@	24
Do do selected	25	@	26

Outside prices for selected large eggs and inside prices for mixed sizes—small eggs and hard to sell.

FEED.			
Bran, ton	17 50	@	18 50
Feedmeal	26 00	@	28 50
Gr'd Barley	21 00	@	23 00
Middlings	20 00	@	21 50
Oil Cake Meal	— —	@	25 00
Manhattan Food ₩ cwt.	7 50		
HAY.			
Wheat, per ton	11 00	@	—
Do choice	— —	@	14 00
Wheat and Oats	10 00	@	12 00
Wild Oats	10 00	@	— —
Cultivated do	10 00	@	— —
Barley	10 00	@	12 00
Alfalfa	8 00	@	10 00
New Wheat	10 00	@	12 50
Do Wheat & Oat	9 00	@	11
Do Oat	6 00	@	10 00
Do Alfalfa	7 00	@	9 00
Straw, bale	40	@	50
GRAIN, ETC.			
Barley, feed, ctl.	83¾	@	91½
Do Choice	92½	@	96¼
Do Brewing	1 00	@	—
Do do Choice	1 05	@	—
Do do Giltedge	1 10	@	—
Do Chevalier	1 05	@	1 40
Do do Giltedge	1 45	@	1 50
Buckwheat	—	@	—
Corn, White	1 27½	@	—
Yellow, large	1 22½	@	—
Do small	1 27½	@	—
Oats, milling	1 50	@	—
Feed, Choice	1 45	@	—
Do good	1 37½	@	—
Do fair	1 32½	@	—
Surprise	1 55	@	—
Black Cal	—	@	—
Do Oregon	1 32½	@	—
Gray	1 32½	@	—
Rye	1 20	@	—
Wheat, milling.			
Gilt edged	1 47½	@	—
Do Choice	1 45	@	—
Do fair to good	1 41½	@	—
Shipping, cho'ce	1 40	@	—
Do good	1 38¾	@	—
Do fair	1 36½	@	—
Common	1 33¾	@	—
Sonora	1 33¾	@	1 40
HOPS.			
1891 Choice to Ex.	25	@	—
Fair to Good	22	@	—
FLOUR.			
Extra, City Mills	4 65	@	4 75
Do Country Mills	4 50	@	4 75
Superfine	2 75	@	3 10
NUTS—JOBBING.			
Walnuts, Cal. lb	4	@	—
Do Choice	6	@	—
Do paper shell	7	@	—
Almonds, soft shl.	10	@	—
Paper shell	12	@	—
Hard Shell	6	@	7½
Brazil	6½	@	8
Pecans small	11	@	13
Do large	14½	@	16
Peanuts	1½	@	3
Filberts	10½	@	12½
Hickory	7	@	8
Chestnuts	11½	@	16
ONIONS.			
Silverskin	40	@	55
POTATOES.			
Early Rose, ctl.	55	@	75
Do do in boxes	75	@	1 15
Peerless	65	@	85
Do in boxes	70	@	1 00
Garnet Chilies	60	@	90
Burbank Seedlings	60	@	85
Do do in boxes	75	@	1 15
POULTRY.			
Hens, doz	7 50	@	9 00
Roosters, old	6 50	@	7 50
Do young	7 50	@	10 00
Broilers, small	2 50	@	4 00
Do large	5 00	@	6 00
Fryers	6 50	@	7 50
Ducks	4 00	@	5 00
do, large	5 50	@	6 00
do, extra large	6 50	@	7 00
Geese, pair	1 50	@	1 75
Goslings	—	@	—
Turkeys, Gobl'r.	19	@	21
Turkeys, Hens	16	@	19
Manhattan Egg Food ₩ cwt.	11 50	@	—
PROVISIONS			
Cal. Bacon, he'vy, lb	10½	@	—
Medium	11½	@	—
Light	13	@	—
Lard	9½	@	12
Cal. Sm'k'd Beef	11½	@	—
Hams, Cal salt'd	11½	@	—
do Eastern	14½	@	—
SEEDS.			
Alfalfa	9	@	12½
Clover, Red	14	@	15
White	20	@	—
Flaxseed	2 00	@	2 25
Hemp	3½	@	4
Mustard, yellow	3½	@	4
do Brown	3	@	3½
WOOL.			
SPRING, 1892.			
Humb't & Men'cino	17	@	21
Sac'to valley	16	@	—
S Joaquin valley	11	@	16
Cala'v & F'th'll.	16	@	21
Oregon Eastern.	12½	@	19
do valley	18	@	23
So'n Coast, def.	10	@	12
Nevada (State).	15	@	19
HONEY.—1892 CROP.			
WhiteComb, 2-lb	8	@	11
do do 1-lb frame	10	@	13
White extract'd	6½	@	7
Amber do	5½	@	6
Beeswax, lb	25	@	28

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, July 6, 1892.

Limes, Mex	4 00	@	5 00
Do Cal	—	@	—
Lemons, box	1 50	@	4 00
Do Sicily	5 00	@	6 00
Oranges, Seedlings	1 25	@	2 25
Do Navels	2 50	@	4 50
Oranges frosted and poor sell at a decline of $1@$1 50 per box on the above quotations.			
Strawberries, per chest—			
Longworth	7 00	@	8 00
Sharpless	5 00	@	7 00
Gooseberries, lbs	4 00	@	7 00
Raspberries, ch.	5 00	@	7 00
Currants chest	5 00	@	7 00
Peaches, box	50	@	75
Do in bkt	50	@	80
Bl'kberries ₩ ch	4 00	@	6 00
Figs, blk box	50	@	1 00
Do White do	25	@	75
Apples, com. bx	50	@	1 00
Do Red Astrachan	1 00	@	1 25
Prunes, Tragedy	65	@	85
Plums, Duane's Purple	70	@	1 00
Pears, Dearbo'ns Seedling	1 00	@	1 25
Do Bartlett	1 00	@	1 75
Apricots, pr box	30	@	50
do, per lb	1½	@	1¾
Cherries, box Black	75	@	85
Royal Ann	70	@	1 00
Beets, sk	—	@	1 00
Carrots, sk	50	@	—
Okra, dry, lb	15	@	—
Parsnips, ctl	—	@	1 25
Peppers, dry, lb	10	@	—
Do green, box	50	@	75
Turnips, ctl	50	@	—
Cabbage, 100 lbs	40	@	50
Garlic, lb	2	@	3
Squash, Sum, bx	20	@	35
Tomatoes, box	75	@	1 25
Peas, green, sk.	50	@	75
String Beans	2	@	3
Cucumbers, box	40	@	60
do Bay	75	@	1 00
Mushrooms	30	@	50
Egg Plant, lb	17½	@	20
Green Corn, sk.	—	@	—
Do sweet ₩ sack	75	@	1 25
Do swt Bay ₩ dz	15	@	20

Continued on next page.

Live Stock.

BEEF.		MUTTON.	
Stall fed	5 @ –	Wethers	7 @–
Grass fed, extra	5 @ –	Ewes	6½@–
First quality	4 @ –	Do Spring	8 @–
Second quality	–@ –	HOGS.	
Third quality	3½@ –	Light, 99 lb. cents	5½@ –
Bulls and Thin Cows	2 @ –	Medium	5½@
VEAL.		Heavy	5 @ –
Range, heavy	4 @ –	Soft	4½@ –
Do light	5 @ –	Feeders	3½@ –
Dairy	5 @ –	Stock Hogs	3½@ –

Grain and Wool Bags.

Calcutta, spot	7 @	7¾
Wool Bags	36@	38

Auction Sales of California Fruits.

At New York.

June 29.—Two carloads: Montagamet Apricots $2 45; Royal, $1.25@1.30; Alexander Peaches, $1.35@1 75; St. Catherine Plums, $2.75; Royal Native, $2.25@2 75. Some fruit overripe and sold for less.

June 29.—Two carloads: Royal Apricots sold for 95c.@$1.60; Montagamet Apricots, $3 45; Alexander Peaches, $1.30@2.35; Royal Anne Cherries, $2 10@2.20; Republican Cherries, $2.55; Royal Native Plums, $2.40@2.45; Clyman Plums, $2.90. Gross sale of both cars, $3,510.

June 30.—Two carloads: Royal Apricots, $1.30@1.35; Alexander Peaches, $1.35@1.50; St. Catherine Plums, $2.65@2.75; Royal Native Plums, $2.40. Some fruit which arrived in bad condition sold for less.

June 30.—Three carloads: Royal Apricots, 70c@$2.66; Alexander Peaches, 1.15@1.75; Tragedy Prunes, $3.05; Koenig Claude Plums, $2.40; Royal Native Plums, $2.57; Figs, $1.50. Gross sales of three cars, $1,460.

July 1.—Five carloads: Royal Apricots, 75c@$1,25; Moorpark Apricots, $1@1.10; Alexander Peaches, $1.20@1 90; Tragedy Prunes, $1.30@3.65; Royal Native Plums, $2 05@2 90; Figs, $3.60; Clyman Plums, $2.05. Gross sale of five cars, $6,087. New York dispatch reads: Raining very hard; weather bad.

July 2.—Three carloads: Royal apricots, $1@1.35; Alexander peaches, $1.30@1.90; Garland peaches, $1.65; Hale's Early peaches, $1.80; Briggs' Early May peaches, $1.55; St. Catherine plums, $3; Simoni prunes, $6.40; Royal Native plums, $3.10@3.25; Peach plums, $3.45; California figs, $2 30@2.75.

July 5.—Three carloads: Peach plums, $6.50; Tragedy prunes, $4@6.50; Jackson plums, $2.70; Black figs, $3.75; Apricots, $1.05@2.65; Royal Native plums, $2.05 @$3.

At Chicago.

June 29.—Two carloads: Royal apricots, $1.10@1.20; Alexander peaches, $1.35@1.50; Hale's Early peaches, $1.25; Briggs' Red May, $1.25; Garland, $1.14; Royal Native plums, $2.30; St. Catherine, $2 35; Brunswick figs, $1.50. Some fruit in bad order sold for less.

June 29.—Two carloads: Royal apricots, 75c@$1.75; Alexander peaches, $1.20@4; Royal Anne cherries, $1.20@1 70; Clyman plums, $2.25; Tragedy prunes, $4@4 05; Blackberries, 80c.; figs, $2: Abundance plums, $4.

June 30.—Six carloads: Goodell Refrigerator Car No. 16,266 sold for $3,732 gross. Black Republican cherries in this car sold for $1.85@2.50; Royal Anne cherries, $1.65@2.25; plums, $1.85. Prices realized for other varieties of fruit were as follows: Apricots, $1 10@2; peaches, $1.25@1 60; Cherry plums, $1 35 for 10-lb boxes, 75c. for half boxes; Madeline pears, $1.40@1.60; Tragedy prunes, $3.30@3.80; Royal Native plums, $2@2.80; Clyman plums, $1.85; Bartlett pears, $4.

June 30.—One carload: Alexander peaches, $1.40; Early peaches, $1.50; Briggs May peaches, $1.20@1.26; Cherry plums, $1 85; Peach apricots, $1.05; Royal apricots, $1. Some fruit overripe sold for less.

July 1. Two carloads: Tragedy prunes, $3.85; Alexander peaches, $1.20@1.50; Early May peaches, $1.25@1.40; Garland peaches, $1.40; Royal apricots, $1.10@1.40; St. Catherine plums, $2.85.

July 1.—Two carloads: Alexander peaches sold for $1.20@1.65; McKevitt's Early peaches, $2.65; Royal Native plums, $2.60@2.70; pears, $1.55; Royal apricots, $1.00@1.40.

July 3.—Three carloads: Royal Apricots, 90c@$1.30; Alexander peaches, $1.25@$1.50; Figs, $1.60; Royal Native plums, $2 30@2.90; Washington plums, $3.75; Peach plums, $2.60@3 75; Bartlett pears, $4; Tragedy prunes, $2 70@3.45; apples, $1.10.

July 2.—Two carloads: Cherries averaged $1.95 per box; Alexander peaches, $1.30@1.45; Hale's Early peaches, $1.40@1.37; Early May peaches, $1.25@1.30; Royal apricots, $1@1.35; Smith's Triumph apricots, $1 65; Newcastle apricots, $1.05; Moorpark apricots, $1.30@1.58; Cherry plums, $2.10; Bartlett pears, half-boxes, $2; California figs, $1.53; Black figs, $1.45.

July 5.—Two carloads: Royal apricots, $1.15@1.30; Triumphs, $1.30; Moorpark apricots, $1.15@1.40; Alexander peaches, $1 35@1.60; Hale's Early peaches, $1.35@1.60; St. John peaches, $3@3.25; Early Crawfords, $3.30; Royal Native plums, $2.45@2.55; Peach plums, $2.85@3 35; Duane's Purple plums, $3.25; St. Catherine's, $2.45@2.55; Tragedy prunes, $3@3.25; Bartlett pears, $3.40; Figs, $1.05@1.50.

July 5th.—Four carloads: Bartlett pears sold at $3.20@3.55; Clapp's Favorites, $3.50; Beurre Giffords, half boxes, $1.40@1.55; Royal apricots, $1.15@1.35; St. John peaches, $2.45@3.25; Alexander peaches, $1.30@1.60; Hale's Early peaches, $1.35; Figs, $1.60; Peach plums, $2.60@3.35; Tragedy prunes $2.75@3.55; Plums, $3.45; Tragedy prunes, $2.75@3 55; Royal Native Plums, $1.95@2.25 for very small stock, while good size stock brought $2.40@2.50; Purple Duanes, $2.60; Moorpark apricots, $1.15@1.25; Governor Garland peaches, $1.30.

At Minneapolis.

June 29th.—One carload: Plums sold for $2; peaches, $1.40@1.55; Apricots, $1.35@1 45.

June 29.—One carload: Royal apricots, $1 20; Alexander peaches, $1.40; Hale's Early peaches, $1.40; Cherry plums, $1.46; Centennial cherries, $1.25; Royal Anne, $1.25.

June 30.—One carload: Apricots averaged $1; peaches, $1.20@1.25.

July 1.—One carload: Peaches, $1.35@1.50; Apricots, $1@1.15; Plums, $2@2.30; Figs, $1.20.

July 5.—One carload: Peaches, $1.45@1.75; Apricots, 90c@$1 15.

At Boston.

June 30.—Two carloads: Apricots averaged $1.36; Peaches $1.86; Koenig Claude plums, $2.87; Clyman plums, $2.75; Tragedy prunes, $1.25; Figs, $3.12.

July 1.—One carload: Apricots sold to average $1.15@1.17; Peaches, $1.77; Royal Native plums, $3 62. Gross sale of car, $1,685. Weather bad.

July 2.—One carload: Royal apricots, $1.24@2.05; St. Catherine plums, $2 69@5; Simoni prunes, $7.25; Royal Native plums, $3 49; Alexander peaches, $1.24@2.75; California figs, $1.85@2.15; Newcastle apricots, $2.25.

At Other Cities.

ST. PAUL (Minn.), July 1.—One carload: Royal Apricots, $1.10@1.40; Alexander peaches, $1.50@1.75; Royal Native Plums, $2.10@2.30; Tragedy prunes, $2.90.

PHILADELPHIA, July 1.—One carload: Royal Native Plums sold to average $3; Clyman plums, $2.50; Royal apricots, $1.50r Alexander peaches, $2.

KANSAS CITY, July 1.—One carload: Peaches, $1 60@$1.75; Apricots, $1 50.

OMAHA, July 2.—One carload: Peaches, $1@1.50 per box; Apricots, $1.20@1.50 per crate; Cherries, $1.50@1.75 per box.

TESTING EMERY WHEELS.—A mechanic recently learned a lesson about emery wheels by nearly getting killed by the bursting of one of them. The wheel was left running while he went out of the room on an errand. As he came back, a piece of the wheel came to meet him, passing within a foot of his head. Luckily no damage was done except to a window, the sash and glass of which went out of doors in company with the broken wheel. There is no need of having such a thing happen. Let a man take an emery wheel in his hand, place the forefinger of his left haud in the mandrel hole of the wheel, with a small wooden mallet (never use a hammer) tap the wheel lightly, and note the sound given forth by the blows. A crack can be quickly detected in this way, and if every wheel was thus tested when it came into the shop, and if the practice were followed up every time a wheel is placed upon the mandrel, there would be no accidents from broken emery wheels.—Woodworker.

CYPRESS TIMBER.—Cypress timber grows very tall, straight and thick, in isolated patches or groups called "brakes," in the shallow swamps, lakes and bayous, usually in from one to five feet of water, and, under favorable conditions, attains an enormous size. The trunk is straight and without limbs often to a height of 75 feet or more, and large trees measure 120 feet in height and 25 feet and over in circumference about the base, which at the ground is often three or four times the diameter of the trunk. Authorities disagree as to the varieties, some claiming that there are three kinds—red, white or yellow, and black—while others claim that they take their names from the color of their heart wood, which varies according to soil and conditions. The white or yellow variety grows largely in Arkansas, while the red and black varieties are found in Louisiana and other Gulf States.—West Coast Lumberman.

INDIA RUBBER PAVEMENT.—A German engineer has paved a bridge with india rubber, and the result has been so satisfactory that it is to be applied on a larger scale. It is found to be more durable than asphalt, and not slippery. "A section of roadway," says the *Railway Review*, "under the gate leading to the departure platform of the St. Pancras terminus, London, has for some years past been paved with india rubber, and many people must have been pleasantly surprised at the deadening of sound when passing over it on wheels, and at the grateful elasticity to the tread when traversing it on foot."

A SEWING MACHINE has been invented which stitches easily and rapidly through layers of leather five-eighths of an inch in thickness, this having been accomplished on a first exhibitory trial; in a second trial, stitches were made evenly and rapidly through a piece of bird's-eye maple three-eighths of an inch thick, and in a third test, the still more remarkable feat was achieved, viz., that of sewing through a layer of brass one-eighth of an inch thick, placed between pieces of leather.—Manufacturers' Gazette.

GLASS BRICKS.—For some time past, transparent glass bricks have been let into the walls to afford light at places where a window would interfere with the architectural plan. But now it is proposed to cast glass, not necessarily transparent, into large blocks for buildings. The material is practically indestructible, perfectly nonabsorbent, and, therefore, damp proof in a manner which few bricks are, and in this way coarse glass of this kind could be made nearly as cheap as concrete, stone or baked clay.

A DOG belonging to Hercules Tyrius was one day walking along the seashore, when he found and ate a murex, a species of shellfish. Returning to his master the latter noticed that the dog's lips were tinged with color, and in this manner Tyrian purple was discovered. The color was used in the robes of emperors and nobles, and the expression "born to the purple" meant that the person was of high birth.

WE call attention of our readers to the advertisements appearing in our paper from time to time over the signature of Smith's Cash Store. This firm has a large country trade, and can be depended upon to fill all kinds of country orders promptly and at reasonable prices.

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PASTEURIZED MILK.—All methods of sterilization that are in use in this country have the disadvantage of giving to the milk the taste which is peculiar to boiled milk, and also of rendering it less easily absorbed by the body. In France and Germany a method has been adopted which accomplishes the purpose without injuring the taste of the milk. Machines are in use in Paris and some other cities which will heat great quantities of milk to a temperature of about 155° Fahr. for a few minutes, and then cool it rapidly to a low temperature. The method has been called the pasteurization of milk. It does not kill all the bacteria, but it does destroy so many of them that it greatly increases the keeping properties of the milk. Moreover, it almost entirely destroys the danger from disease germs in milk, since nearly all forms likely to occur in milk are killed by this temperature. The advantage of this method is that the temperature of 155° Fahr. does not give to the milk the taste of boiled milk, which most people find unpleasant, and does not render the milk difficult of digestion. These pasteurizing machines have not yet been introduced into this country, and the opportunity exists for some one to develop a thriving business by furnishing pasteurized milk in our large cities. A little experience with its superior keeping properties, and a little knowledge of its great wholesomeness, would soon create a demand for it in America, as it has already done in the larger cities of France and Germany.—Prof. H. W. Conn in Popular Science Monthly.

Monte Vista Resort.

This well established "Summer Resort" opened May 27th. A new feature of the present season is increased accommodations and the opening of a Medical Department Dr. Munson, resident physician of "Hotel Raymond," Pasadena, will spend the interim of said hotel seasons at Monte Vista. She is a medical graduate of wide celebrity in southern California, making chronic diseases a specialty, to which she brings all latest discoveries. Years of study, and with one of the finest batteries on this coast, she has become an expert in its application to disease. Wonderful success attends her treatment of so-called incurable diseases by discovering that their cause is often the chronic effects of poison oak or ivy which she fully eradicates from the system.

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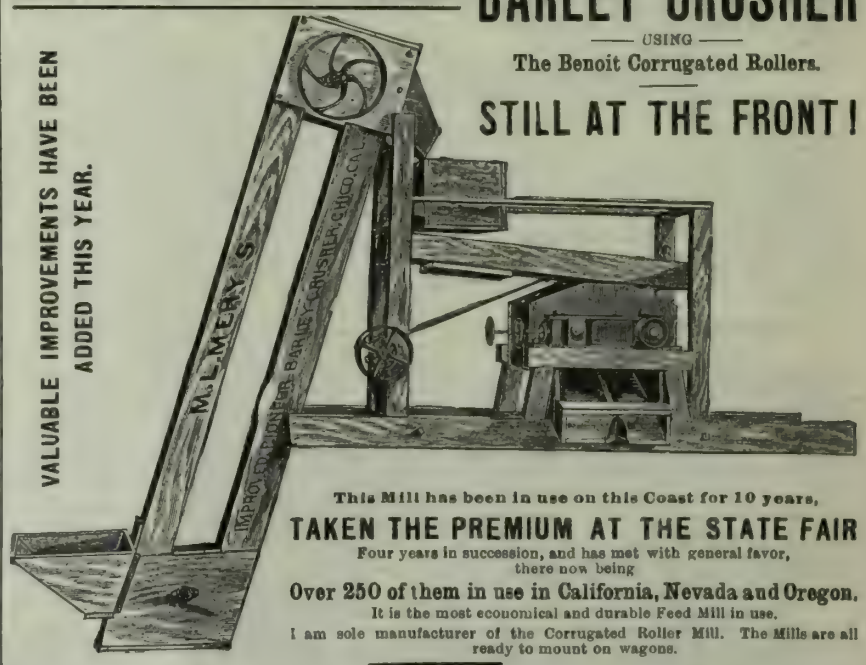

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GRAINLAND, BUTTE CO., CAL., June 9, 1887.
MR. M. L MERY—Dear Sir: We have used one No. 2 Roller Barley Crusher now for eight years and have used it steady during that time; have crushed 45 tons a day and the Crusher is as good to-day as when it came out of your shop. I am satisfied that it is the best mill made. You may reconstruct this testimonial to the best advantage for you and sign our names, for you cannot overrate the merits of your mill. F. E. REAM, JNO. P. SUTTON.

DURHAM, May 21, 1887.
MR. M. L. MERY—Dear Sir: In reply to yours of the 19th, would say that I crushed from two to two and a half tons per hour, but could crush three and a half tons if my elevators were large enough to carry the barley from the machine. The No. 1 machine I used at Gridley was run on a sack a minute, and if we got behind we could run through five tons an hour and do good work. The machine I use here is a No. 2. Yours, WM. M. TAYLOR.

I thank the public for their kind patronage received thus far, and hope for a continuance of the same.
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Spontaneous Ignition of Wood Pulp.

Some interesting experiments were recently made in Boston by Edward Atkinson, to determine some questions relating to the spontaneous ignition of wood pulp. According to an exchange, the experiments were made in an Alladin oven, with a thermometer to indicate the temperature. Two slabs of wood pulp were tied in the oven, one in contact with a loose iron shelf, the other without any contact. The first ignited at 370, the last at 430 degrees. In two previous tests, the oven was open when the thermometer reached 425 degrees, but the pulp did not take fire until the introduction of air, when it ignited instantly. In speaking of the matter, Mr. Atkinson says:

"We have been able heretofore to imitate spontaneous combustion by putting animal or mineral oil on fibrous substances; we have tried experiments by mixing mineral or paraffine oil with animal oil to determine the exact point or proportion at which the paraffine or mineral oil will prevent oxygenation of animal or vegetable oil, but there has been no apparent means of making this oxygenation visible until the present test. This test may explain the cause of many fires. Heretofore there has been no knowledge of the ignition by rapid oxygenation of a highly heated substance, mostly carbon or almost pure cellulose, without any admixture of grease or chemical. It would appear that finely divided and moderately heated carbonaceous material, holding air in its pores, may ignite at a relatively lower temperature than ordinary wood. It would seem well, therefore, to avoid the use of sawdust for sweeping floors, and its storage near hot kitchens. Ice houses are known to be bad risks. A little gudgeon grease in the sawdust is said by some to explain the reason."

AT THE WORLD'S FAIR.—Sunday's issue of the New York *Herald* contains an article on the World's Columbian Exposition. Speaking of the electrical features of the Fair the article says: Twenty years ago little was known of electricity outside of the telegraph. At this exposition it requires a building of nearly six acres to hold the different electrical inventions, and Edison alone will use up about an acre of space. An electricity firm of Berlin wants nearly an acre, and this firm has offered to spend $200,000 on its electrical exhibit. Edison is getting up new matter for the Fair, and he proposes to show his kinetograph and other things which will be new. The exhibition of electricity in lighting and in power production will be shown in the different buildings in a way never dreamed of before. The electric plant of the World's Fair will cost more than $1,000,000, and electricity will turn night into day. The electrical water display will surpass anything ever attempted. The great basin which runs from the lake to the Administration building will be encircled with electric lights, and lights will be sunk under the water, and the effect will be a lake of gold. The fountain will flow over electric rays of all the colors of the rainbow, and there will be search lights, arc lights and all sorts of electrical appliances, even the most wonderful fireworks operated by electricity and made to go off by the playing of the keys of a piano-like instrument, so that they will change at the will of the player and produce wonderful fire pictures.

THE ALBERT MEDAL.—Mr. Edison has been awarded the Albert Medal of the Society of Arts for the present year, in consideration of the distinguished services rendered by him to the progress of electric-lighting, telegraphy and the telephone. This medal was instituted in 1862 as a memorial of the Prince Consort, for 18 years president of the society, and is awarded annually for distinguished merit in promoting arts, manufacturers, or commerce. It was first awarded, in 1864, to Sir Rowland Hill, and among the distinguished men of science who have since received it are included the names of Faraday, Whitworth, Liebig, Lesseps, Bessemer, Siemens, Armstrong, Thompson, Joule, Hofmann and Helmholtz. In 1887 it was presented to the Queen on the occasion of her jubilee. This is the second occasion on which it has been awarded to an American. In 1884 it was given to Mr. (not, as is often stated, Captain) Eads, in recognition principally of his great engineering works at the mouth of the Mississippi.

THE experiment of the killing of cattle by electricity will soon be tried at the Aberdeen abattoir, where the electric plant is now being installed. If the experiment proves that this manner of killing cattle has no bad influence on the quality of the beef, the application of electricity will hereafter be general.

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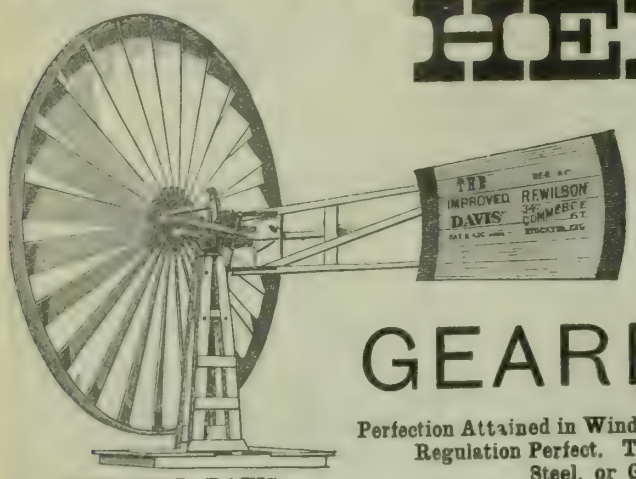

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2—TURNTABLE AND PLAN OF MOTION.—The turntable is made of one piece of gas pipe with a cast iron head, having a bearing **each side of the center**, thereby making every part firm and reducing friction to a minimum. Most other windmills have only a single bearing, causing friction, unusual wear on the front side of the lower box, and upper side of top box at rear, causing the gear to slip out of contact, breakage of cogs, and much annoyance and expense. The wheel makes two revolutions to one long stroke of pump, giving the piston the most correct speed possible, taking all jerk from the pump and working parts of the windmill. Some windmills make a reduction of motion of three and a half to one, which moves the piston of the pump so **slow** that when the leathers become slightly worn the pump will **not lift water**. It is **noiseless** when in operation. The wheel shaft, and crank shaft, are placed horizontal to each other, thereby avoiding the possibility of journals wearing and allowing the cogs to slip, or break, on account of increased play in journals. Provision is made for taking up all slack caused by use. The plan of motion and construction is such that it cannot well be described by words; it is simple, direct in action, and is pronounced by all a model of **Completeness, Ingenuity, Neatness, Strength and Durability.** The gearing is made broad-faced, and proportioned so that the wear is **distributed evenly** over the whole surface of said gearing. The cogs are arranged so that three and never less than two are in contact, thus avoiding all possibility of breakage of cogs.

3—THE VANE.—It is made of two arms of gas pipe to which the fan is securely riveted.

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To responsible parties who contemplate erecting a windmill, I will, on receipt of particulars as to amount of water required, depth of well, height water will be elevated, etc., ship one of my Hercules Windmills on 30 days trial, agreeing to receive the return of same and paying freight both ways should it fail to be and do as represented. If desired, I can attach either my Improved Davis or San Joaquin wheel, without additional expense.

In conclusion I will say that I am prepared to furnish any kind of a windmill that may be desired, and feel assured that I can give my customers better satisfaction than any person in my line of business, as my whole attention is given thereto.

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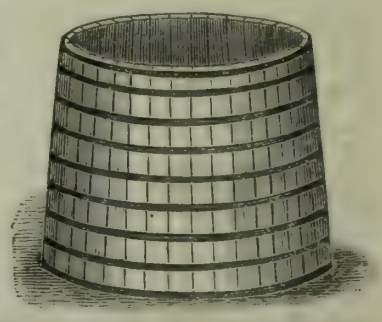

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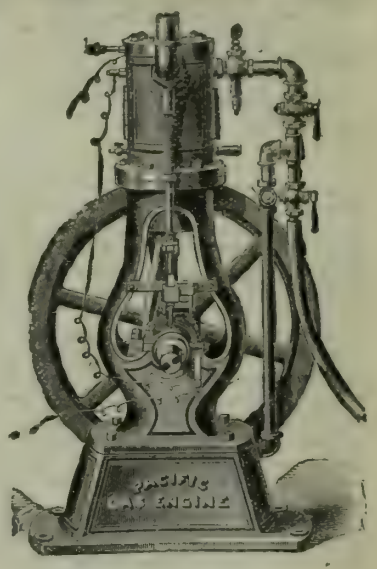

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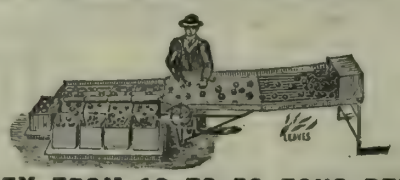

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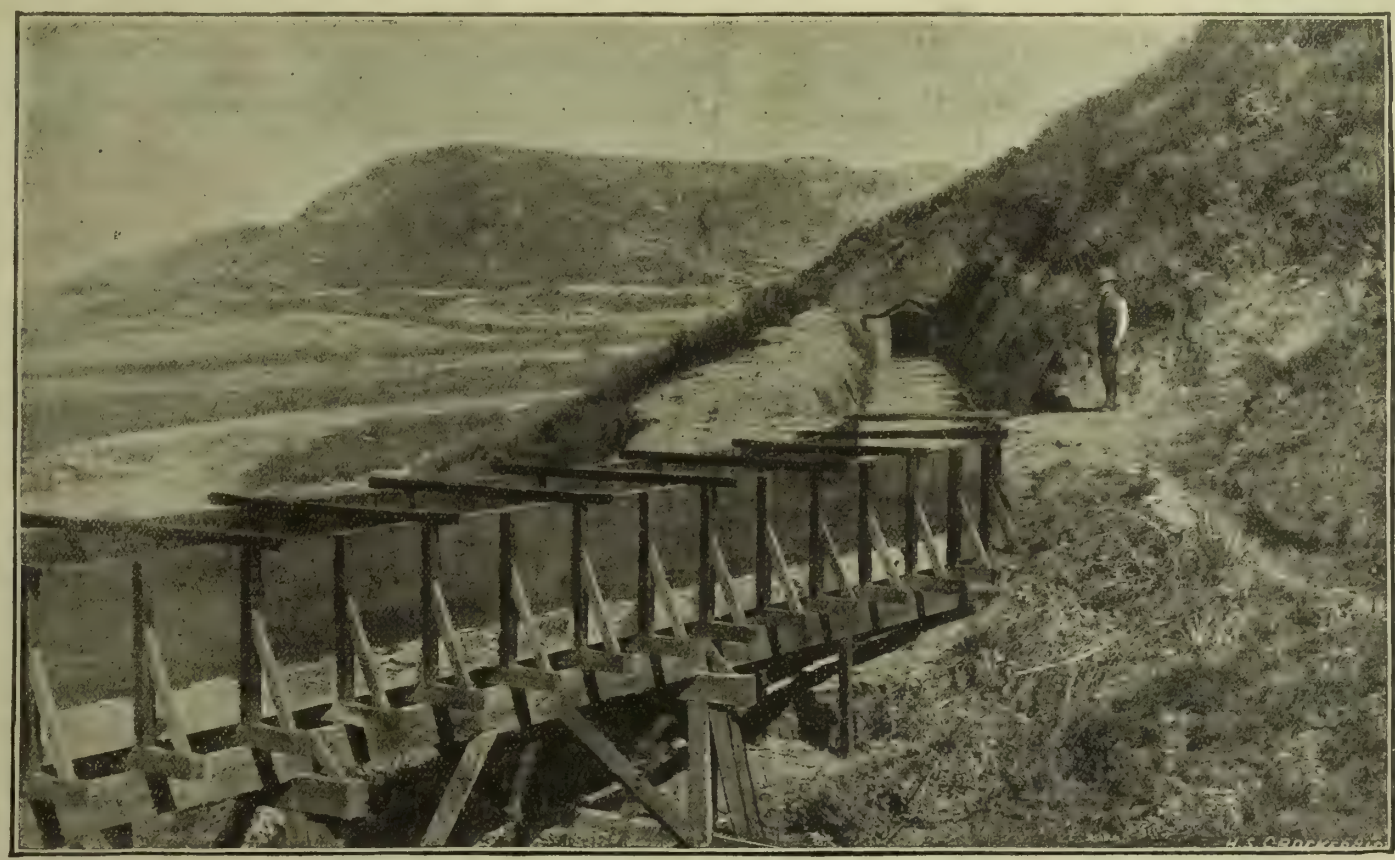
PACIFIC RURAL PRESS

Vol. XLIV. No. 3. SAN FRANCISCO, SATURDAY, JULY 16, 1892. THE DEWEY PUBLISHING CO., Office, 220 Market St.

An Irrigation Flume and Tunnel at Riverside.

Our illustrations have given from time to time glimpses of the various methods adopted by Californians to bring water from distant sources upon arid lands, and thus transform them into marvels of fertility and production. Thus simple in theory has been the method of the foundation of many of the most prosperous enterprises in Central and Southern California. The practical application of the method has been difficult, and, in many cases, has drawn heavily upon the resources of the capitalist and the engineer, but, fortunately, in most cases at least, the reward has been commensurate with the service and the sacrifice.

The engraving on this page is not typical of the difficult in engineering, and yet it must be counted interesting to contemplate the water crossing the depression in its trestle-supported flume, and then running through the brow of the bluff by tunnel, to flow again into flume or into hillside ditch, as the character of the surface determines.



THE GAGE CANAL AT RIVERSIDE—PASSING A BLUFF BY FLUME AND TUNNEL.

The picture represents a point upon the main canal of the Gage System at Riverside, San Bernardino county which is one of the most important and extensive system of canals in Southern California. Mr. Gage built the northern part of his main canal to irrigate some 6000 acres of land, lying east of, and above the flow of the upper canal of the Riverside Water Company. He subsequently purchased the tracts of land in Riverside, known as "Arlington Heights," and extended his canal along the foothills to a point about nine miles southwest of the business center of Riverside, thus enabling him to cover with water, an additional tract of some 6000 acres, making the entire area irrigable from this system some 12,000 acres. The supply of water for this canal is taken from artesian wells and the Santa Ana river. The canal runs southwesterly for a distance of five miles along the banks of the Santa Ana, receiving supplies from artesian wells bored so that their waters will discharge directly into the canal. The course is still southwesterly along the bluff bordering the Santa Ana river valley; crossing several large arroyos with flumes, and piercing the projecting points of the bluff with some 16 tunnels, until it enters upon the plains of Riverside, nearly 200 feet above the elevation of the canals of the Riverside Water Company.

After entering upon the plain, the canal runs in a southerly direction until it intersects the foothills, along which it closely follows in a southwesterly direction to its present terminus already stated. The water delivered by this canal to the lands along its course is distributed under the management or supervision of several corporations having their own reservoirs and pipe lines.

The development of wealth by this enterprise of Matthew Gage is one of the most interesting features of the progress of Riverside. Since its completion several years ago the productive area, population and prosperity of the region have been vastly increased.

A Commendable Work.—The State Board of Horticulture is about to make a very commendable effort, which we hope will yield satisfactory results. It is to prepare a comprehensive statement of the condition and extent of the fruit interests of the State. Secretary Lelong has sent out agents to different parts of the State for the purpose of obtaining a correct estimate of the amount of fruit produced in California. Prof. Allen will take the central coast counties, extending from San Francisco to San Luis Obispo, west of the Coast Range mountains. R. H. Hewett will attend to the entire southern part of the State. John Isaac will travel over the northeastern part of the State, the Sacramento valley and the counties east of the Sierra Nevada mountains. Mr. A. Craw will confine his work to Humboldt, Mendocino and Del Norte counties.

Fruit Studies.—Chemists Jaffa and Colby of the Agricultural Experiment Station at Berkeley, are proceeding with analyses of fruit specimens from different parts of the State. At present they are working Royal apricots from different parts of the State, so as to determine the composition of the same variety grown in different localities. Afterward, prunes and figs will be taken up. The University publications during the coming year promise to contain much of the chemical aspect of different California fruits.

Fixing a Minimum.

The idea upon which we favorably commented last week that the fixing of a minimum price by agreement among producers seems, upon further thought, to commend itself as perhaps the best first step to be taken toward cooperation among producers. We trust the more elaborate plans for cooperation will work themselves out successfully, and we believe some of them will do so, but where there is hesitation and distrust perhaps an agreement upon a minimum can be given wide support. If more can not be done at once, this act will certainly serve as a stepping stone to fuller understanding and cooperation hereafter.

We are interested to see that this idea is favored by F. H. Buck of Vacaville, a large fruit shipper and drier. If correctly reported, at a recent meeting in this city he said he did not believe a union of dried fruit growers practicable. If only a few of the driers worked together nothing useful could result. Such a union would not control prices, but would be the toy of the general market. If, by an agreement among driers, a minimum rate of sale for the various grades of fruit could be established, no further union or organization would be necessary. No union could prevent fruit-owners from selling for fancy prices if buyers could be found. But if a minimum was fixed and observed the Eastern buyers would be protected, and there would be no possibility of ruinous underbidding and cut-throat transactions.

Of course, when a body of producers agree to refuse any price below a minimum to be afterward agreed upon, they have perhaps only reached the outer borders of the question at issue. What shall the minimum be? may, after all, be a rock upon which the undertaking will fall to pieces. We hope not, however. The Fresno raisin producers will meet to establish their minimum on Saturday of this week and their success in that effort will be significant. The cost of producing a raisin has perhaps been as closely figured down as anything in our fruit production, and consequently a minimum can be more easily and confidently set than in some other lines of production. The first effort is well placed. Let us see what the Fresno people can do for themselves and for the State by their action on Saturday.

In some portions of the Province of Quebec prayers are being offered for rain, while in other portions supplications are made for a cessation of an excessive downpour.

PACIFIC RURAL PRESS.

BY THE DEWEY PUBLISHING CO.

Office, 220 *Market St.; Elevator*, 12 *Front St., San Francisco., Cal.*

ANNUAL SUBSCRIPTION RATE THREE DOLLARS a year. While this notice appears, all subscribers paying $3 in advance will receive 15 months' (one year and 13 weeks) credit. For $2 in advance, 10 months. For $1 in advance, five months. Trial subscriptions for three months, paid in advance, each 60 cents.

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One inch	1.50	5.00	13.00	42.00

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Our latest forms go to press Wednesday evening.

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ANY subscriber sending an inquiry on any subject to the RURAL PRESS, with a postage stamp, will receive a reply, either through the columns of the paper or by personal letter. The answer will be given as promptly as practicable.

ALFRED HOLMAN.....General Manager

SATURDAY, JULY 16, 1892.

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BUSINESS ANNOUNCEMENTS.

[NEW THIS ISSUE.]

Wagons—Deere Implement Co.
Farming Land—Kern County Land Co.
Buggies, Carts, Etc.—California Wagon and Carriage Co.
Shorthorn Bulls—Robert Ashburner, Baden.
Decoration Goods—F. E Sadler.
Wood Preservative—Carbolineum Wood Preserving Co.

☞ *See Advertising Columns.*

The Week.

We desire to call attention most prominently to an affair of our own, to wit, the letters which should be mailed to us on August 1st upon this subject:

AUGUST.—FRUIT-DRYING AND RAISIN-CURING: Descriptions of all methods and appliances which are valuable either in sun-drying or machine-evaporating each and every kind of fruit; packing and marketing of products.

There will be three prizes for competition on this subject: First prize, $10; second prize, $5; third prize, one year's subscription to RURAL PRESS. As we have previously stated, these letters are not intended to be elaborately statistical or philosophical, but plain descriptions of how to do things by those who have themselves done them satisfactorily. Letters such as an inexperienced person would write for the information of those who are beginning are most likely to be widely useful.

We are preparing for publication the July letters on fruit-packing and shipping, and hope to present them in our next issue.

FRESNO FARMERS' INSTITUTE.—The next meeting of the Fresno Farmers' Institute will be held at Sanger on July 20th and 21st. It is contemplated to make alfalfa-growing, and the products which can be produced thereby, a leading subject at the Sanger meeting. It is being clearly seen that the great valley needs the development of other branches than fruit production, and alfalfa-growing has already yielded most satisfactory results. To discuss these results and the means by which they are attained will certainly be most important and profitable, and will, we hope, draw out large attendance at the Sanger meetings. Other subjects will be the representation of the county at the World's Fair, the raisin situation, etc.

CLYDESDALE OUTLOOK.—It is reported from east of the Rockies that there has been a decided improvement in the demand for Clydesdale horses during the past year. The active inquiry for Clydesdale mares during the past season has not been confined to beginners, but many of the oldest and most successful breeders have been liberal purchasers. The upward tendency in prices of well-bred Clydesdale stallions and mares gives increased confidence to breeders, who will not, for many years, be able to supply the large and growing demand for Clydesdale horses of approved form and breeding. This manifest and growing preference for home-bred stock is one of the most hopeful and encouraging indications for increased demand upon our breeders for stallions and mares at better prices.

Midsummer Day Thoughts.

Heat and moisture are the span with which the plant makes the race. Neither of these is broken to go single, and the most disastrous results follow the attempt to thus employ them. Wise is he who can keep the two well in hand and pulling evenly.

It is just at this time of the year that the garden shows most clearly how much the gardener knows and how well he puts his knowledge into practice. Nearly up to this time plants have been able to sustain themselves even on uncultivated soil by persistent root penetration; but now, from soil thus treated, surface evaporation, fed by capillary action, has drawn the moisture from such depth that all save tar-weeds and other such salamanders show their day is up. The aspect is more drear now than later, because the winds will whisk away the dead leaves, cast down the parched stems of the annuals, and clear the decks for another season's action. The arid surface is swept and garnished with the neatness of desolation.

How different is the aspect where heat and moisture have not been sundered, and how well rewarded the skill and diligence of those who preserve their union. The dark verdure of the alfalfa preserved by irrigation even on the driest soils, the rich foliage of well-cultivated orchard and vineyard, contrast strikingly with the arid plain. Hardly less marked is the contrast between gardens well and ill kept. How to have one's residence in the former rather than the latter environment, is a pressing question in a land with a rainless summer. How shall the grass be kept green and the foliage and blooming season of plant and shrub be prolonged until the early rains bring new beauty to replace the old?

Irrigation is the art preservative in this connection, but the demand upon its services may be much lightened if one knows how to irrigate and how to prolong the effects of the act. Though much has been said and written of the ineffectiveness and delusion of constant inadequate watering, there are still many who stand flirting the hose nozzle in the air, throwing a tantalizing mist upon the leaves of plants whose roots are being parched and torn in a baked and contracting soil. Every day, possibly twice each day, the operation is repeated, and yet the poor plant gets as little relief as the famished traveler from a mirage. With wise husbanding of resources, the plant checks the exuberance of its bloom; later still, it cuts its leaves of smaller pattern in a vain hope that help will come. But the hope is vain; parched petioles relax their hold upon the stem, famishing buds perish ere they unfold. Still appear, with religious regularity, the rainbow tints in the hose spray in rising and setting sun rays; still the humming-bird dashes through the mist in gladness; still in the heart of the gardener there is the approving song of conscience telling of duty faithfully performed. But all these joys are but mockery to the fainting, expiring plant. At last its distress is perceived, and in conscious innocence complaint is made of its perverseness in dying when so well watered. Evidently the trouble must be at the root the complainant declares. Evidently the trouble is at the root the pick-axe replies, as it brings to light roots dry as whip-cords encircled with a clod hard as adamant.

Too many of our gardens show how hollow and ineffective is what is called garden-watering. For all save the grass, it would perhaps be better if the hose nozzle had never been invented. If the price of the nozzle be invested in a hoe and the roll of hose be shouldered, with the hoe handle thrust through it, the plants will all smile as the purchaser comes through his garden gate. Let the hoe sink deep in the soil around the plant, and into the trench which runs from plant to plant, let the water flow until the ticker in the water meter beats the reveille. With the trenches full until the soil is deeply saturated, go and settle with the water company while the soil is drying until it falls apart freely at the touch of the hoe. Then with hoe and rake loosen the earth thoroughly below the bottom of the trench, so that it may not bake into clods on drying; fine and level the surface with the rake, and you have done more irrigation in a day than you could do in a thousand years with a nickel-plated nozzle.

With one who thus irrigates, there also dwells usually knowledge of the value of a mulch. If it be but the pulverization of the surface to a sufficient depth, it will serve a good purpose, but to cover such a properly prepared surface with a fine litter of well-rotted straw or manure or lawn clippings is to greatly prolong the retention of moisture, and consequently to postpone the time when a second trenching and soaking will be necessary. On heavy soils, sand, sifted coal ashes and like coarse material act finely as a mulch, and lighten the soil by subsequent working in. On a sail well mulched, too, one can often use the tabooed nozzle, if he is so inclined, providing the aim be at the earth and not at the sky, and the discharge be large enough for thorough soaking, not only of the mulch, but the soil beneath.

With adequate watering and mulching, the proper relations of heat and moisture can perhaps be better retained than in any other way, and plants thus treated will be the joy of the owner and the admiration of the neighborhood.

The Butter Industry.

The continued low range of prices for butter in our market causes surprise even to the best informed dealers. There cannot be the least question but the establishing of creameries has added largely to the output of choice to gilt-edged butter. The increase in the manufacture of better grades has been at the expense of the poorer grades, so that the increase in one is, to a great extent, neutralized by a decrease in the other. This but confirms a familiar law of trade regarding supply and demand.

The increased supply of creamery butter on this coast has cut off very materially the supply we formerly looked to the Central States to furnish, and greatly, so far this year, to consumers' advantage. If we had to look to the States east of the Rocky mountains for a large part of this summer's supply of the more choice grades of butter, the price here would have been largely increased, for advices from the large distribution cities at the East are confirmatory of a decided falling off in receipts. This decrease is said to be traceable to two causes, one of which was, during the spring months and extending well into June, the poor and also impassable roads in the rural districts, and the other to fewer cows milked. The heavy and almost unprecedented rains in the Central States made the roads so bad that it was next to an impossibility to go among farmers and gather cream. Now that the roads have improved, cream gathering has been resumed; and with good natural pasture for cows, the output of butter is very large. But it is conceded by the better informed that even with a continuance (which is not at all likely) for the next month or two of the present increase in the manufacture, the deficiency cannot be made good. In this opinion they are further strengthened by the accepted opinion that the general introduction of creameries has been followed by more thorough and scientific feeding, and also by testing the milk from each cow so as to keep only those whose milk gives the highest tests. This has been, and is still being done in European countries where creameries have taken strong hold. By this policy at the East there has been a weeding out of the poorer milkers, and they have not, as yet, been replaced, for it takes time to breed up to the standard now demanded by those dairyman and farmers who keep cows for all the profit that can be got out of them. This breeding calls for cows that give a good flow of rich milk and which also have carcasses and offspring that sell at the highest figures in the open market.

The decreased supply of butter at the East, while causing market values to appreciate, did not cause prices to advance as high as they should with all else equal. Probably one, if not the most important factor in keeping the market from going as high as the supply and demand under ordinary circumstances would send it, is the increasing numbers of oleomargarine factories at the East. In Chicago alone there are six factories, whose combined product is estimated to displace the product of over 300,000 cows. The *Mercantile and Exchange Advocate*, published at New York, in its issue of July 2d, claims that there are about 20 oleomargarine factories in the United States. The same authority boldly asserts, and the facts evidently bear it out, that under the present law there is a continued increase in the manufacture and sale of the article. This should be accepted as proof positive of the correctness of assertions heretofore made that the present national law bearing on oleomargarine is in the interest of rich and powerful companies. With a large and steadily increasing output of the stuff in the hands of rich combines, the profits in dairying are threatened to be reduced to such low percentages as to draw the dairying industry down to the lowest standard of agricultural enterprises. With this inevitable result staring in the face all that are directly and indirectly interested in dairying, it seems the height of wisdom that more energetic measures should be taken to fight to a successful issue the manufacture and sale of oleomargarine as now carried on.

SMITH'S IMPERIAL EARLY PEACH.—W. W. Smith of Vacaville kindly sends us a sample of his new early peach bearing the above name. The origin of this variety was fully described in the RURAL of August 1, 1891, and a photo-engraving was then given of a fruit-bearing twig. The peaches sent us this week run larger than those we had last year, and Mr. Smith assures us that this is true of the whole crop which the original tree bears this year. The value of the variety as the earliest good-sized freestone, at least as compared with any of the old varieties, seems clearly established. How it will compare with McKevett's Early, which originated in the same valley, is still to be determined. Mr. Smith writes us that he began picking his Imperial Early on June 27th, and will finish this week. He has no Crawfords ripe yet.

From an Independent Standpoint.

The attention of the country has been centered during the past week upon the little town of Homestead, Pa., near Pittsburg, where four thousand men employed in the Carnegie-Frick steel works are striking against a reduction of wages. The strike began some weeks back in the usual way, the mills shutting down because the men refused to accept the wages proposed. Although a few watchmen employed by the company remained in nominal charge of the establishment, it has in reality been in the possession of the strikers, who have attempted to intimidate the mill owners by threats of violence in case a movement should be made to start up with non-union workmen. This was probably the intention of the mill owners, or at least the strikers surmised it to be, and they announced ten days ago that they would hold the mills against any attempt on the part of the owners to occupy them. Early on Monday morning of last week a barge bearing two hundred Pinkerton guards, who, in the employ of the mill-owners, came up the river to the Homestead works and attempted to land. But a signal to arms was given before they reached the shore and the whole population of the town—men, women and children, to the number of twelve or fifteen thousand—began a defensive assault. Cannon which had been placed in position in anticipation of plans of the mill owners, poured hot shot upon the incoming force. Dynamite bombs, floods of burning oil and a hail of rifle balls added to the deadliness of the terrible defense. The tugboat which brought the barge to the landing was soon damaged and sought safety in flight, leaving its burden with its human cargo helpless and exposed to the fury of the mob. For eight hours the bombardment continued, and although the boat was housed in and protected on the inside by heavy steel plates, frightful havoc was done by chance shots through the port holes. The caged and helpless men tried to surrender, but the blood of the strikers was up and it was several hours before they would respect a white flag. There was a brief conference, in which the Pinkerton men (whose loss in killed and fatally wounded was already one-sixth of their number) agreed to surrender and abandon their arms in return for safe conduct through the town and to the railroad station. The promise was given and the men filed ashore unarmed, many of them blood-stained and suffering from wounds.

While the strikers were making such terrible havoc among the men imprisoned on the boat, the latter, though overmatched, were not wholly idle. They fired as best they could through the port-holes of their craft, and five dead and a greater number wounded among the strikers bore terrible witness of their prowess. This, of course, increased the rage of the mob, which lined the streets on both sides as the surrendered Pinkertons passed by each in charge of two deputies. The protection was not sufficient, for at every step in their march the mill-men kicked them and threw some of them down. From the dispatches of the day we quote:

The unfortunate Pinkertons begged for mercy. Some had pistol-shot wounds in their heads, and three had had their eyes shot out. Several could scarcely limp along. Blood was running in streams down their shirts, and they fairly yelled with pain. Fully 30 injured men were taken to the town hall. One had his eyes punched out by an umbrella in the hands of a woman. Sand was thrown in the eyes of others. Millmen struck the captives over the head and shoulders with rifles, inflicting serious and, in some cases, perhaps fatal injuries. As the procession reached the Amalgamated Association building, the prisoners had to remove their hats and salute the flag. When they removed their hats, men and women hit them with umbrellas and sticks and abused them in every way imaginable. There seemed to be a determination to kill the prisoners, and it was with the greatest difficulty that the fiendish crowd could be restrained. The men were finally locked up in the rink, where they were to be kept for the night. Thousands, however, gathered around the building, and the wounded men were kept in a constant state of terror. It was a long time before their wounds could be dressed.

After this terrible scene, the frenzied strikers returned to the barge and set it on fire, and in the light of its flames held such revelry as only the stories of savage warfare can parallel. Taking the whole proceedings of the day together, it was the most dreadful event outside of actual war ever witnessed in this country.

By this frightful exploit the strikers were left in absolute possession of the works, and they announced that they would hold them until the owners came to their terms. A strict military organization was maintained, with a double line of pickets, and all persons not known to be in sympathy with them were summarily ejected. Several newspaper reporters were roughly handled and only escaped with their lives. The mill-owners called upon the General Government for a force to protect them in their rights to their own property, but the President referred them to the Governor of the State, who in turn referred them to the Sheriff of the County who admitted himself to be helpless. After six days of this sort of thing, Gov. Pattison on Monday ordered out 8000 State troops who to-day (Tuesday) took possession of the works. Realizing that to oppose so strong a force would be suicide, the strikers received the troops cordially and at last there is peace. The owners say that they will start up their mills with men who have applied for work, but the strikers declare that "the troops will not remain always," and that as soon as the force is removed they will wreak vengeance on the "scabs," and, of course, no man can say what the end will be, but the opinion is general that the spirit of last Wednesday will be the spirit of the future and that more bloodshed is inevitable. Gov. Pattison was elected as a "friend of the workingman" and it is believed that he will withdraw the troops as soon as there is an appearance of peace and the outcome is looked for with the deepest concern.

In the meantime, the matter has been taken up by the politicians, and the opponents of the protective tariff are attempting to make capital out of it. "Here," they say, "is a sample protected industry, and here is an instance of how the workingman's interests are served by Protection. He no sooner is established in his work and in his home than the mill owners, who are profiting to the extent of millions through his toil, cut down his wages and send hired thugs to enforce his unwilling labor." Of course, much of this is the baldest buncombe. There has been no attempt to compel the mill-men to labor at reduced wages. The mill owners have only claimed the right to replace the strikers with other workmen who are willing to accept the wages offered. These wages the owners claim to be fair when the state of the market for manufactured steel is considered. They cannot pay more, they declare, and make a profit. As a matter of fact, only ten per cent of the four thousand men employed are affected by the cut, and they are the highest-priced men on the list. From a statement made by Mr. Frick on Friday last, we quote:

The skilled workmen in the Amalgamated Association worked under what was known as a sliding scale. As the price of steel advanced, so did the earnings of the men, and vice versa. While there was no limit to the advance, there was a point at which the decline stopped. Said Mr. Frick: "We believe that if the earnings can advance without limit, the workmen should be willing to follow the selling price down to a reasonable minimum, and instead of $25 as a minimum we fixed $23. The reason for this was that we spent large sums of money in the introduction of new machinery, by means of which the workmen were enabled to increase the daily output, thereby increasing the amount of their wages. Another point was the date of the expiration of the sliding scale. We asked that the date be changed from June 30th to December 31st, so as to enable us to make our estimates beginning January 1st, so that we would be enabled to make contracts for a year accordingly. The Amalgamated Association declined. The third matter was the proposed reduction in tonnage rates. We are prepared to show that in nearly every department, under the proposed reduction, the skilled workmen would make more than they did when the scale of 1889 went into effect. As a rule, the men who were making the largest wages were the ones who most bitterly denounced the proposed revision, for out of 3800 men employed, only 325 were directly affected by the reduction. Finding it impossible to arrive at an agreement with the amalgamated officials, we decided to close the works."

On Thursday last Voorhees, of Indiana, introduced in the Senate a resolution for inquiry into the trouble at Homestead. Hale, of Maine, in replying, criticised Voorhees for converting such a grave matter into partisan politics, defended the Repnblican party from the charge of the responsibility of the conflict, and assumed for the party and the policy of protection the credit of building up such great industrial establishments as those at Homestead and Bethlehem, Pa. Palmer, of Illinois took up the defense of the resolution, and we give his remarks as incorporating the views of the strikers:

He maintained that the workingmen at Homestead, having spent their lives in their line of work, had the right to insist on the permanency of the employment and reasonable compensation. At the time of the assault on them, they were where they had a right to be. He urged that some principle to solve the problem should be sought. If capital was master and the people were slaves, the country would be involved in anarchy. Palmer said that the presence of a Pinkerton force at Homestead was in contempt of the authority of the State of Pennsylvania. It was difficult for American citizens, whether in the right or in the wrong, to submit to being driven by an armed force. He maintained, however, that the citizens of Homestead were in the right, as, according to the principles of law which should hereafter be applied in the solution of such troubles, they had the right to be there. Those large manufacturing establishments would have to be regarded as holding property subject to the correlated rights of those without whose services their property would be utterly valueless. He conceded to them only the right to a reasonable profit on the capital invested in their enterprises. Manufacturing establishments were, Palmer claimed, public institutions just as railroads were, because they worked for the public, employed the public, and because the men in their service became unfit for other service. While conceding the right of the capitalist to control his property and to a reasonable return for his investment, Palmer claimed that the laborer had the right to permanent employment during good behavior. Of course the laborer was compelled to submit to the exigencies of business. Where the profits were small, the parties would have less to divide, and where they were large they would have more to divide. That, he maintained, was the law to-day, because the law was the perfection of reason. We talk about civil service law as applicable to Government employment. I assert that there is a law wider and broader than that, which gives to these men who bave been bred in these special pursuits—as, for instance, in the service of railroads, or of these vast manufacturing establishments—the right to demand employment, a right which can only be defeated by misconduct on their part.

We have given much space to this matter, not alone because of its exceptional interest as a public event, but because it promises to be related in an important way to the coming presidential campaign. Mr. Carnegie, the head of the Homestead establishment, is one of the leaders in manufacture in this country, and is among the prominent apostles of the Republican protective policy. In so far as there may be in the Homestead affair any reflection or apparent reflection on the Protective policy, it puts a burden upon the Republican party; and the disposition of the Democrats to make that burden as heavy as possible is shown in Senator Palmer's speech. There will be an effort by Senator Palmer and others to put the Democratic party into line as the defender and apologist—as the politicians put it, the "friend"—of organized labor and to force the Republican party into the opposite position. It is too soon yet to judge whether or not this effort will succeed, but as a study in partisan tactics the matter is worth watching. Of course, so far as the politicians are concerned, there is no sincerity on either side of this controversy. Mr. Hale, who professes himself so shocked at the attempt of Voorhees and Palmer to make partisan politics out of this sad affair is the man who only two weeks ago attempted to open up the presidential campaign by introducing in the U. S. Senate a grossly partisan resolution. He has a short memory. Looking at the Homestead business apart from its political aspects, and as we imagine the mass of plain people throughout the country will view it, the RURAL sees two sides and two very serious wrongs. The mill-workers were wrong in taking possession of property not belonging to them and in attempting by violence to prevent the mill-owners from operating their works. There ought to be no controversy as to this proposition among reasonable men. The mill-workers were certainly wrong in their efforts to intimidate the mill-owners and shamefully, cruelly wrong in their treatment of the vanquished Pinkerton men who fell helpless into their hands. On the other hand, the mill-owners were wrong in attempting to maintain their rights by the aid of a private mercenary army. They should have called on the proper authorities to protect them in their rights and not have resorted to lawless force. If they had followed this course, no fight would have occurred. The mill-workers would have yielded to the proper authorities a week ago, just as they have done in the end. The "Pinkerton guard" is not a legitimate officer. He is an illegitimate force which the rich assume the right to employ against the poor. His existence is a Public outrage because it is a reflection upon the regular authorities and a menace to equal rights. It is not surprising that the workingmen at Homestead and elsewhere regard these lawless hirelings with resentment and hatred, for they see in them the assassins of equality in citizenship. As to the rights and wrongs of the original question of wages we know nothing, and that is not the consideration at this time.

The State Press.

In commending the revivalist, Rev. B. Fay Mills, who has just closed a series of successful meetings at Sacramento, the *Bee* casts indirectly some pretty severe reflections upon the methods of the ordinary modern revivalist. It says: "He did not burst forth upon our startled gaze a promiscuous blackguard and sacrilegious buffoon, nor depart a contemptible and convicted liar. He did not proceed at once to abuse the people of Sacramento, to sneer at the chastity of our women, and to shriek out that our little girls who attended school are beer guzzlers and inebriates. He did not, before he had been here three hours, denounce the city as the vilest hellhole he had ever seen, and declare that Sodom and Gomorrah were capitals of cleanliness and chastity in comparison. In fine, he did not commence to lie and to blackguard the moment he opened his mouth, but he impressed all his hearers with an idea somewhat new to many of them—that a modern revivalist can be an earnest and a sincere gentleman, and that his Christianity loses no vigor because it is clean, decent and respectable. The *Bee* lifts its hat to Mr. Mills, and wishes him Godspeed in his work."

Stockton *Mail:* "The manufacturer is no longer dependent on the jobber or wholesaler. The country is full of commercial agents, representing manufacturing houses which are selling directly to retailers, and the railroads through the United States encourage this condition of things. In fact, the whole tendency of modern commercial methods is to eliminate the middleman. It is the law of civilized life to work in the direction of greater economy, and intimacy of communication brings the producer and consumer nearer together by a cross-cut which leaves the middle man and the profit-earner to one side. San Francisco is therefore in revolt to-day against an inevitable condition."

Weather and Crop Bulletin for Week Ending July 11th.

The following report shows the condition of crops, as reported by voluntary observers from Susanville to San Diego, and by telegraph from Observer Franklin at Los Angeles and Observer Williams at Fresno to James A. Barwick, Director of the California Weather Service. The conditions show that, while all crops will not reach the average throughout the State, the quality will increase the price so as to bring the grower about as much ready cash as though the crop were larger, with prices low. The grain is somewhat shrunken in San Joaquin county and very much below the average in Monterey county. The wheat yield is not up to expectations in portions of the Sacramento valley, while other portions report a good yield of good quality.

The highest temperature during the week was 101° at Red Bluff and Redding, and the lowest 46° at Blocksburg, Humboldt county. There has been no rainfall during the week, which is the normal condition in the agricultural and fruit districts of the State.

LASSEN.—*Susanville*—Haying has commenced, and the wild hay is a little below the average yield. Alfalfa is up to the standard. Vegetables are very good. The fruit is of a good quality, but not so heavy a crop as usual. Plenty of help for harvesting; the county is full of men, and wages range from $1.50 to $1 75 per day and board. Highest and lowest temperatures, 90° and 56°; mean for the week, 69°.

HUMBOLDT.—*Eureka*—Haying is about finished, and was a satisfactory crop in some portions of the county, while in others it was somewhat blighted from the hot north winds.

Blocksburg—Highest and lowest temperatures, 96° and 46°. The nights are too cool for corn, but the grain is looking and doing well.

Dyersville—Early peaches are ripening, and fruit of all kinds will be short. During the forepart of the week the weather was hot, but the latter half was much more pleasant and cooler. Haying is about completed, with an average yield of good quality.

Upper Mattole—The grain crop will generally be a good one in this section, although some fields will be short. On account of the excessive rains in April and May, the fruit crop will also be short.

Mad River—The weather still continues warm and dry, but is good for haying. Vegetables of all kinds are suffering for the want of moisture, as we are not having the usual amount of fogs. The sun rises clear in the morning and shines all day. There is no dew and fog of a morning until 10 or 11 o'clock, as is so usual in this vicinity, in consequence of which the grasses for grazing are drying up very fast.

SHASTA.—*Redding*—Haying has been completed, with the results of a good yield of a most excellent quality, and the grain crop is a good one. The weather is hot and clear, but not more so than is expected and looked for at this season of the year. There has been more high wind than usual for the season up to date. The highest and lowest temperatures were 101° and 59°.

TEHAMA.—*Red Bluff*—The crop conditions have been favorable during the past week. The apricots have been gathered and dried. The yield, though not so large as usual, is better in quality and size. Wheat has not turned out any better than was reported last week, so far as heard from. Highest and lowest temperatures, 101° and 61°.

LAKE.—*Upper Lake*—The season is a peculiar one on account of such frequent spells of warm weather, followed by cool ones, although the average temperature is normal. Heading begins this week, and the grain is better than usual. The fruit crop is two weeks later than is generally seen in this vicinity. Grapes are improving daily and will yield a full crop.

YUBA.—*Wheatland*—The weather has been favorable to all growing and maturing crops, with the exception of a little too much wind, which has slightly damaged hops. The yield of hops was not so good as was at first expected.

NEVADA.—*Nevada City*—Peaches are ripening fast, but the crop will be very short. What there are ripening on the trees will be of a much larger size than usual and of a better quality. Sunday was quite a cool day for so late in July. Highest temperature, 72°.

SONOMA.—*Healdsburg*—A slight earthquake shock occurred on the 9th. The weather still remains cool, which has a retarding effect upon all growing and ripening crops.

Forestville—Peaches and blackberries are now ripening sufficiently for shipping to the market. The quality is good. Threshing will begin at once. The outlook for corn is very good in every particular, as it also is for all vegetables and all growing crops.

CONTRA COSTA.—*Cornwall*—Threshing is well under way, and the grain is turning out nearly a full crop. The fruit is coming in in good shape. The Black Diamond Cannery is being run full time on apricots. It has been extremely windy during the entire week.

ALAMEDA.—*Niles*—The highest and lowest temperatures during the week were 90° and 61°. The weather has been cool and pleasant. Threshing has commenced. Apricots are ripening. The nights are quite cool.

Pleasanton—Grain and volunteer hay has all been cut, and the second crop of alfalfa is now being harvested. The weather continues favorable for baling and threshing, which is going on at a lively rate. Hops are growing rapidly.

AMADOR.—*Oleta*—Haying is over, with a fine crop of good quality. Threshing has commenced, but has not advanced far enough to tell whether the yield will be an average one or not.

Sutter Creek—Harvesting operations are about over in this section, and the hay-balers are at work. New hay is selling at prices ranging from $12 to $15 per ton.

Shenandoah Valley—Peaches are ripe in this section of the county; while some of the fruit-growers have hardly any crop, others will have quite a fair yield of good quality, the fruit making up in size what it lacks in number, and the flavor is fine.

YOLO.—*Capay Valley*—Fruit is now being shipped in large quantities to San Francisco.

Black's—The harvest season is in full blast, and the farmers are quite busy.

Esparto—Large shipments of wheat are being made from this point daily.

The tule farmers of Yolo are feeling quite jubilant over the prospect of big yields of wheat, being the first successful crop grown on tule land in Yolo for several years past on account of floods.

SACRAMENTO.—*Sacramento*—The temperature during the week has ranged from 2° to 10° below the normal or average temperature, as deduced from records of many years. The highest and lowest were 96° on Thursday and 50° on Monday, the 11th. The normal rainfall is nothing, and there was no precipitation during the week. Haying and harvesting are over, and the hay and grain lie in the open field baled and sacked, something that can be done only in the State of California. The orchardists are busy getting ready for picking fruit on a large scale, as it has not been coming to market in any very large quantities on account of the backwardness of the season, which is at least two weeks to twenty days later than last year. Grapes are looking and doing nicely, and hops appear to be holding their own; but the cooler weather of the past week has been of no benefit either to hops, peaches, berries or grapes.

GLENN.—*Willows*—The wheat harvest is in full blast and turning out well, while the yield will be above the average. Peaches will be plentiful and of an excellent quality.

COLUSA.—*Williams*—The weather has been favorable for haying and harvesting and for the ripening of the fruit crop.

SAN JOAQUIN.—*Lodi*—Highest temperature, 97° on the 7th; lowest, 50° on the 6th, with westerly winds prevailing. The wheat harvest is well under way, and the output is rather below that which was expected. In some fields the grain was shrunken. Berries and peaches are coming forward in good shape, but the yield will be below the average. Almonds will be a full crop.

Stockton—The weather for the past week has been unusually fine, the temperature being considerably below the average. Harvesting is progressing with all the haste possible, and the yield will be up to the expectations of the majority of the ranchers.

STANISLAUS.—*Modesto*—The farmers are quite busy harvesting their grain, and the output will be shorter than expected, but is of good quality; consequently, the loss in shortness of yield will be made up in the price as to quality.

MONTEREY.—*San Ardo*—The weather for the past seven days has been very favorable to the fruit crop. Heading grain is in full blast, but the grain crop is very light. There will be a short crop of grain in this section of the county.

SAN LUIS OBISPO.—*San Luis Obispo*—The week has been a cool one, with light s utherly winds and light fogs, which is just what is needed for beans and other green crops. Harvesting and thrashing are going on at a lively rate. Highest temperature, 78°.

FRESNO.—*Fresno*—The weather has been favorable for all crops, and the grain yield is exceeding expectations. Apricots are about all gathered. There appears some sunburn on raisins, otherwise there is no change in the prospects from what they were last week.

LOS ANGELES.—*Los Angeles*—The warmer weather during the past week has been very favorable to all crops. Fruit is ripening quite fast. Early peaches, pears, plums and watermelons are in market in abundance. Apricot drying and canning is in full operation. The harvesting of the sugar beets has begun, and the crop is an exceedingly large one, of exceptionally good quality. Oranges are looking and doing well.

CROPS IN OREGON.

PORTLAND (Or.), July 12.—The weekly report of the Oregon Weather Bureau says: Cool and occasional showery weather has been of great benefit to growing crops. The grain crop has been considerably improved, and a better yield than anticipated will be secured. Heading has begun in Eastern Oregon and Jackson county. Hops are doing well, though lice are quite plentiful.

The Columbian Features of the State Fair.

SACRAMENTO, July 11, 1892.

TO THE EDITOR:—The associated effort in aid of the annual exhibition of the State in this Columbian year has committed to this Section the matter of historical exhibits. Whatever success is achieved by this or any other Sections will be for the benefit of the whole State, and tend to enlarge and stimulate the California exhibition at the World's Fair. Only the few can go to Chicago in 1893, but the many can see in California in 1892 a greater and more varied display, and of profounder interest, than ever before.

At the State Fair in September this "Section" will endeavor to conduct a historical exhibit. We have classified it above sufficiently to suggest to you its scope, and how valuable, satisfying and educating it can be made. All exhibits loaned will have the care of the State Board of Agriculture and of this section, and be returned. No cost for transportation is involved. In every county, town and city something is possessed by one or more typical of one of the periods above scheduled. We wish to get into immediate communication with such people. Will you kindly make public this desire, and ask the people to address this "Section" at once?

Many things we will deem typical and valuable which the possessors may not; let them stop and think, however, that historical exhibitions are made up of many small things, generally, and that even a trifling object may serve to illuminate the civilization, history, trials, successes, failures, progress and triumphs in a period of California history. Will you kindly give rein to your public spirit and pride in our State, to make this matter public in your community? The time is short, and immediate action is imperative. All communications should be addressed to F. M. Woodson, box 495, Sacramento.

D. LUBIN,
Chairman of Historical Section.

Uses of Clods.

LOWER LAKE, June 27, 1892.

TO THE EDITOR:—In the essay on clods, in the RURAL of June 25th, they got the worst of it, and I come to the rescue.

The changing and uncertain conditions of cultivation caused by the weather are such that no uniform course or theory can be exactly followed. The point is to attain the desired end in the shortest time and the least labor.

First: Then I will presume it to be well-known that a hard, level, smooth crust on the surface is the most inimical to the retention of moisture and for plant growth. Such a crust is soonest formed on smoothly pulverized land by a sudden shower, but if the clods are numerous and harrowed to the surface, no such crust is quickly formed.

Second: When a clod or lump of earth is detached, capillary action between it and other portions of the soil ceases, the water is expelled, and ammonia and other fertilizing gases are absorbed from the atmosphere. In this simple fact lies a part of the benefit in summerfallowing.

Of late years my method has been to harrow the clods to the surface in the early spring. Then, when all probability of more rain has past, grind and sled down the clods with a plank "rubber." I also leave fall-sown grain as rough and cloddy as possible; then no smooth and uniform crust is formed by the winter rains. Then, late in the spring, harrow or roll, or both. There is no danger of wheat or other plants being lifted out of the ground by freezing if cloddy and no uniform level crust is formed by the rains.

C. P. SCRANTON.

Important Points on Artesian Wells.

MIRAMONTE, Kern Co., June 30.

TO THE EDITOR: I have seen in many of the California papers, of late, notices of the Census Bulletin recently issued by that Department.

Without exception the articles have been written after a very hasty perusal of the report and convey many false impressions to the reader. For instance the *impression* is given that the average capacity of California artesian well is for 18.63 acres, while the bulletin, which I have before me, states that is the amount of land being actually irrigated. And as it further states that the average flow per minute is 164 gallons it is easily seen that the average capacity is many times greater.

My full knowledge on this subject is limited to Kern County. By a reference to the bulletin it will be seen that the average flow of wells in this county is 1072 gallons per minute and that there are 89 wells. This makes a total flow of over 90,000 gallons per minute, or about 5,500,000 per hour. A daily total of 132,000,000 gallons. It can readily be figured that this means an irrigating capacity of fully 100 acres per well.

Again the papers state that as new wells are sunk they diminish the flow of the previous ones. This is true enough where the wells are shallow and hence with a limited reservior of supply, and where to amount to anything they are sunk in close proximity to each other. In this Artesian Belt there are perhaps less than half a dozen wells that flow less than at first. In every case they are wells of very small capacity, due to bad management in sinking them. The decrease is wholly due to the sand below that runs into the casing, and from a low velocity of flow gradually fills up the casing instead of being forced to the top and out of the well. With these few exceptions there is not a well here that is not constantly, if slowly, increasing its flow, from the fact that the sand from below being carried out at the top, the underground channels are being gradually opened up more and more, permitting the water to come more freely.

In this immediate district our wells will irrigate from 150 to 1000 acres of land, excluding the above-mentioned defective wells.

I regret to say that as yet but a very small percentage of that acreage is getting the benefit of the superabundant supply of water. We are growing, however.

GEO. A. RAYMOND.

Prizes for Southern California Products.

LOS ANGELES, CAL., June 25, 1892.

TO THE EDITOR:—The following proposition has been received from A. Phillips by the Southern California World's Fair Association, wherein he offers to furnish a round-trip ticket to the World's Columbian Exposition in Chicago in 1893, to any one person living in either of the six southern counties who will produce for competition the best samples in quantities as follows:

20 stalks of corn with ears attached (tallest).
20 ears of corn of one variety (yellow).
20 ears of corn of one variety (white).
20 stock beets.
20 sugar beets.
20 turnips.
20 onions (any variety).
5 squashes (largest).
30 pounds Irish potatoes.
20 pounds sweet potatoes.

The same to be delivered to the Chamber of Commerce in Los Angeles not later than the 1st day of November, 1892. Duplicate specimens of the vegetables are to be furnished the 1st of August, 1893. All samples to become the property of the Southern California World's Fair Association. The judges, to determine the awards, to be chosen by the association outside of its membership. Such samples as are accepted will be exhibited at the World's Fair as Southern California products.

The Los Angeles County World's Fair Committee makes the following offer of premiums to residents of the county:

For best three sheaves of wheat, each eight inches in diameter and as tall as can be obtained, and best 100 pounds of wheat:
First premium, $10.
Second premium, $5.

For best three sheaves of barley, each eight inches in diameter and as tall as can be obtained, and best 100 pounds of barley:
First premium, $10.
Second premium, $5.

Grain should be cut as close to the ground as possible, and be cured kept in a dark place to prevent bleaching. All samples entered for competion shall become the property of the the World's Fair association, and must be delivered at the rooms of the Chamber of Commerce on or before September 1, 1892. A committee of three competent judges, not members of the organization, will be appointed by the World's Fair Committee. A large amount of grain, both in the sheaf and in the measure, will be required for the display at Chicago, and it is earnestly hoped that all persons having good grain will enter it for competition.

For further particulars, address the association at the Chamber of Commerce, Los Angeles.

Thanks; Awfully!

The PACIFIC RURAL PRESS has been making some very decided improvements during the past six months. It has improved greatly in appearance as well as in the quality of its contents. The editorials are especially readable—the writer having the knack of holding the reader's attention on the dreariest subject. In the number of June 25th, for instance, he writes over a column on the subject, "Where Shall the Clod Be?" A very prosy subject, all will admit, and yet he handles it in so sprightly a way that it is fascinating. The RURAL is a fine paper, and every farmer and fruit-grower who takes pride in his calling should read it regularly. It will pay.—Paso Robles Moon.

RURAL IMPROVEMENT.

Roadside Trees for California.

From an essay by W. S. Lyon, State Forester, at the last meeting of the Southern California Pomological Society.

A naiton's advance in civilization is just as strongly indicated by its per capita plantation of trees as by its per capita consumption of soap. More so in fact, as the results from soap are instantaneous and those from tree planting the outcome of patient toil and waiting, which necessarily implies the exercise of higher faculties than those called into action to appreciate the tangible and immediate values of cleanliness. In no way is this faculty displayed to a higher degree than in the intelligent planting of roadside trees. The random planting of orchard, grove or windbreak is wholly commendable though it betokens no exceptional prescience in the planter. It is a simple matter of cause and effect and he knows that in due time they will yield their fruits and products. He whose acumen prompts him to plant and build perfect highways, contemporaneously with his orchard, is not planting for random results. He is anticipating and minimizing the cost of transportation, inviting population and consequently enhancing the value of his property, present and prospective from the start.

Most of us are responsible to our early training or rather experiences for the public inertia which prevails in the matter. To most of us reared outside of California, trees conveyed but slender ideas of their precious value. They were ubiquitous. No village street or county highway could be planned or opened that when completed should not embrace at least occasional shade trees. We took no thought of them, they required no planting, were there always, and familiarity with them, if it bred no contempt, at least tolerated the vandalism of their occasional destruction without much of a protest They were as common as air and water and could be wasted with equal impunity.

The hegira from the Egypt of our youth has brought us to a land that teems with milk and honey, but lacking sadly in both trees and water. So precious the one, that we can hardly adulterate our milk with profit, so scarce the other that we will even contaminate the honey we have by planting the pepper tree, whose pungent nectar the bees, despite our objections carry to their hives. This brings us face to face with the proposition of what we shall or shall not plant for this purpose.

To this end and in order that our highways be finally crowned with success, we should adhere as closely as possible to certain standards with which we will deal seriatim First it behooves us never to sacrifice the useful—the practical to any sentiment for the picturesque, or to gratify a fad for any unsuitable tree.

There are long avenues and driveways in California planted to our native fan palm which have been set for shade and their alleged tropical effect. A failure in each instance, as they yield but a minimum of shade when young, and at maturity practically none. Striking tropical effects are to be had with these plants where they are massed with groups of bamboos, cannas, bananas and plants of similar habit; but when arranged in long unbroken lines as they never naturally appear in the tropics, and in juxtaposition with the fruit trees and grain fields of the temperate zone, the result is mostly inharmonious, and a complete defeat of the original purpose. Conditions of soil and climate are other potent factors in determining what we shall or shall not utilize.

In Northern California, indeed in any portion where the soil is heavy or clay-like, and where the annual precipitation reaches or exceeds twenty-five inches, any evergreen tree is contra-indicated. First, they furnish shade at that brief winter interval when we rejoice in all the sunlight we can get. Next, they prevent the rapid drying out of the street surface the constant aggravation of the evils of mud and mire.

For Southern California, and where these conditions do not frequently obtain, we universally favor evergreen species. For the benefit of those favored with fair rainfall and interested in highways that traverse adobe lands, it will not be amiss to here name three deciduous sorts that will prove satisfactory. The first is the Acacia of Constantinople (*Albizzia Julebrius*). The others are the Spanish chestnut and the Texas umbrella tree. The first has the merit of more rapid growth, but the two latter have the commendable habit for the south of being very tardily deciduous; rarely becoming defoliated till January and normally being in leaf again by April.

The planter of deciduous trees enjoys advantages unknown to one who confines himself to evergreens. First, he contributes in no small measure to create that charming realization of spring which the bursting of bud and leaf always carries with it. Next he encounters few perplexing difficulties in the matter of selection, for of suitable deciduous trees, both endemic and foreign, the name is legion—whereas the planter of evergreen species is restricted to very, very few—and many of those of still problematical value. Still, as we admit the general advisability of the evergreen for Southern California with it we will now deal. First, caution is demanded in the selection of kinds which, if given a helping hand to start and encourage their early growth, will quickly assume their own responsibilities without further solicitation on the part of the grower. Any tree is obviously unfitted to this purpose which exacts either irrigation or cultivation beyond its first or second year.

Irrigation is always a menace to the roadbed, and unless followed by cultivation is a reprehensible practice. The moment cultivation is had the utility of your sidewalks are destroyed and the scheme of a perfect highway vitiated.

These considerations would lead us to reject such beautiful and symmetrical trees as the camphor laurel and the magnolia foetida, both of which are being utilized to some extent for avenue planting in Southern California.

Few trees in the many desirable traits of hardihood, longevity, cleanliness and freedom from the attacks of pestiferous insects or rodents are the peer of the former, or rival the splendor of the latter when in flower. They will, however, fail to give maximum results unless copiously watered and, except upon lands both naturally moist and well drained, must prove unprofitable.

The immense family of conifers—any and all kinds are, or should be, utterly tabooed.

The well-known hardiness and phenomenal growth of some of our native pines and cypresses has led many planters into undue enthusiasm, and I regretfully notice them planted in many localities for street uses. With but rare exceptions the habit of growth of the whole order is either columnar like the Italian cypress or pyramidal. The former, like the palms, supply no shade, hence obviously unsuitable; the others must sooner or later enroach upon the sidewalk or driveway, and then public convenience demands the removal of the lower limbs for a height of 10 or 12 feet; with the resulting destruction of any claim to beauty that the tree ever possessed.

Only a few years ago I was questioned upon, and enthusiastically advocated the planting of an avenue to a coniferous tree—the *Bunya Bunya* or famous and beautiful *Araucaria Bidwellii*. It was, however, to be a central alignment upon a boulevard of one hundred and fifty feet, with ample room for the development of the trees; for cultivation, an irrigation trench, and abundant room for a driveway on either side. Upon a scale of such magnificence the objections made against the camphor laurel, magnolia and many conifers vanish—only holding upon the village street or ordinary country road of 30 to 50 feet. The planting of road trees is an operation that should take into consideration the far distant future—hence, longevity of species becomes a factors of prime importance. On this point we are at a serious disadvantage with the Eastern States and Europe where suitability of kinds has been tested for hundreds of years.

We happen to know that the pepper and gum trees are long-lived, but of their behavior and appearance under existing conditions here we know absolutely nothing that extends beyond the short span of thirty years. How insignificant then is the sum of our knowledge of the host of exotics that we have been testing lately, our acquaintance with which does not cover over one-half that time.

We are in a hurry for all things from riches down to shade, and from the seed planted to-day expect the developed tree to-morrow. The policy dictated by the greatest wisdom and forethought, would indicate the planting of slow-growing endemic species, and satisfy the popular clamor for immediate results by interspersing them with short-lived, quick-growing sorts, which could be removed when their mission was fulfilled.

Since we have rejected the great army of conifers and have conceded the general virtues of evergreens for Southern California, we are practically restricted to two native species which have accidentally occurred on roadways, long enough to guarantee their remarkable fitness. One is the evergreen oak, the *Quercus agrifolia*—the other the native laurel, *Umbellularia Californica*. The enduring longevity of both is beyond dispute, and the habits of each as well known to-day as they will be a hundred years hence. We know that the former will thrive upon arid, gravelly soils, that the latter demands valley or bottom lands of some little natural moisture. Both branch low, but pruning is no infringement upon their beauty. They should be extensively planted upon every bit of roadside where these conditions exist. Their somewhat tardy development is the only defect that can be alleged and it does seem somewhat strange that we should have gone wild in the pursuit of strange exotic sylvan gods to the neglect of these two species. From the standpoint of beauty as well as utility, the laurel stands without a peer. The species heretofore named dwindling into relative insignificance.

Two sorts, however satisfactory, would result in a distressing monotony if universally planted, and this paucity of native species is in a measure accountable for our experiments with exotics.

Of them, our ignorance (for such practical work as street planting) is voluminous; our knowledge, with the single exception of the pepper and blue gum, is simply nil. These latter, except for their rapid development and well-known endurance of drought and our extremest temperatures, would not be tolerated an instant as avenue trees, nor will they be for even a day after the determination of similar merits in other species. This without slightest disparagement of the inestimable worth of the blue gum when confined to its legitimate uses as a wind break or fuel plantation. The pepper tree is even more objectionable. Its undeniable beauty and graceful drooping habit has furnished texts for eulogists, themes for poets and inspiration for profanity to the luckless pedestrian whose hat is knocked off by the same pendulous branches or marred by its sticky exudations. So pronounced are these objections that municipalities have had to provide ordinances for their pruning—a never-ending expense and annoyance to the abutting owner. In many country districts, as intimated heretofore, the pungent nectar of their flowers is communicated largely and deleteriously to the honey made in their vicinity.

Another exotic evergreen that seems to be in popular demand is the *Grevillia Robusta*, or Silky Oak. I regret to say that I cannot get enthusiastic over it. Of unsurpassed beauty in early life, it speedily deteriorates, and by excessive defoliation loses caste as an ideal street tree. This defect can in a measure be overcome by a vigorous pruning every few years. Its brittleness in high winds is still another objection, although it was noting the subsequent vigorous growth upon wind-broken trees that opened our eyes to the beneficial results of judicious pruning. All of the feather-leaved acacias are, in my judgment, chargeable with a similar fault as the Grevillia—that is a deficiency of foliage and bad habit, which augument with increasing years. Furthermore, and like the Grevillia, the constant dropping of their foliage and fruit pods is an objection for which their glorious wealth of fragrant flowers hardly compensates.

So far, we have not proceeded much further than a sweeping denunciation of most of the trees in general use, and the question naturally follows, what can we plant? Is there anything left? Or, because of these alleged defects, must our highways and roadsides continue to remain in their present uninviting condition? Most unequivocally no, and the number left worthy of trial is indefinitely great, but I shall only name a half dozen of species which, experimental though our knowledge of them yet is, seem to offer less prospect for future disappointment than any yet observed. At the top of the list I would place one of the entire-leaved acacias, the Blackwood, *Acacia melanoxylon*. My preference is not based upon any sentimental enthusiasm, but from observation of its behavior as a sidewalk tree for nearly 20 years. Quite unlike the feather-leaved acacias, it is at its worst in early life; its scantiness of foliage being noticeable until at four or five years and a height of 25 feet it begins to improve continuously, until at 20 years it forms a most imposing specimen of 60 feet, with a straight robust stem, crowned with a symmetrical and amply umbrageous crown, invulnerable to ordinary gales, enduring our extremest frosts or heat. Its leaves are of good color and of a texture to which dust does not readily adhere, remarkably free from litter, and last, but not least, not at all fastidious about soils or exposures, unless of extremest aridity. The fact that it is in common with the family subject to the attacks of the cottony cushion scale should be no deterrent to its planting, now that we have the means to keep that pest in subjection. Its severely formal habit is an objection to its promiscuous planting upon winding country roads or such as climb hills or descend dales, but for the streets of most modern towns and villages which mainly intercept at right angles, it is most suitable, this feature being in harmonious keeping with the plan, and the esthetic is enhanced, not marred.

Next in point of importance, I rate a eucalyptus or rather four of them. Observation of them in Southern California under conditions not dissimilar from what we expect upon highways, only extends over six to ten years, and actual experience with them as sidewalk trees only covers about four years; yet our knowledge of the longevity of the genus and their phenomenal rapidity of growths is almost a temptation to plunge into heroics on their behalf. The four species are *E. diversicolor* and *E. corynocalyx*, *E. hemiphloia* and *E. polyanthema*. I group them in pairs because the behavior and appearance of each couple, except to the expert botanist, are identical.

The first pair possesses round or uniform leaves in youth, gradually losing that character and assuming the long lanceolate foliage of most species, but never acquiring (unless crowded) the slender spindling habit of most of the linear-leaved species, such as the blue, red or manna gums—a habit difficult to suppress even with continuous heading back. Given ample room, and their tendency is to make a sufficiently branching and compact head.

The showy yellow blossoms of the *E. diversicolor* are an attractive adjunct, and the flowers of both species are eagerly sought by bees and yield a most excellent honey. Both, when young, are more susceptible to frost than the blue gum, and may prove unsuitable to any point where the winter minimum ever falls to three degrees below zero. As an offset to this, they have successfully withstood extremest heat and soils of excessive dryness, and though exceeded in rapidity of growth by some few species, are sufficiently "fast" even for this age of hurry.

The other two species—*E. hemiphloia* and *E. polyanthema*—have successfully endured lower temperatures than the former, and seem as well prepared to stand excessive drought and heat as the others. They have not been so extensively planted, and hence our knowledge is still more limited; yet they give abounding promise for service in the future. In point of umbrageousness, they far outrank any eucalypti we have, and their round leaves (continuous through life), of a pleasing silvery gray color, form an agreeable contrast to the uniformity and sameness of most of the gums. Their cleanliness, freedom from insect pests and alleged therapeutic value, in addition to the merits already dwelt upon, would seem to justify, despite our insufficient knowledge of their future behavior, limited experimentation with them upon our highways.

Briefly, I desire to speak of one more tree that I have had opportunity to observe during the past ten years, as isolated examples upon sidewalks and driveways in both Los Angeles and Ventura counties. I refer to the Moreton Bay rubber tree—*Ficus macrophylla*. Its only radical defect is a tendency to make a good deal of litter, but the atmospheric dryness of our climate, so uncongenial to the magnolia, just meets its requirements. If a relatively tardy development be considered a drawback, it can, or the effect of it, be overcome, as in the case of the laurel, by the interplantation of other short-lived, rapid-growing sorts.

The jumbling together of a variety of species on any street or drive is to be deprecated. A better general effect is produced with few varieties. The planting should be uniformly one kind until a bend, turn or angle in the road occurs, when another species may be introduced with propriety. These suggestions are made in conformity with my ideas that road-making and road-planting are sciences that should not be followed out in a haphazard way, but that the building and planting of them should be in the hands of qualified experts, of whom a strict accounting should be exacted.

Our present lack of system results as might be expected in many sections of the State, in having trails worse than no roads, unplanted, or if planted, incongruously or improperly done. Still, so impressed are we with the advantages that follow the planting of anything upon our thoroughfares, be it no more than a shrub, that, lacking anything like an intelligent system of road supervision. we must make the best of what we have, and urge upon every one the planting of even peppers or grevillias as a stride in the right direction, as an evidence of civilization, that will increase our material comfort and prosperity and elevate us in the eyes of the world.

THE IRRIGATIONIST.

Excessive Irrigation.

An essay at the Farmers' Institute in Pomona, May 27 and 28, by Mr. K. McLennan, foreman of the Southern California experiment station.

There is a prevailing idea among a great many people of this State, especially the northern part of the State, that no good orchards or good fruits can be raised and grown on the dry lands and irrigated districts of Southern California without an enormous supply of water. This idea is erroneous, misleading, and arises from the lack of sufficient knowledge of the country and of the conditions required to grow good orchards and good fruit.

And from this idea arises the practice of irrigating too much and at all times of the year, which sooner or later will bring its own reward with it.

While some irrigation when judiciously used is beneficial and even necessary, half the quantity used would be quite sufficient, and in a great many cases less would be better.

As proof of this, one can see many good orchards planted here and there throughout this valley that never receive any irrigation whatever except rainfall from the sky, and yet these orchards bear large crops of the very best of fruits. They have a higher color and are of a better flavor than those that are irrigated.

OVERWATERING YOUNG STOCK.

This is generally practiced by unprofessionals and inexperienced men, and I fear by some professionals too, who have no other object or motive in view than the money there is in the business.

Their aim is to force the trees by irrigation, and raise the greatest number of large trees in the quickest time possible, and shove them on the market, often regardless of quality or variety; and generally, on account of their large size, they sell better than medium-sized trees that are not irrigated but are decidedly of a better quality.

When these forced trees are transferred from the nursery and planted in the orchard they are always found to be very slow in starting, many of them will die and a great many will start from the ground (where the older and more mature are always to be found). The result will be a very uneven and unsatisfactory orchard.

At this stage of the game the orchardist takes it up and commences irrigating the trees as much and as often as he can get water to do it with, thinking that this will force them into bearing sooner than they otherwise would. This practice is a grave error, for they will not bear as early as they would if left more to the natural climatic conditions and seasonable changes of the year. Instead of forcing them into bearing, they are forced to make unnatural growths and the result will be that they are overgrown, top-heavy, with poor root system almost swimming on the surface of the ground; and when the winter rains and storms set in many of them will be found tottering over here and there throughout the orchard.

Thus they are kept in a forced state of growth and excitement from the time the seedlings appear in the seed beds until the trees commence to bear, and very often after that.

There is another evil attending too much irrigation that is not properly looked into. It impoverishes the ground by washing away the finer ingredients and materials necessary to feed and sustain plant life.

By way of illustration, we will take a ten-acre orange orchard with the trees planted eighteen feet apart each way. We now prepare for irrigation by running furrows along the rows two feet from the trunk of the tree, leaving a space fourteen feet between the furrows or irrigating ditches that is not to be irrigated. Then the water is run in the ditches at a distance of fourteen feet apart until the whole orchard is irrigated, and this is repeated every two months or oftener.

The result of this will be that an enormous quantity of plant food is washed away every year, and fertilizers must be resorted to before the trees have hardly time to come into bearing.

DANGER OF OVER-IRRIGATING STONE FRUITS.

Stone fruits should never be irrigated when the sap has commenced to move and circulate through the body of the tree, as they are at that time in their most delicate and sensitive condition and any sudden change at this time will chill the roots, the circulation will cease, or at least until the ground commences to warm up, when they will assume their normal condition and blossoms and wood-buds burst out all at once, and the ever-ready and eager wood-buds lead in the race, thus diverting the sap from their slower neighbors—the first buds—causing the blossom and fruit to drop, and a short crop will follow.

Should the season be very cold and wet at this interesting period of their growth, different results may follow. In order to explain this it would be necessary to follow the course and circulation of the sap. The sap ascends through the cells in the wood or body of the tree until it reaches the branches; there it will divide and circulate through every branch on the tree. On reaching the ends of the branches it changes its course and returns and descends on the outside of the wood—between the wood and the bark—until the collar of the tree is reached. There it will meet an obstacle; the ground is cold and wet and perhaps the water is standing around the collar of the tree, and the sap being on the outside of the wood brings it in close proximity to the cold and wet ground, which causes the circulation of the sap to cease. The consequence will be the sap sours and ferments, the bark splits and the tree dies.

This was the cause of so many fruit trees dying three years ago.

The best time to irrigate stone fruits is after the stone hardens in the fruit and again immediately after the fruit is picked.

The aim in raising young and good orchards should be to let them grow more dependent on their own resources. In this way they will become acclimatized and will stand the climatic conditions and changes of the seasons better. Of course I mean that they should receive good and thorough cultivation, and when it will be found necessary to irrigate them they should receive a good, thorough one, but not often. The furrows should be made as deep as possible—the deeper the better; they let the water down deep into the ground and will draw the attention of the roots downward instead of up to the surface of the ground as they usually do.

To the doubtful minds I would only say, look over the valleys of Southern California, note the vegetation growing there, plants, shrubs and trees of all descriptions and in all stages of growth, and aided by no hand but nature's. They too had a beginning and were small once; some are now large and old and still grow, blossom in their season and bring forth after their own kind. How much more, then, are we able to accomplish with good cultivation and a reasonable supply of water?

POULTRY YARD

Poultry and Eggs in the Petaluma Region.

PETALUMA, July 6, 1892.

TO THE EDITOR:—I wish to give your readers an estimate of the total number of coops of poultry received at Petaluma for the year ending June 1, 1892, that has been compiled. Of fowls there were 2696 coops (each coop containing 50 head) making 134,800 heads for the year; and the value per head would range from 25c to $1. This embraces chicks, turkeys, ducks and geese. The total number of eggs shipped was 1,432,908 dozen, which sold for an average of 27½ cents per dozen. During the cheap season 15 cents was an average price and the highest price during the last 12 months was 48 cents. Counting these a low average rate, say 25 cents per dozen, the aggregate value is $378,227. This does not include the eggs shipped by rail from Petaluma, or from other points in the country. The grand total from Petaluma and Santa Rosa is 1,882,188 dozen and valued at $470, 547.

In an interview with the proprietor of the Incubator factory, he gave me the following when I asked if poultry-raising would pay.

"Those of large experience concede that good hens will lay 12 dozen eggs per annum, but as a safe estimate let us take ten dozen as the average egg production for a flock of good, healthy hens. Prices of eggs in the San Francisco market range from 20 cents per dozen (the lowest) to 55 cents or 60 cents (the highest), averaging 30 cents per dozen. Again let us be on the safe side and say 25 cents per dozen, which is very reasonable, since choice ranch eggs command from two to five cents per dozen more than those ordinarily sent to market. Now, if we sell ten dozen eggs at 25 cents per dozen the proceeds are $2 50 per hen. After deducting $1 for feed, which is a high estimate, we have the neat little sum of $1.50 per hen per annum for eggs alone, to say nothing of what chicks can be raised.

"The use of the Petaluma Incubators and Brooders set at rest this question as to whether poultry will pay." He said: "Returns are large and frequent. Capital is turned over several times during the year, and for the small amount of cash required to start in the business we know of nothing that will pay as well. For example, do a little figuring. Broilers sell all the way from $4.50 to $10 per dozen, and it is estimated by those who have been long in the business that the cost of raising a chick ten to twelve weeks old is less than 15 cents. Now, this leaves a large margin for profit. The amount of money that one may make is only limited by one's capacity for conducting the business. The advantages of having a good incubator are that eggs can be set at any time so as to have broilers when they command the highest prices. Incubators never break eggs, leave the nest or breed vermin. Hens can be kept laying instead of sitting. The hatching can be done cheaper and more reliably with a good incubator and not give a tenth part of the labor to look after it the number of hens would that are required to hatch the same number of eggs, besides a great many other advantages well known to those in the business."

One dealer and raiser of poultry informed me that he had 1½ acres and had 400 laying hens that produced $1000 worth of eggs and young chickens. The total expense was a little over $300 per year for food, a profit of $700 per year, but agreed all the feed should be raised also, if possible.

W. A. Platt has several incubators that hold 2200 eggs. He says that 75 per cent of the eggs will hatch out.. Then he will lose 10 to 25 per cent of the small chicks. After three years the hens should be sold, being best to sell them then. Chicks lay at five months old. The profit per hen will be $1 to $1.50 each per year. Good wheat being purchased at market price is the feed used; in fact, he says, "good feed is cheaper in the long run." This gentleman will double his capacity this year. He has 600 duck eggs in the machine now.

A gentleman who lives within five miles of Petaluma gives the figures on what he has made off of 500 hens the past year. They are as follows:

Commencing with 500 hens on the 1st of January, 1891,	
Sold 4,658 dozen eggs at an average of 30 cents a dozen	$1,397 40
150 hens sold at $5.50 a dozen	68 75
18 dozen broilers at $4.50 a dozen	81 00
Increased flock 100 pullets at $7 a dozen	60 00
Gross receipts	$1,607 15
Cost of feed for the year	700 00
Net profit	907 15

Which gives a profit of $1.80 for each hen.

The following article from the pen of A. Armstrong appeared in the Petaluma *Courier:*

There is not millions in it, but it certainly pays, and pays well, in the district surrounding Petaluma. For a man of small capital who has a liking for poultry, it is the best business he can follow, provided he locates near a cash market. Petaluma is par excellence in that respect. No barter in ours, You can sell one-half dozen eggs or 1000 sacks of wheat and get cash every time. I saw an old gentleman once bring his eggs to market in his coat-tail pocket, get his cash and go away smiling.

Petaluma is now and always will be the greatest poultry district in our glorious State. Besides our own market town we are handy to San Francisco. If you wish to ship your eggs it only costs 25 cents per case of thirty-six dozen eggs and cases returned free of charge. Petaluma fresh ranch eggs always sell above quotations. At a fair estimate there must be in a radius of fifteen miles from Petaluma close to half a million hens in flocks ranging from 100 to 1500 hens. We consider there is more clear profit in keeping twenty-five hens than one cow. We do not make $5 on a hen, but we do clear $1.50 to $2 50 per hen per year. How many men have I heard exclaim: "If it had not been for my chickens I would have run behind." And dairymen also say: "I make more money out of my hens than I do the cows." And so it goes. Now to illustrate. In my own neighborhood, neighbor No. 1 keeps twenty cows and 500 hens. He says the hens beat the cows all hollow; his profit on hens last year was $800. No. 2 has fifteen acres of land, a family of four, keeps 400 hens (no other income), lives and dresses well, has money to spend, rides in his carriage and enjoys life well. No. 3. your humble servant, does not make an exclusive business of poultry, but keeps a flock of 300 hens on the side, gives them good care, and they cleared him $500 last year. But neighbor No. 4 has the model chicken ranch, a Mr. Treat, who has ten acres of land, well improved, fine residence, and all other buildings in fine shape, one-third in fruit trees, who started there with small means a few years ago. I don't suppose $5000 would buy him out to-day, and he made it all from the humble hen.

W. H. MURRAY.

HORTICULTURE.

How Fruit-Growing Has Progressed on this Coast.

There has been placed on our table by a pioneer resident on the "Eastern Slope" a curious and interesting relic connected with the early history of that section of country. This reminder of the past consists of an article taken from the *Territorial Enterprise*, published in Carson City, and bears date Sept. 1, 1860. It comes to us aged and dingy, having been printed on brown wrapping paper, for often in those early days it happened, at points in the remote interior, that the newspaper man, his stock of white paper being exhausted, was obliged to borrow from his neighbor, the merchant, enough wrapping paper to tide over the emergency. Commenting on the California fruits arriving in that country, the editor of the *Territorial Enterprise*, in the issue referred to, discourses as follows:

Our markets are now being supplied with every variety of fruit from California, and at prices not at all unreasonable, considering the distance it has to be brought and the care required in its transportation. Pears, peaches and apples are selling at 35 and 40 cents a pound. The apples, for the most part, get over in tolerable condition, but the pears and peaches, unless packed with extra care, bruise a good deal with the long and rough journey. Of all the peaches brought over the mountains, the finest we have yet seen were a lot from Garcelon's nursery, Calaveras county, one of the Eden spots of California. This delicious fruit, although of immense size, and not picked until fully ripe, had been boxed and handled with such care, that they reached here with but slight damage, the bloom on their ruddy cheeks being scarce tarnished with the journey. But for some detention on the road—the Big Tree route—these peaches would have been here in four days from the time they were picked, as they will be hereafter; it being the intention of the proprietors, we believe, to supply our market regularly with the products of their orchard.

With this bountiful supply of fruit, living has been rendered much more tolerable in Washoe than aforetime. Those who were here last summer will remember that we saw but little fruit then, and what little did get here was nearly worthless and arrived late in the season. Possessed of so many sheltered and fertile spots, we do not see why our own soil could not be made to contribute something in a few years toward furnishing ourselves with these products, now wholly imported from California. It is generally believed, from the ill success that has attended the efforts thus far made, that fruit trees will not thrive in this country. The more tender, perhaps, would not; yet we believe apples, plums and grapes could be cultivated with success. Currants, plums and a variety of berries are found growing wild, and the cultivated varieties could, no doubt, with proper management, be made to adapt themselves to our soil and climate. The experiments heretofore made have been on a limited scale, and probably not conducted with as much judgment and care as they should have been.

Persons going into a new country, having a climate different from that to which they have been accustomed, are very apt to question its adaptability to the growth of such products as they have been familiar with. When our people first arrived in California, they looked upon most of the country as a mere desert, and were very timid about undertaking even the cultivation of grain, while they had not the remotest idea that vegetables and trees in endless variety could be raised with facility almost everywhere. Yet such, on trial, proved to be the case. The present proprietor of the nursery mentioned took up the spot, then the site of an old Indian rancharia, in 1851, intending to test its fitness for gardening and fruit-growing, with many doubts and misgivings as to the results; and feeling very much, it may be presumed, as our friend Nash would do were he to undertake a like experiment at this time, on the old Eagle ranch, having all the reported failures of peach growers in Upper Carson before his eyes.

These mountain orchards of Mr. Garcelon, upon the cultivation of which he entered with so much distrust, scarce nine years ago, now beat the world in the variety, excellence and abundance of their products, hundreds of tons of the most delicious fruits being raised every year with but little labor. Now, while we have no idea that results like these can attend the labors of the nurseryman in Western Utah, still, we believe there are many places on our river bottoms, as well as hundreds of little dells in the mountains, where the more useful and hardy fruits could be grown with the greatest success. At all events, the matter should be fully tested at the earliest practicable moment, and we trust our people will not suffer another planting season to go by without taking measures for giving the fruit-growing capacities of Washoe a fair trial.

It will be observed with how much of misgiving the writer of the above article speaks of the fruit-growing prospects in Western Utah, now the State of Nevada, venturing to suggest that possibly the hardier varieties might, in favorable localities, be grown with success. Up till that time, the only fruit trees that had been set out over there consisted of the peach and apple, a few of which had been planted in Carson valley, but with such disappointing results that no further trials in this line had been made either there or elsewhere in that country. Now, Carson valley is notably a breezy locality, the wind sweeping through it often with almost cyclonic violence, to which fact, coupled perhaps with ignorant planting and careless cultivation, was due the failure alluded to.

With the large immigration incident to the discovery of the Comstock mines, there was created such a demand for

fresh fruits in Western Utah that the planting of fruit trees was soon after begun, and, favorable localities having been selected and the business conducted with more care, has come to reach there large proportions, enough of the more hardy fruits, and of the best quality, being now raised for home consumption, with some to spare.

And thus has it been with this fruit-growing business from the start. Commencing in the rich alluvial valleys of California, it has been traveling all the while east. Its first movement in that direction having brought it to the foothills of the Sierra Nevada, it made there a short halt, advancing soon after into the mining districts, this being the site of the Garcelon nursery, the pioneer in the mining regions of the State. Gradually it crept up to higher altitudes, and finally passed over the great snowy range into the arid sage lands beyond, where, as above related, we find it flourishing to-day. For now nearly a quarter of a century both Ceres and Pomona have found prosperous homes in a region laid down on the not very old maps as the Great American desert! These experimental plantings made by men of the Harris Garcelon type constitute the mile stones by which is measured the horticultural progress made by our people since they came to this coast.

Orange Growing.

The following paragraphs are taken from the excellent paper on the above subject which Henry H. Wheeler of Pomona read at the recent meeting of the Farmers' Institute:

VARIETIES.

The next important step is to select the varieties desired. It can hardly be denied that the Washington Navel has no equal for quality, promises the highest market value, is an excellent shipping orange, and is of unusually uniform quality. I do not, like many, give the Mediterranean Sweet either second or third place. My experience with it is that it is not of uniform quality on the trees—there being many coarse, puffy ones, especially in the latter part of June and July—tends to overbear, and is a larger orange, on the average, than I think will soon come to be of market value next to the Washington Navel. It is not to be questioned that a good Mediterranean Sweet is an exceptionally fine orange.

Second in commercial value is, or soon will be, the paper rind, or thin-skinned St. Michael. It is fine flavored, a good keeper and shipper, and in size growing to be the most popular in the retail market. If you have seen the catalogue of auction sales this season you have noticed that the very smallest sized oranges have brought higher prices than the large ones.

The Ruby Blood orange is highly recommended, but I have not grown or tested it. The Blood orange always has commanded high prices in the markets. For two or three years I have been deliberating about the Nonpariel (known here as the Valencia Late, and in Florida called Hart's Late). This is an orange ripening very late—July and August—of fine keeping and therefore shipping qualities, and fairly good to eat out of hand. Without doubt, a few carloads of this variety would sell wonderfully well in the large Atlantic coast cities—even as high as eight or nine dollars a box. But since the markets are then (July and August) filled with all kinds of green fruits, I have come to the conclusion that several hundred cars of this variety would sell to the shippers' profit.

Now-a-days I seldom advise. If I were setting out ten acres to oranges, perhaps I should plant one-half to Washington Navels, the other half to paper-rind St. Michaels.

PRUNING.

We do not pay much attention to pruning. The French or English gardener will spend more time and thought over a single tree than we give to a ten-acre orchard. As I go about I am amused, and also nearly vexed, to see all trees in some orchards trimmed up exactly alike, the fig and prune, apricot and lemon, so that a horse can rub up close to the trunk. My friend, you call yourself an intelligent horticulturist, have you ever considered for what you are growing and trimming trees? Is it for productiveness, that is, profit, or for your own ease in working around them, that your hat may not be knocked off by branches, or a little backache saved in hoeing? I will wager almost anything that the extra amount of fruit produced on a low-headed and low-branched tree pays for hoeing around it many times over.

I am a strong advocate of low pruning of orange trees for these seven reasons: The fruit-bearing surface is greatly increased. The tree is made more stocky, and is thus better able to withstand high winds. The bark of the trunk is shaded, a most important consideration in this country. The soil immediately about the trunk is shaded and thus kept more moist and loose. The picking of fruit is greatly facilitated, and less expensive. A large olive grower has told me that it costs him four times as much to pick olives from some of his high trees as it does from the low-trained ones, and any one can see how much help it is in the case of lemon trees, from which pickings are made several times a year. I have not had to use steps or ladders in picking oranges from my seven-year-old trees.

There might be seven equally cogent reasons in favor of high pruning, but it has not been my lot to fall upon them. To show the increase in bearing surface, I call to mind some trees pruned high, of the same age as mine. When I had a small first crop, they had nothing. The next year I had about half a box to a tree; they had one or two dozen. A good maxim about pruning is, train a tree as you wish it to grow, and don't try to make it as you wish when it is old—when you have to use a two-horse pair of shears and a buck saw. I do not favor letting new growth get more than a foot or two long. Fruit borne on the extremities of long branches is always coarse and poor. Large trees should be thinned inside—especially seedling trees. Let the sunlight air into the heart of the tree; it will keep the tree clean, and the fruit will ripen more uniformly, leaving none of those puffy, coarse, sickly-looking oranges so common in the centers of large trees.

VALUE OF AN ORANGE GROVE.

It is unsatisfactory to talk about profits. There is a case on record of $1800 an acre; Riverside can furnish proofs of $1000, $1100 and $1200 an acre; but it would be difficult to get at the average net profit. If I had capital, I would not hesitate to offer for all bearing, complete, well cared-for orchards, of good varieties, $300 per acre in advance, for the next ten years, or $3000 cash per ten acres for the crop. For ten years to come, I believe choice oranges will bring good prices. If the fruit growers are not fools they will get their just share of the profits.

Lemon Culture and Curing.

Excepting a short preface, the following is the paper of Judge Frank A. Newell of the Kingsley tract, read before the Los Angeles County Farmers' Institute at Pomona, May 28, 1892:

As to the cultivation of the lemon tree in bearing (I do not care to speak of it at an earlier stage) all that need be said is, it should be kept in thrifty condition to a marked degree, that the fruit may have healthy and rapid growth to attain commercial size before the least change of color. This can be accomplished by reasonable moisture and generous fertilizing. I have so far used domestic manure in best form. As to which is the best of the several commercial fertilizers I cannot, for want of proper knowledge, venture an opinion. Neither as to which variety of lemon is the best. I have the Eurekas, and none other. No one has yet shown me by actual demonstration there is a better variety; and I am waiting for some person of good repute to come and demonstrate to me in the presence of at least two good citizens, "worthy and well qualified," that there is a variety whose fruit can be gathered with less discomfort, is more prolific, that looks better, feels better, tastes better, keeps better and is better. When he comes, if I am not too old, I agree to tell all interested parties that I meet, that they may know and obtain the better kind. Some believe that those persons who produce fine cured lemons possess secrets that the masses do not possess. In the broadest sense of the word, that is true. So there are secrets clustering around the process of making good pie, but in a strict sense of the word there are none in either. The superior knowledge possessed has been gained by study and experiment, often attended with considerable loss. The greatest secret (if the word may be used) consists in intelligently severing the fruit from the tree. In this consists the exercise of good judgment and the highest order of care. The lemon that will appear to best advantage when thoroughly cured, was of commercial size and rich, green color when severed. A lemon that has changed color from intense green to yellow, though in a slight degree, can never compare when cured, in color or quality, with its more fortunate companion above mentioned. If the fruit is expected to remain from six to ten months in storage awaiting favorable market, then, if possible, fruit measuring at least 2¾ inches in diameter and upward should be selected; but if known to be wanted much sooner, then those of less diameter may be selected—2¼ inches and upward. When the fruit is maturing on the tree I gather as often as two or three times each month, and at each gathering sever everything, great or small, that shows the marked sign of turning. However small, they cannot grow better, and it relieves the tree to take them off. As I have already stated, the greatest care must be exercised to obtain the best results in severing fruit from the tree and placing in sweating box. If there shall be any shirking of duty in that behalf on the part of the orchardist, he will surely find his fruit, when cured, inferior in just proportion, suggesting to his mind the ancient common law maxim that "a man cannot be permitted to take advantage of his own wrong."

Now, a few words of detail and I am done: Cut the stem—never pull off, for it will not keep as well; place in basket or other convenient vessel lined with some soft substance, holding not exceeding 50 pounds; place in sweat box three to five feet deep, placing boxes one above the other to convenient height, placing one or two empty boxes on top and bottom to relieve top and bottom boxes from drying, as it is found the top and bottom boxes are most sensitive to heat; let the boxes fit as close together as possible; then cover to exclude all light; let the boxes be surrounded with air, but at all hazard protect from currents of air reaching them. With the usual average temperature in ordinary barn or shed, in 35 to 40 days after so placing the fruit, open up, select everything worthy and place in trays one deep, holding from four to six dozen; trays should be of uniform size to fit closely when stacked, making as near air tight as possible; place newspapers in bottom and top of trays to absorb any excess of moisture which often accrues. When this is all done, stack and cover in manner aforesaid and let alone until wanted; the sooner marketed the better, if outside of a first-class storage.

The doing of the things above stated has secured to me fine cured fruit, as many citizens of this city have seen and know, and will surely secure to others the same result who are willing to exercise the same care. Whether any better method will be discovered, I cannot say. If so or not, we have reached such a degree of excellence in curing as to encourage liberal planting of lemon orchards, whose wholesome fruit is more extensively known and used than any other, and the production of which in its best possible form is of more interest of vital character to the human family, in sickness and in health, than the production of all other fruits combined; and I believe that very soon, by force of right, the lemon will arrogate to itself the dignity of kingship of the citrus family. Respectfully,

FRANK A. NEWELL.

FRUIT MARKETING.

The Santa Clara Fruit Exchange.

CAMPBELL, Santa Clara Co., July 6, 1892.

TO THE EDITOR.—On the 2d inst. the stockholders of Santa Clara Co. Fruit Exchange met and adopted by-laws. The directors of that Exchange met on adjournment of the stockholders' meeting and unanimously decided to immediately select a location and erect suitable buildings thereon in which to conduct the business of a Fruit Exchange. The amount of stock thus far subscribed, together with the almost unanimous promise of our fruit growers to give such further financial aid as may be required, impelled the directors to this prompt and decisive action.

At Campbell about 50 persons subscribed $1500 and promised more if more be needed. Other places will doubtless do as well when the advantages of a Fruit Exchange are as thoroughly understood.

The "Exchange Buildings" will most probably be fireproof, two-story brick, contain the best modern appliances for grading and packing fruit. Thus the Exchange may be enabled to put a grower's brand of fruit on the market, at least equal to the best, if not an unequaled brand. This alone will be worth many thousand dollars to the fruit growers. The Exchange promises to be ready to handle the present year's dried fruit crop of Santa Clara valley. Growers should very promptly subscribe the balance of the stock required, and thus place their business on a solid basis. This is virtually a fruit grower's Exchange, as there are a hundred or more growers to every canner or drier. If growers want their business properly done they must do it.

Apricots are beginning to ripen. The crop will be very short. There are acres together not worth gathering. Not only are apricots withering, but not a few prunes will also fail to mature.

It may be peaches will do better. Some say the cause is frost and cold weather, others add "dry weather" as the principal cause.

I think that it is due to the early frosts and the later cold, dry weather combined.

There will be a great deal of small fruit this year, besides a large quantity will not mature.

ENTERPRISE OF THE CAMPBELL GROWERS.

The "Buxton Fruit Drying Works" at this place was this day transferred to the "Campbell Fruit Growers' Union," an association of the fruit growers of this district, by which they propose to handle their fruit on cooperative principles. The purchase of the Buxton plant puts them in possession of one of the largest and finest equipped drying plants in the State, with buildings and grounds of almost unlimited capacity, and with all the most approved appliances and labor-saving machinery, run by steam power, for the rapid and economical handling of fruit. The laying of the third rail from San Jose to these works, which is now in progress and which will be completed in time for this season's business, will give unsurpassed shipping facilities, giving broad gauge communication with all points East without change. The acquisition of this plant is considered fortunate by the growers as it is located in the center of the great fruit growing district of Santa Clara valley, and there is practically no limit to its capacity for handling fruit. The fruit growers of this district have acquired a reputation for enterprise and push, and this move is considered important in view of the fact that it is the first step toward the handling and sale of the fruit by the growers, one of the principal objects that was sought to be brought about by the organization of the County Fruit Growers' Exchange. M.

The Trade in Spanish Raisins.

Vice-Consul Romaguera, of Gandia, Spain, reports that the demand for this fruit, which is the principal product of that region, has decreased considerably during the last few years, and, in consequence, its price, which about six years ago was on an average 25 pesetas (20s.) per cwt., had fallen at the end of last year to 10 pesetas (8s.) per cwt., which price does not cover the expenses of cultivation. Such a depreciation is attributed to the lowering of the duties on currants in England, but it is principally owing to the considerable increase of the duties which raisins from Spain have to pay in the United States since the McKinley bill has been in force, and also owing to the increase of that product in other parts of the world. The crop of oranges has been most abundant, and has obtained regular prices, but if a lowering of railway tariffs is not obtained, so as to extend its consumption in Spain, the depreciation of this beautiful and valuable fruit will soon be felt, as the market in England is not sufficient to give outlet to the production, which day by day is increasing. Mr. Vice-Consul Morand, of Denia, reports that damp weather, with some rainfalls since the beginning of September, caused much damage to the crop of raisins, which at first was estimated to be a good average one, say about 3500 tons. The demand for the United States of America has been very limited indeed, owing to the heavy duty there and the large crops in California, which have considerably depressed the price of this fruit in that country, and greatly affected its value in all the other markets; and, as in the previous year, speculators (among whom were cultivators themselves, who had shipped largely on their own account) lost a good deal of money. The district of Denia in consequence is much impoverished, the value of landed property has depreciated, and money is becoming more scarce. Consul-General Holmwood, of Smyrna, reports under date May 1: "The recent revision of the French tariffs fully accounts for the value of raisins in 1891, the present tariff provisions virtually prohibiting the shipment of raisins to France, to which country so large a proportion of this staple production of Asia Minor had hitherto been exported."—Fruit Trade Journal.

THE HOME CIRCLE.

Her Exalted Station.

I used to think it an easy thing,
As easy as any one asks,
To keep a family neat and prim
And manage the household tasks.

It seemed to me, in my foolish pride,
That the heft of a woman's toil
Was simply to sit by the door inside,
And wait for the dinner to boil;

While out in the summer's scorching heat,
We men were sweating away,
With aching shoulders and jaded feet,
From dawn to the close of day.

But, sir, I would have you be assured
That thoroughly, one by one,
My notions of housework have all been cured,
And this is the way it was done.

My wife suggested a day's exchange,
As she dropped a kiss on my brow—
"'Tis hard," she said, "holding on to the reins
And riding the sulky plow.

"You better stay in the house, my dear,
And wash a few of the things,
And churn, and sweep where it needs it here,
And read till the dinner-bell rings.

"The horses are gentle and pretty true;
I guess I can drive them straight—
I'll try and turn a furrow or two,
For the season is getting late."

So off she rode on the sulky plow,
With her jaunty hat and blouse,
While I was inwardly vowing a vow
How I would manage a house.

But, somehow, I found the morning chores
Were not in my usual line,
Like those I had finished out of doors
At least for a thousandth time.

Against the stove my fingers I bit,
And blistered them stinging sore;
In trying to scrub the clothes a bit,
I scrubbed my knuckles the more.

The churning acted 'specially mean;
The butter would almost come,
And then go back to frothy cream,
As if I had just begun.

The fire went out, as a fire will do
When the wood is not put in;
And as I thought of a meal for two,
I did not know where to begin.

But, while I was fixing potatoes and pork,
Not fit for a dog to eat,
My wife returned from her forenoon's work
As fresh as a rose and as sweet.

With a mortified air I quit the room,
And betook me to the shed,
While she got a dinner exactly at noon,
As good as ever was spread.

We sat at the table opposite-wise,
As always we did before,
When she asked with a smile in her sweet blue eyes,
If I would exchange some more.

Then, sir, I confessed my faults and said:
"My dear, you're as good as a queen;
The woman who keeps the family fed
Is running a big machine."

—J. P. Trowbridge in "The Housewife."

The Colonel's Wife.

Fort Ludlow is a beautiful place to the few people from the city who, nervous and tired from a long winter of overwork, go down there in the sunny springtime for a day's rest.

During the war this fort was commanded by Col. Baxter. He was a brave old man, of more use out of the active fighting than in it, and just the officer to command this place, which at the time was of some importance from the fact that it served as a prison for Southern captives. They tell odd stories of old Baxter, and from all accounts he was not of the mildest disposition toward either his prisoners or his own men. Of all who suffered from the colonel's tyranny, however, the most tried was his young wife. She had been married to him by her parents when she was still very young, and having gained a right to his name and money, had lost, as it seemed, all hope of happiness. The old man undoubtedly loved her, as was often proved by the license he allowed her in many things, but he loved her in a way that could call for no response, and he made her life most wretched. To add to her distress, she was almost worshipped by every officer in the fort, and as a consequence sincerely hated by their wives.

So matters stood here at the fort in midwinter of '63. There were at the time few prisoners confined here, and if the colonel had chosen, the life might have been almost pleasant. As it was, the only bright spot in the long, monotonous days was in the morning visit of the colonel's wife to the prisoners. The old man's permission that this daily visit might be paid had cost the young woman much pleading and many tears, but now that it was accomplished, the deed of charity seemed to bring a little joy into her sad life. To the prisoners it was a deeply-felt blessing, while to the Union soldiers in the fort it also brought pleasure, for they saw that the colonel's wife was happier for her work, and they all loved the colonel's wife. The visits were short, but in them the girl managed to say much that was comforting to the discouraged Southern captives, and after them each man felt that he too had a mother, or sister, or wife, for whom he must still live and fight on.

January came and with the New Year a fresh batch of prisoners from the front. The colonel's wife soon knew them all, and they, at first sullen and discouraged, began once more to gather hope from her kind words. All but one, and that one had no need for encouragement. This young Southern officer, strong in the belief that his cause was right, firm in the trust that he should live to fight once more for this cause, and confident in the love of the girl who would long ago have been his wife if the war had not broken out, had never for a moment let his courage fail. Escape was the word that was always in his mind. Escape was what he thought of, escape was what he dreamed of, and escape was what he finally attempted.

But for three long months he was a prisoner confined in one of those narrow cells, just there across the ditch. And there every day the colonel's wife visited him, and there she talked to him of his home and of himself. The man was a noble fellow, and when he opened his heart to the young wife, never for a moment dreamed of the harm he was doing, while she, poor girl, never having known happiness, hardly understood why she was happy. But finally, when he told her of the girl who was waiting for him at home, she understood, and he, to his sorrow, also understood. Then he saw a double reason for leaving the place, and she, too, saw that he could not stay. Duty to her husband and her country, love for the man whose very presence brought her happiness, yet who was not for her, above all, the knowledge that in helping him to escape, she was sending him to that other one waiting for him in the Southern home, all these thoughts filled the mind and soul of the colonel's wife. And then, one bright April morning, after a calm, almost sultry night, the report spread through the garrison that No. 34, Capt. Low, 4th Carolina Cavalry, had escaped. No one knew how it happened; no one could understand how No. 34 could have cut away the stone-work of his window enough to have pushed through. Above all, no one could believe that the prisoner had slipped through the opening, crossed the ditch, and fled out into the night without being seen by the sentry, whose beat was not 20 paces from the course the prisoner must have taken. The sentry himself was for a time suspected of negligence, but was soon cleared of the suspicion by the evidence of the colonel's wife, who had herself, in taking her usual evening walk about the ramparts, seen him at his post. The escape had been discovered very soon afterwards, so that there was no reason to believe the sentry asleep. The man himself, freed from the charge, did not care to tell that the colonel's wife not only saw but spoke to him that night. That moreover, she called him to the further end of his beat, and called his attention to a noise which she thought she had heard far down the sea wall. 'What good would it do,' the fellow said to himself; 'sure, it ud be loike impaching the lady herself, which is foolish indade.'

The colonel never saw a letter which a year or two afterward came to his wife. He was not in the room to see the tears come slowly to her eyes as she read the words:

"That night when I saw your face in the dusk, looking at me, while you pointed with your hand in the other direction, then for the first time did I realize the risk you ran, and I felt ashamed to profit by your danger: You saved my life, and gave to me the woman who is now my wife. From the promise I made to you she will never know your name, but she joins with me in wishing all happiness to the colonel's wife."—Halsey DeWolf, in the Harvard Advocate.

HOW TO DRINK A FARM.—Bob Burdette gives this simple recipe: "My homeless friend with a chromatic nose, while you are stirring up the sugar in a ten-cent glass of gin, let me give you a fact to wash down with it. You may have longed for years for the free independent life of the farmer, but have never been able to get money enough together to buy a farm. But that is just where you are mistaken. For some years you have been drinking a good improved farm at the rate of a hundred square feet a gulp. If you doubt this statement, figure it out yourself. An acre of land contains 43,560 square feet. Estimating for convenience the land at $43.56 an acre, you will see that it brings the land to just one mill per square foot; one cent for ten square feet. Now pour down the fiery dose, and imagine you are swallowing a strawberry patch. Call in five of your friends and have them help you gulp down that 500-foot garden. Get on a prolonged spree some day, and see how long it requires to swallow pasture land enough to feed a cow. Put down that glass of gin; there is dirt in it—100 feet of good, rich dirt, worth $43.56 per acre."

Apricots Are Here.

SANTA ANA, ORANGE CO., June 29, 1892.

TO THE EDITOR:—It is the last week in June.

The trade winds are driving away the fogs which have too long lingered overhead.

The grevillia trees, whose gorgeous sprays so long upheld tiny chalices brimming with honey, whereof mocking bird and humming bird did hourly sip, are showing their glory. The pistils only cling on, like stiff and withered finger-tip pointing heavenward.

Now, at morn and eve, the humming birds leave shady coverts to probe the depths of the long-tubed Marvels of Peru, which star our gardens.

Mocking birds, perched on windmill fans, trill night and day, only stopping to flutter to the fig trees near, dipping beaks deep into the drooping, bursting figs, lunching on the luscious sweetness within.

Pomegranate bushes are all ablaze. "Golden Gate" poppies rival Solomon in all his glory. Roses are marshaled in pomp for the third time this year. And chrysanthemums have to be severely nipped back to keep them from blooming before the "autumn show is on."

It is the last week in June.

Irrigation water is half an hour to the acre. But the little ranches hereabout only need water for their alfalfa patches. Corn and pumpkins which have never seen water above ground are making a luxuriant jungle.

We of the Southern California valleys open to the ocean have all this month been getting most of our fresh fruits from the hot northern inland valleys. We have paid ten to 15 cents per pound for cherries, and currants we do not have, and a "bit" a pound for early raspberries and blackberries. Of the "almond-eyed Celestials," we have had strawberries, fourteen pounds for a dollar. Memories of all there are on the shelves of the thrifty housewife—tempting jars of preserves, jams and jellies.

This same thrifty housewife knows that blackberries are coming in from the "artesian belt" or swamp lands near, and she is watching the green grocer's prices. When they are $1.50 per crate, she will order for canning.

Yes, it is the last week in June.

We of the Santa Ana valley are beginning to have our innings as to fruits. Early pears and "Saucer" peaches have been tantalizing us in our orchards, till the lord of the season, brave in red and gold, claims all our attention.

He has come. He is here. *Apricots are ripe!*

The very birds of the air seem to sing it.

The bees scent the aroma of the laden trays from afar and hum the news to each other.

The chickens rush out early in the morning, before the pickers come, to breakfast off the fruit which has dropped over night, and during the day they stick their heads through the meshes of the wire netting inclosing the drying ground, clucking angrily.

The baker in the country town finds ready sale for all his empty flour sacks, the accumulation of a year, at five and six cents apiece, and still there is call for more. The tardy ones who have neglected to engage the floury bags, now have to pay nine to ten cents apiece to the wholesale grocer for sacks, or buy a bolt of cloth and make them for seven or eight cents apiece, not counting the work. The thrifty housewife on the little ranch tells "her John," "I told you so," as she wearily seats herself at the sewing machine and thinks for the thousandth time, "We women would manage things better if we had them in hand."

The rancher who sold his fruit green, early in June to Cook and Langly or some other firm, for $15 per ton, glares wrathfully at his neighbor who tells him he has just sold his for $20 per ton, and "ten to one," rushes off to see if he can "sneak" out of his bargain.

The middleman who bought for $15 per ton sells out to the one now paying $20, and concludes he will do something else.

Children of those in moderate circumstances go about hand-in hand to get work "cutting" for a bit a box for the season, that they may earn money for the "4th" and the circus near at hand, and for clothes and new school books in the fall.

The rancher whose head is full of the discussions, pro and con, in the paper, about sulphuring, who has burnt more French sulphur to the tray, and left his fruit in the sulphur-box longer than the intelligent, conscientious fruit-grower does, now flops about, buys some wondrous new invention of a dryer, off-hand, on the recommendation of one of those agriculturists, "who talk too much in the papers," (and who, rumor hath it, "was paid for his puff"), struggles along, gets behind hand with his fruit, devastates his woodpile, "magnifies his English," and goes back to the old style, more ruthless, more defiant of chemical residuums, more eager for the almighty dollar at any cost, than ever.

But the small rancher, the reader, the conscientious, who sticks to his ranch right along, averaging up the years, who is sure "apricots are in it this year," laughs at them all.

When the middelman comes along offering $15 per ton for his fruit, green, he began to laugh, saying:

"O, I know why you fellows are bearing the market. You lost last year. Sorry, but they are worth more than that to me."

When the same middleman comes again, offering $20 per ton, this same persevering rancher grins a broader grin and says:

"O, I'm onto you fellows. I dried last year, made small wages to be sure, but I didn't lose. This year may be one of the years that *pay*. *I'm going to be there* if it is. Besides, you are figuring on six to seven pounds of green fruit to one of dried. I know my orchard, I don't irrigate, I cultivate. My fruit always runs five pounds green to one of dried. Yes, sir, if it pays you to buy and dry, it will pay me more. There won't be any waste fruit then. See? The middleman smiles a left-cornered smile and rides away.

So this small rancher with his family's help and the help of eager neighbors who have no orchards, greets the five o'clock morning sun, and "Foster's hot weather" which comes on apace, and settles down to his summer's work with a satisfied "Ha! ha!

But the "tenderfoot" from the Middle States, and the visitor from Florida, go about through the rainless weeks to come staring in astonishment at the green alfalfa patches, the wilderness of corn and pumpkins. They pluck the juicy apricot, learning to distinguish in flavor between the red and white, developing dainty preference, never eating the apricot skins, when at first they raved over fruit picked off the ground. They sit to meals of apricot short-cake with whipped cream accompaniment; and the "tenderfoot" reads of the revels of wind, rain and thunder in his home paper, and takes another piece of short-cake spread with its slices of golden fruit, to make himself doubly sure that he is in California. The Floridian thinks of his orange grove and homestead in the couutry of sand and daily summer rains; of endless pine forests and hammocks; where tiny cows wander, giving only a bowl of milk a day, half starved on the scanty "wire grass;" where vegetables and fresh meat are at starvation prices; where every place has its well-holes filled with empty tin cans; and he ladles himself out another spoonful from the generous dish of cream, and says

"After all, California—" and stops his mouth with a toothsome piece of short-cake.

Yes, it is the last week in June and *apricots are here.* AUGUSTA E. TOWNER.

A Rose Jar Recipe.

It always seems a pity to see such quantities of fragrant rose leaves go to waste every year, when their delightful perfume could be so easily preserved in a rose jar. For the benefit of such of our readers as would like to utilize their rose petals in that way, we append the following recipe taken from *The Garden's* Story:

"I don't refer to the dry, soapy-smelling article of commerce labeled, 'Tea Rose Potpourri from Japan,' but to the old-fashioned 'rose jar' made from your own garden roses, blended with a sufficiency of other sweets to hold its perfumes immutable. It is difficult to give a precise recipe for a rose potpourri, for no two ever turn out alike. I would say, however, with fat old Baron Brisse, in a preface to an entree in his Petite Cuisine: 'There is one point in this preparation rather difficult to seize; but this is the way to set about it in order to be complimented.' The roses employed should be just blown, of the sweetest-smelling kinds, gathered in as dry a state as possible. After each gathering, spread out the petals on a sheet of paper, and leave until free from

all moisture; then place a layer of petals in the jar, sprinkling with coarse salt; then another layer and salt, alternating until the jar is full. Leave for a few days, or until a broth is formed; then incorporate thoroughly and add more petals and salt, mixing daily for a week, when fragrant gums and spices should be added, such as benzoin, storax, cassia buds, cinnamon, cloves, cardamon and vanilla bean. Mix again and leave for a few days, when add essential oil of jessamine, violet, tube rose and attar of roses, together with a hint of ambergis or musk, in mixture with the flower ottos to fix the odor. Spices such as cloves should be sparingly used. A rose potpourri thus composed, without parsimony in supplying the flower ottos, will be found in the fullest sense, a joy forever."

A Bride's Household Belongings.

Perhaps a few words to the brides who are getting things ready for housekeeping will not come amiss, says Carrie May Ashton in *American Agriculturist*. One writer says: "Allow at least five sheets, one pair of blankets, two comforters and a spread for each bed. Provide an extra spread for every two beds, and then they can be washed turn and turn about." For sheets, the double width, which does not require a seam in the middle, is best. The forty-inch unbleached is, of course, much less expensive, and wears well, but requires a seam in the middle. Pillow-shams are made of fine linen, hem-stitched and embroidered in white rope silk or in floss. Others are trimmed with Irish and Venice point around the outside instead of hem-stitching. Bath cloths, more commonly called washrags, can be bought by the yard or piece, and should be overcast all around, and then finished with a pretty edge crocheted of white cotton. Made in this way, they last much longer than as if they were left to ravel. Some prefer to knit or crochet them of cotton, in some plain stitch, but it seems like a waste of time to put so much work on a little thing.

Bureau and washstand scarfs are of linen, hem-stitched or fringed, and done in outline work. Mats for the brackets on the bureau can be crocheted of white and colored zephyr in whatever color the room is furnished. A pretty pair have the foundation of white yarn, and are rounded to neatly fit the brackets. White saxony is used for the fluffy edges. Fourteen stitches crocheted very loosely are put in each stitch around the edge, then the next row inside has twelve, the third ten and the fourth eight. Into the center of each of these is crocheted the same number of stitches in pink saxony. In regard to the quantity of table linen, that depends upon how much you expect to entertain. Five tablecloths, three for every day, and one dozen napkins, one fringed teacloth, with napkins to match, and one fine, long one for company will answer very well to commence with. A dozen and a half of the large napkins, seven-eighths, as they are called, will be needed for company, and a set of fruit napkins to save the others. Many prefer to purchase for every day wear the unbleached in pretty patterns, which wear well and are very pretty in their brownest tint. Much of the new table linen is hem-stitched. A cover of felt or canton flannel is needed to put under the cloth, and makes a table look much nicer. Six or seven traycloths will be needed, and can be purchased already hem-stitched, fringed and stamped ready for outlining, or they can be made at home from web linen. The fine German linen is much used for these at present. Others are of handsome damask. Conventional designs are the latest thing for outline work, which is done in white silk or linen floss. Red is used for every day wear because it washes so well, but white has the preference. Carnation pinks, yellow and pink roses, buttercups and daisies, are seen on many of the beautiful traycloths and overlays, in their natural colors. Sideboard scarfs are of Momie linen or plain German, and made in similar style. Doilies are round and square, either fringed or hem-stitched, and as dainty and pretty as it is possible to make them.

Everything should be marked with the maiden name of the bride. My advice to brides is, to have everything as nice as possible, but do not spend weeks and months making enough things to last half a lifetime. Better spend your time outdoors in the glad sunshine and fresh air, or in reading good books. A young man was heard to say, not long ago, it looked as if a girl never expected to have anything more, when she laid in such a supply of clothing and household linen. Whatever you buy, be sure that it is a good article. It is poor economy to buy cheap goods.

YOUNG FOLKS' COLUMN.

Tommy's Lady's Slipper.

"Thomas Henry," said Mrs. Blake, as she saw her boy looking from the south window, "you're thinking about those flowers like you brought home last year from the lower end of the island. But, Thomas Henry, there are things more important closer to hand." She pointed to the empty wood-box and the large basket in which drift-wood chips were brought up from the beach.

Tommy's face flushed as though he meant to say that he was tired of bringing home chips. But he quietly took up the basket and went slowly toward the shore.

The short grass among the rocks and ledges showed scanty signs of life in that dry season. Farther down, toward the edge of the sea, dwarfed spruces and huckleberry bushes looked as though they had long ago become discouraged in trying to grow. They appeared rough and lonesome.

But when Tommy came nearer to these he saw a man eagerly searching among them.

"Have you lost something?" he asked as he hurried forward. "Maybe I can find it for you."

"Thank you," said the stranger in a very pleasant tone, "but I've found something instead of meeting with a loss. And I'm sure you'll enjoy seeing it as much as though you had helped look for it."

And when Tommy glanced down where the man pointed, there was a very fine pink lady's slipper.

"O, that's just like the flower I found once in the woods at the lower end of the island, right by an old pine stump," said Tommy, with sparkling eyes. "I'd seen two green leaves close to the ground lots of times, but that was the only blossom I ever found with them. I wanted to keep that one, but mother thought maybe it was poison."

That was all Tommy said, though he remembered how angrily his plant had been thrown out of doors, as his mother told him there "was no sense in hunting after such things as that."

"It's a brave little beauty to hide away here among the rough bushes," said the man. "I'm sure you can find more of them if you look around. I see you enjoy such things. Maybe you'll like to write me all about the different plants you find here on the island."

"I should like to if I had time," answered Tommy, slowly, as he looked down at the flower. "But I must help mother what I can. I must go for the chips right away. I'm so glad you showed me this so close by home."

And the boy could not move off toward the shore until he had stooped and touched the lady's slipper as softly as though it were made of velvet.

The man seemed to be gazing out to sea when the boy bade him good-morning.

"He answered me very pleasantly," thought Tommy, as he picked up the chips. "But he was thinking hard about something. I guess he felt real sorry because he couldn't stay here all day."

And then Tommy began to think so hard that for several minutes he forgot to put any chips in the basket. When at last he started for home, however, he had a good supply of driftwood for his mother.

He stopped to look again at the lady's slipper as he went off the shore. He was still gazing at it when he heard his mother coming rapidly toward him.

"Something must have happened," thought Tommy, but before he could ask what it was his mother spoke. "Why, Thomas Henry, you've been seeing things real clear for a boy of your age. I guess there is some sense in looking at plants and such things, after all. There's been a man at our house who's changed my mind a good deal.

"I was weeding in the garden when he came along. Guess I looked pretty discouraged because my garden seeds and plants ar'n't doing as well as I expected. And he told me in such a kind, polite way how I needed to shelter things with some spruce boughs and the like of that, just as though he'd worked in a garden all his life."

"Did he have on a light brown overcoat?" asked Tommy eagerly.

"Yes. And he said he'd noticed you so willing to do as I wished. Said he'd like to have such a boy to hunt up flowers and plants, as he hadn't but a little while to stay on the island. And I told him right out that you could help him. I couldn't keep from it, he seemed so kind and obliging. And, Thomas Henry, he's going to send me one of the fancy ferns that grow in the house, like one Mrs. Captain Bunker is so proud of."

"And I haven't got to the end of it all, either," Mrs Blake went on before Tommy could say a word. "Mrs. Bunker came running down almost as soon's he'd gone, and told me he was the great botanist professor at Harvard College. She said he was so kind and good to boys. She thinks he'd do more for you. And then, Thomas Henry, I must own up. From the way she talks it does pay to have an eye to the posies as well as to fish and such things. But then it was his nice way of talking about the garden that first opened my mind, just as his his heart was moved toward you by your seeing so clear that your first duty was to obey your mother, if you did have a great liking for posies."

"I shall hunt hard after the plants," said Tommy, with a happy smile. "And if he sends me books to study I shall make good use of them."

"There's no doubt but the books will come," said the mother. "Mrs. Bunker said this Prof. Gray has always been real kind to willing-hearted boys."—Charles N. Sinnett.

One Little Newsboy.

The day was cold and dreary. The piercing wind blew fiercely, chilling the body and causing all humanity to wish themselves within their homes.

The sun played hide and seek with the threatening clouds. The streets were partly deserted, and those brave enough to face the storm hurried on, anxious to seek shelter.

At a certain street corner where many people were passing stood a little newsboy. His ragged clothing and pathetic face told only too plainly that poverty was not unknown to him. Few noticed him as he called lustily, "Have a paper, sir? Tribune, Herald, Times," etc., until it seemed as if his small lungs would collapse.

His hands were bare and cold, and he muttered to himself, "I must hold out even if I almost freeze; for if I'd go to Granny now we wouldn't have no supper." Again he began calling his papers with renewed energy.

The streets were at last almost deserted and he began to think it useless to stay longer in the cold. But an old gentleman came up to him and purchased several papers. After finding the change the gentleman slipped his pocketbook carelessly into his pocket, leaving it ready to drop out at any slight disturbance.

The newsboy, with the keenness of his race, saw it all and said gaily,

"I will follow that fellow and see that his fat old wallet don't get stolen," and he chuckled contentedly to himself.

A slight thud on the pavement caused him to look down, and lo! there lay the precious pocketbook, its owner plodding on through the storm, evidently lost within himself, his pocketbook farthest away from his thoughts.

The newsboy looked about him, and after assuring himself that no one had noticed the loss, thrust the pocketbook into his own pocket and ran swiftly on, bent on finding some secret place where he could examine his find.

A dry goods box in a back alley gave him his vantage ground. He was happy, for once, in the anticipation of what was to come.

"Massy! I've struck a gold mine," said he as he saw roll after roll of large bills, I'll buy Granny a shawl and get some shoes for myself, and some fuel—and my! we're rich."

So meditating he started for the place where he and his beloved Granny lived.

I wonder now if that money really belongs to us," he mused. "Maybe I'll have to give it up. I believe my teacher in the mission school would say so, and I know Granny would, so I'll just not tell her— I'll think what to do with it."

"What's the matter? Are you sick?" his grandma asked kindly as he entered a small room in a large tenement house, or rather, what they called "home."

"No, just cold and hungry," said Teddy.

The grandmother hurried to cook the meagre supper that her kind little grandson had earned by selling papers.

That night, sleep refused to visit his weary eyelids, the pocketbook was evidently troubling him, and at last after trying to convince himself that it would be all right to keep it, and still not finding rest, he began to wish he hadn't found it.

"Maybe I kin take it back to him. He'll have it put in the paper about losing it, and I'll do that."

Although I want the money awful bad, it makes me feel mean."

The next morning after a scanty breakfast he pocketed the money that was beginning to be a source of annoyance to him, and went out to begin another day of tiresome routine.

The sun shone brightly and he said to himself as he purchased his roll of morning papers:

"I'll just look and see whether that fellow has advertised or not."

So saying he rushed madly across the street, looking neither right nor left. But, alas! for our poor little newsboy. A pair of run-away horses ran him down, and before the frightened spectators could be of any use, they had passed over him.

By the time they reached the next crossing the horses were stopped. The occupants, an old gentleman and lady, returned to see what damage had been done. When the lady saw the bleeding form of a child lying there she ordered him to be put in the carriage and the three were driven rapidly away and soon reached a beautiful home.

Marble steps led to the doorway, and within there was every evidence of luxury. Teddy was carried tenderly into a dainty little bedroom, contrasting strangely with his ragged clothes.

A doctor was summoned, and after examining his wounds pronounced them serious, but not fatal. When the nurse removed his tattered clothing she found the pocketbook that he had stowed away so carefully. When she handed it to her master he exclaimed:

"It is my pocketbook that I lost yesterday. Little did I think I would ever see that again. Nurse, give the boy the best attention and when he gets better I will come up and see him."

When Teddy regained consciousness he was very much surprised to find himself in such a strange place, but when all had been explained to him he sent a note to his granny, telling her of his accident.

When he was entirely well and his cheeks rounder and rosier than ever before, his kind friend gave him a situation in his dry goods store.

He rapidly gained in health and spirits, and his strict honesty and faithfulness induced his employer to give him higher wages, so that he and his faithful granny no longer know what hunger is.—Mary B. Vale in Prairie Farmer.

Where Are Our Ostrich Egg Painters?

Ostrich eggs, artistically painted in a prize competition, are to be a feature in the exhibit from Cape Colony, South Africa, at the World's Fair. This competition has been held. Nineteen contestants, mostly young women, participated, and furnished designs which the Cape press praises highly as being very artistic and beautiful. Each contestant submitted half a dozen beautifully decorated eggs, all of which will be exhibited at the World's Fair. The subjects of the paintings include flowers, birds, animals, landscapes, public buildings, etc. The gem of the whole collection, painted by Miss Van Reenan, winner of the first prize of £7 10s, is reported to be a fairy figure standing on a vine leaf drawn by a butterfly, with underneath the words, "to Chicago."

The American Ostrich Company has sent to Chicago for exhibition at the World's Fair 30 birds from its ostrich farm at Fall Brook, San Diego county, California. The ostriches have been sent on thus early in order that they may become thoroughly acclimated by the time the fair opens and appear at their best. But this will not have the esthetic features of the Cape display.

ROYAL

BAKING POWDER

Absolutely Pure.

A cream of tartar baking powder. Highest of all in leavening strength.—*Latest U. S. Government Food Report.*

AGRICULTURAL NOTES.

CALIFORNIA.

Butte.

FIG NOTES.—Oroville *Register:* Mr. C. H. Leggett, who has given much attention to the fig, the giant of fruit trees, recently said: "E. Ruhlman, of the firm of P. Ruhlman & Cox of New York City, recently examined some of the white Adriatic figs that we put up last season and pronounced them a perfect fig. He opened the boxes and examined them with care and found them free from worms or other insects, yet said that at this season of the year it was almost impossible to find the imported figs free from worms. He thinks the California figs can be sold in quantities in New York City. He is president of the New York Produce Exchange, and is well posted as to the fruit markets of that city. He said it was advisable to put up the figs in the same manner that they were put in foreign lands and promised to send us a sample box to show the manner of packing. He thought it advisable to use the same style and kind of packages that the imported figs came in. If the fruit was nicely and attractively packed, he was certain there would be a good sale for it at remunerative prices. Mr. Leggett, in speaking of his own trees, said he could not see much difference in the growth of the trees in the bottom or on the bluff. Possibly the former is a little larger tree. They found the fig would sour when irrigated, and had learned by experience that labor was too high to pick this fruit. If they had to gather the figs by hand they would dig up the trees, but the fig would dry on the tree and fall to the ground. They ought to be graded after being dried, so as to put the largest and finest in one grade, the second in another, and the inferior in a third. They had found no insect injures the trees, but that the fruit will occasionally sunburn. They scalded the fruit in hot water or weak brine. The fruit was then drained, put in a sweat box, and, later on, dipped in hot water a second time before being packed for market. The sweating equalized the moisture, the dry ones taking up the surplus moisture of those that were too damp. He was confident that at five cents per pound for dried fruit, there is money in growing figs.

Fresno.

RAISIN ACREAGE IN THE STATE.—William Harvey in Fresno *Republican* says: After a careful investigation of the best authorities, and a partial comparison of the same with the assessor's books of Fresno, I find that Fresno has 1002 raisin growers who own 24,103 acres of raisin vines, a little more than one-half that which she is credited with. The California Directory Company of San Francisco printed a list of all the growers in the State to December, 1891. While the directory gives no totals, I have taken the individual data and added them together, with the following result:

Fresno	1002	24,103
Alameda	31	184½
Butte	14	614
Colusa	25	387½
Contra Costa	5	135½
El Dorado	14	129
Inyo	3	9
Kern	40	1,191
Los Angeles	6	23
Merced	14	212
Orange	1	4
Placer	24	510
Sacramento	20	312
San Bernardino	225	2,632
San Diego	170	4,414
San Luis Obispo	1	1
San Mateo	1	15
Santa Clara	14	98
Santa Cruz	5	21
Shasta	63	241½
Solano	19	430
Stanislaus	4	529
Sutter	29	282½
Tehama	21	227
Tulare	144	3,006
Ventura	12	197
Yolo	22	1,125
Total in California	1929	41,024⅙

These totals are important, inasmuch as they afford a basis upon which can be calculated the probable output of raisins for the State of California this year, and will negative the cry of overproduction, which cry seems to have taken hold of our farmers and had a very depressing influence upon prices.

Inyo.

BEEKEEPERS' ASSOCIATION.—Bishops' *Register:* At the beekeepers' meeting held July 2d, Messrs. T. F. A. Connelly, H. Trickey and Don Burdick were appointed a committee to prepare by-laws for a Beekeepers' Association. A vote of thanks was tendered Mr. Burdick for having discovered the existence of foul brood and his efforts toward its suppression. It was decided to call a meeting, to be held July 23d, of all the beekeepers of the valley, to form an association for general systematic protection. Every owner is invited and urged to attend, no matter how few hives he may possess.

Kern.

HOW TO UTILIZE ALKALI LAND.—Bakersfield *Echo*: On the Rio Bravo vineyard ranch there is a piece of pretty bad alkali land, and Supt. Hanilton has been experimenting with various crops. This year he planted some tobacco seed and has secured a splendid growth. The value of the leaf cannot yet be determined, but it may come about that tobacco and alkali will go well together. If the right kind of leaf can be produced, there will be a good profit in it. Speaking of alkali, reminds us of a plan suggested by J. A. Rarick a few days ago for seeding such land to alfalfa. Where this salt is too strong to admit of the growth of alfalfa seed, he says it may be stocked by transplanting the roots. For instance, put the alkali spot in good condition as regards moisture; then break up a piece of alfalfa and haul the roots that are plowed out on to the alkali land and distribute them along fresh furrows and at once cover them over. He says the worst fields can be stocked in this way. As is well known, land impregnated with this salt produces the heaviest crops of hay when it is once seeded. It is only in the worst cases that this method has been reorted to.

THE ARMY WORM.—Bakersfield *Californian:* In certain localities the army worm has made its appearance in this county. It seems to generate in sunflower thickets, where they are let grow along the banks of some canal, and also appears in orchards, where, between the rows, potatoes and other vegetables have been planted. But a simple method has been devised, which knocks him out of an orchard of young trees in short order. This is the prescription given by one who has practically applied it with entire success: Make a layer of wood ashes and spray it with kerosene oil. Put on another layer of ashes, spraying again with the oil, and keep on so doing until enough material for the needs has been prepared. Mix this thoroughly and put a charge into a sack, which can be carried in front of the distributor and from which a handful can be thrown upon each infested tree. The ashes serve as a mordant for the oil, which of itself would be too strong as a spray upon the leaves. One handful thus dusted upon a young tree is sufficient to kill all the army worms that have infested it. The remedy is certain in its effect and costs hardly anything beyond the labor of application.

Los Angeles.

THE "MAMMOTH RYE."—Cor. L. A. *Express:* R. J. Long of Florence has harvested a small strip of rye of an entirely new and distinct variety, which has a large grain, plump and of light color. He calls it "The Mammoth." This grain he has grown from a few seeds sown last year, and now has sufficient seed to plant quite a piece of land, and will give it a thorough trial. He will also place a sample of the seed at the Chamber of Commerce.

COMPTON CHEESE FACTORY.—Cor. L. A. *Express:* One of the busiest places to be found at Compton is the Anchor Cheese Factory, where is manufactured a fine quality of cheese, which is known to consumers as the Anchor brand. The factory receives daily 6000 pounds of milk supplied by the farmers of this vicinity, requiring the milk of 400 cows. From this amount of lacteal fluid 650 pounds of cheese is turned out every 24 hours. This factory is operated on something of a cooperative plan, the manager, J. J. Harshman, receiving so much per pound for making the cheese, the patrons getting the difference between the cost of manufacturing and selling price, less the cost of marketing.

WALNUT GROWERS' ASSOCIATION. — Downey *Champion*: The Los Nietos and Ranchito Walnut Growers' Association, whose members are all growers of this section, has been for several years the principal shipper of this great staple crop. The crop of 1890, handled by the association, representing the product of 47 growers, amounted to 761,019 pounds (6536 sacks), for which was received $59,611.84. The crop of 1891—51 growers—was 702,469 pounds (6619 sacks), and brought $58,020.83 In addition to the above, growers, not members of the association, raised and shipped walnuts in amount and value equal to about 25 per cent of the association's shipments. This year upward of 90 growers have joined the association, and with the big harvest now in prospect and the increased acreage of young groves coming into bearing, the prospects are that the yield and receipts for the crop of '92 will be largely in excess of previous years.

Placer.

A RANCH FARMED FOR GOLD, GRAIN AND FRUIT.—Georgetown *Gazette*: About a mile north of town is the Holmes ranch, which within the past eight months has produced nearly $4000 in gold, including a $1000 gold nugget and a field of oats standing seven feet above the ground, from which a bunch of stalks was taken by B. C. Currier (a '49er), and placed on exhibition at the postoffice, which measured seven feet and six inches in length. The ranch also contains a large orchard of mostly winter apples, noted for their fine flavor and good keeping qualities.

San Bernardino.

ONTARIO CITRUS FRUIT SHIPMENTS.—Los Angeles *Times*: The fruit shipments in June were as follows: Oranges, 560 boxes; lemons, 96 boxes; green fruit, 12,170 pounds; dried fruit, 2380. The summary of citrus fruit shipments for the season to date is as follows:

	Oranges, boxes.	Lemons, boxes.
December	400	80
January	438	268
February	305	80
March	4,799	133
April	1,957	176
May	1,580	165
June	560	96
Total	10,020	998

This is 36 cars of oranges and nearly 4 cars of lemons—40 cars. There are some oranges yet to ship and about a carload of lemons.

EFFECTS OF FERTILIZING AN ORANGE GROVE.—Ontario *Observer*: Byron Ford's orange grove is one of the oldest in the colony. It has never made a satisfactory growth, nor has it ever borne a fair crop of fruit. When Mr. Ford came in possession of it one year ago, he knew nothing of orange culture, but he knew what the grove needed to make it one of the finest in Ontario. Upon his return last fall from the East, he had the grove plowed and heavily fertilized. The change which this treatment has wrought is wonderful. So rapidly have the trees grown and so dense has the foliage become that few who knew the grove in its days of starvation would recognize it now. The trees are now healthy and vigorous, and being well set with fruit, promise to mature a large crop of oranges.

DECIDUOUS FRUIT.—Ontario *Observer*: Harwood & Woodford have finished picking the cherry crop on the Dwinell place, at the head of Euclid avenue. The 100 trees, which cover one acre, produced 2838 pounds of fruit, which was sold for $283.80. We get this statement direct from the foregoing persons, and it can be relied upon. The trees have not been irrigated for two years and have been cultivated but once within a year. The elevation of the mesa lands is that required for the successful production of cherries, and as this popular fruit can be grown on them without water and with but little cultivation, we hope to see them more largely utilized for this purpose. There is now every encouragement to persons owning land in this locality, unfit for citrus fruit culture, to plant same to deciduous fruit trees. Here we have a cannery and drier capable of utilizing 1000 tons of fruit each season, and at North Ontario is a fruit company that is prepared to buy and prepare for market a large quantity. At present all fruit is either canned or dried, but in the future a large per cent of the crop will be marketed green. Both the Santa Fe and the Southern Pacific are running green fruit trains to the East on passenger time, and much of the crop of Northern California is being shipped direct to the trees in a fresh state to Chicago and New York. Next season much of the fruit in this locality will be marketed in this way.

ORANGE OIL.—*Observer:* A Riverside man has just succeeded in extracting from ten pounds of orange peel, oil in the proportion of 50 pounds to one ton of peel. Orange oil is a valuable commodity, it being worth $7 a pound. As a ton of peel will yield oil to the value of $300, the profits of such an industry will doubtless prove satisfactory to its founder. In this connection, it may be said that orange blossoms also yield a valuable product. The facilities for utilizing the by-products of our fruit orchards time will soon bring, and, when established, all fruit not fit for shipment in its natural shape can be profitably utilized in other ways.

Siskiyou.

A LARGE FARM.—Sisson *Mascot*: The Edson ranch at Gazelle comprises 3200 acres of choice lands and has yielded a fortune to Edson Bros. within the past few years. They have all the latest improved farming machinery, and employ from now until late in the fall upward of 20 men, their daily expenses exceeding $50. They are now cutting their first crop of alfalfa, and will have about 125 tons. The second crop will give them at least 100 tons more, making a total of 225 tons in a single season. Their hay crop alone insures them an income of $1500. From the raising of grain and cattle they realize probably $8000 more per annum.

Santa Clara.

CUPERTINO FRUIT NOTES.—Cor. S. J. *Mercury:* Peaches are ripe and apricots will soon be. Plums are also ready for the market; that is, of course, the early kinds. The prune crop will be short but of superior quality. The grapes, during the past two weeks, have been dropping badly, so that crops will be much shorter than first estimated. Apricots in this vicinity have a fair crop, but peaches are very light in most orchards. Mrs. D. Durkee has built a neat drier on her place. Antonio Zicovich intends putting another pumice still up in his distillery on his ranch at this place. The Lincoln Wine Company is contemplating a considerable addition to its already extensive plant.

Tehama.

WHEAT RUST.—Corning *Observer*: Wheat is turning out very bad on many of our small farms—it is so much rusted. Never before was there such a fine prospect for a splendid crop, but a hot sun coming after a shower caused much rust. There will be one-third less of of wheat than was expected. Some farms have very fine wheat. Out on the hills the wheat could not be much better. On the whole, if nine sacks are averaged, it will be the outside. Many small farmers had their crops mortgaged, and the poor souls will not have enough to pay for goods and money received.

Tuolumne.

A CORK OAK.—Stockton *Independent*: J. T. Salmon of French Camp has brought to the *Independent* office a section of cork bark which was taken from a tree near Tuttletown, Tuolumne county, from land belonging to the Paterson mine. There are two trees there of vigorous growth and unknown age, as no one now there knows when and by whom they were set out. These trees are between 40 and 50 feet high and about 18 inches in diameter. The trunks are smooth and without limbs until near the tops. Mr. Whitney, who is in charge of the property, intends to peel the trees, which can be easily done, and use the bark. Mr. Salmon intends to plant across from the trees at his place in this county and raise cork trees. [The trees are probably from acorns sent out by the Patent Office in the '50s. There are similar trees from the same source in half a dozen counties of the State.—EDS. PRESS.]

Tulare.

LIVE STOCK AND IRRIGATION MILEAGE.—Visalia *Times*: The assessor returns the following live stock and irrigation mileage in this county: Live stock—Calves, 3060; beef cattle, 226; cattle (stock), 15,600; colts, 7547; cows (thoroughbred), 110; cows (graded), 6792; goats (common), 1759; hogs, 15,346; horses (thoroughbred), 10; horses (standard), 51; horses (American), 2806; horses (common), 12,087; jacks and jennies, 59; mules, 1429; oxen, 80; sheep (imported), 1000; sheep (common), 185,521; lambs, 3885. Irrigation ditches in miles: K. C. & I. Co., 25; Con. People's D. Co., 4; K. and Mill Creek Co., 5; People's ditch, branch, 12; People's ditch, main, 7; People's ditch, branch, 8; L. K. R. D. Co., 14; Griffis Side D., 5; Settlers' D. Co., 15; Extension D. Co., 3; Lakeside D. Co., 25; Mussel Slough D. Co., 10; Pioneer D. Co., 3½; Wutchumna D. Co., 16.

FRUIT CROP.—Traver *Advocate:* The fruit crop in this vicinity is still looking well. In some localities a good many of the grapes have fallen off, while in other places the vines are as full as they should be. The apricot crop is turning out well, and considerable of it has already been disposed of. The peach crop promises to be very heavy. The early peaches are nearly all gone now, but later varieties are beginning to come on.

DRIED FRUIT NOTES.—Grangeville Cor. Visalia *Times:* The fruit on the Verona orchard has been purchased by Tin San. He paid $75 an acre for it. He has just about finished drying the apricots. He sold part of the fruit for 10½ cents per pound, and has been offered 10¼ cents for the remainder. He expects to have 25 tons of peaches. He expects that peaches will not sell for over seven cents per pound. Peach-drying will start in about three weeks. The peach trees in the Verona orchard are so heavily loaded that they are compelled to prop the branches up. Herman Nathan has had a splendid bleacher erected. It holds 360 trays at one charge, and works to perfection.

OREGON.

HOPS IN THE WILLAMETTE VALLEY.—Eugene *Register:* Thomas Osburne, of London, has been looking up hop matters in Oregon, California and Washington the past few weeks. Mr. Osburne thinks Willamette valley hop-raisers have an important advantage over the growers both of Washington and California. In the last mentioned State the extremely hot weather prevents the lice from doing much damage, however. But the land there is high-priced and in the Puyallup valley it is beyond the reach of the smal hop grower. The soil and climate of the Willamette valley is well suited to the production of hops. The area is so large that the price of land is kept within reasonable limits. Mr. Osburne is of the opinion that most of the Willamette valley hop growers do not cultivate their fields with proper care. The lack of proper care becomes evident when it comes to marketing the crop. Formerly New York hops were preferred over those raised on the Pacific slope, but now the two bring about the same price in the English market. But the Pacific coast must soon lead in both quality and quantity. The hops of Lane county are among the best received in London, and it is worth while making the effort to get them.

NEVADA.

SUGAR BEET GROWING.—Virginia *Enterprise:* The U. S. Department of Agriculture has just issued Bulletin No. 33, Division of Chemistry, upon the Sugar Beet Experiments in 1891. Eighteen samples were received for this State from three counties, from one of which, Washoe, was received 15. The average percentage of sugar in the beet for the State was 17.20, and the average weight of beet 11 ounces. Washoe county, which practically furnished all the samples from the State, also leads in the quality of the beets obtained. The numbers representing them are almost phenomenal, with the exception of the average weight, which is about what it should be. This doubtless accounts for the fact that the beets were exceptionally rich. The 15 samples from this county showed an average percentage of sugar in the beet of 18.02, and average eight of 9 ounces. These figures place Nevada at the head of the list of beet-growing States for quality, and such beets raised in quantity would soon enable the people of Nevada to erect sugar plants, and thus open up an industry which would be of great value.

WASHINGTON.

CROPS IMPROVED.—Spokane *Chronicle*, July 6: People who have traveled through the grain sections of the State report that the general damage to crops is comparatively slight. There are some sections, however, that have sustained heavy losses. Medical Lake, Endicott, Cheney, Marshall Junction, the western part of Spokane and Whitman counties and a good portion of Adams county have suffered losses which will probably aggregate 30 per cent. The damage in Walla Walla county is greater than throughout the Palouse belt, but in all it will not reach a loss of 10 per cent. Stevens county will have an average crop if no further damage is done. The recent rains, with the cool winds, have restored the confidence of the farmers, and they do not now fear further loss. In a few days the harvest will begin, and should the weather again become hot and dry, the crops are so far advanced that no damage could be done. The predictions are that the aggregate yield of grain in this State will equal, and probably excel, the production of any former year, owing to the fact that the acreage is in excess of any previous season. The farmers are making vigorous preparations for harvesting. Much of the hay crop has already been cut, and by the time the first crop has been stored, the grain fields will be ripe and ready for the reapers.

$500,000

TO LOAN IN ANY AMOUNT AT THE VERY LOWEST MARKET rate of interest on approved security in Farming Lands. A. SCHULLER, Room 8, 420 California Street, San Francisco.

THE firm of Smith's Cash Store is steadily gaining popularity with its large list of country patrons.

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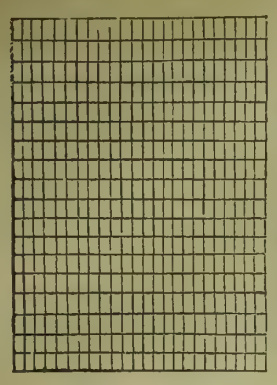
IMPORTANT TO FRUIT GROWERS.



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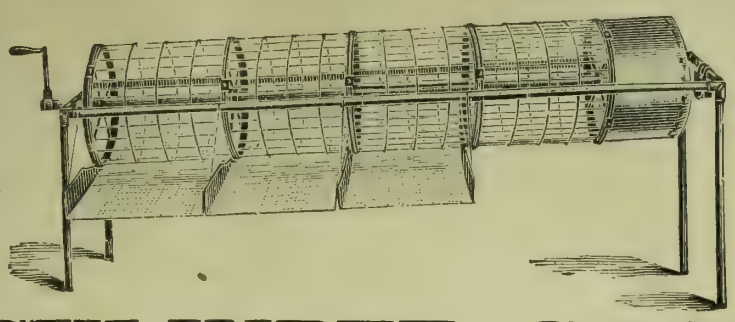

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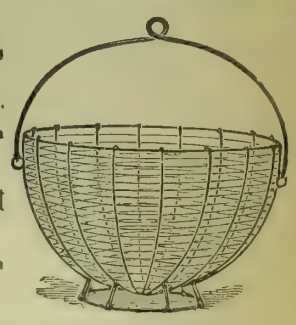

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I make all sizes of this Grader, from the large 30-inch cylinder down to a small hand machine for the use of growers whose crops are small. I furnish the Grader mounted complete, or the Cylinder alone, if, as is often the case, the purchaser prefers to mount it to suit himself.
Send for circulars and prices.

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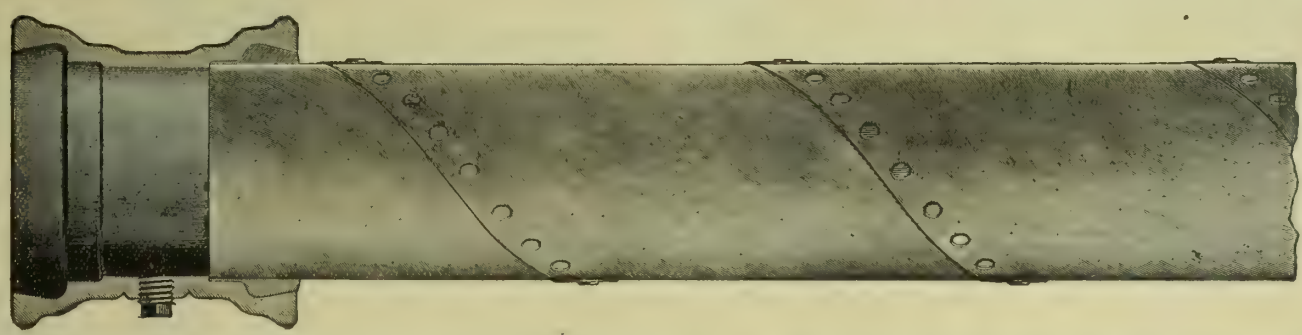

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For $125 to $150 that cannot be beat for $150 to $200.

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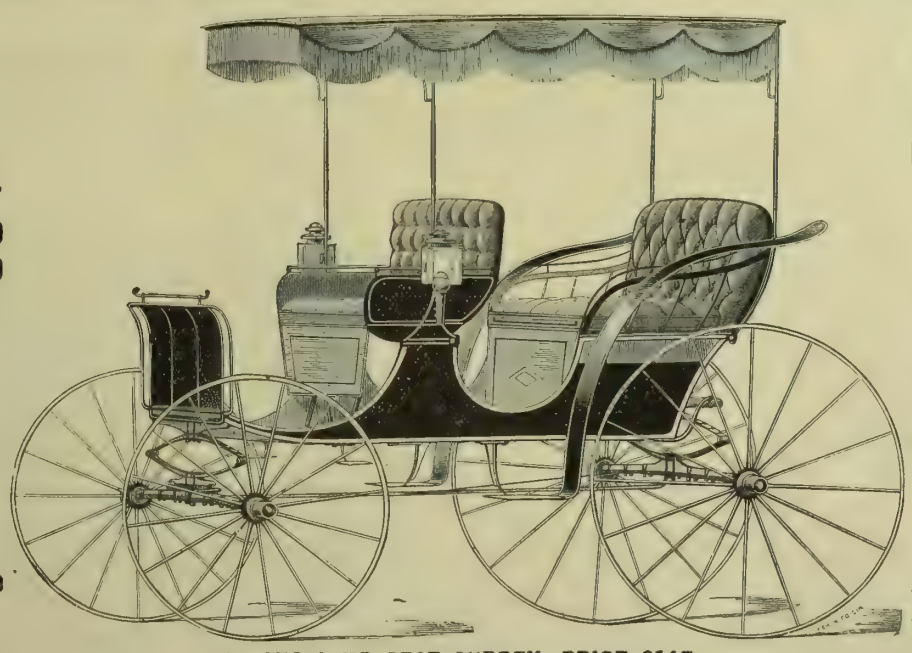

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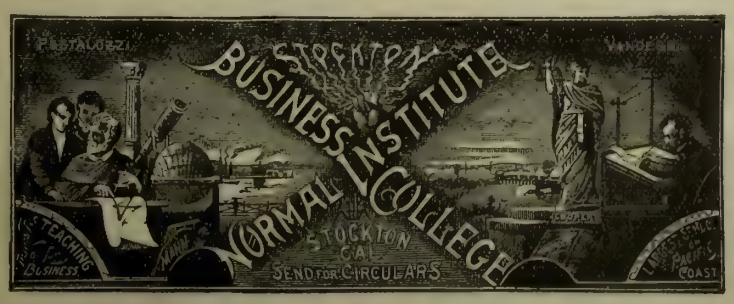

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The Stock Yard.

Stick to Your Specialty.

Too many stockmen lack courage to face adversity bravely. Years ago many wanted buyers for their sheep at any price. Now some of the same parties are buying sheep at very high figures. The same persons probably sold cattle, hogs or horses, too, at a sacrifice, in order to get into the sheep business again. The wooly tribe is paying its way handsomely in recent years, and following the common inclination, all wish to rush into this line of work, and, of course, they will break it down. The young man who has a special adaptation for sheep breeding is fortunate at being able to begin at this time; but he is liable to be tempted to try some other kind of stock when reverses come. Several varieties of animals on the farm, with one as a specialty, is the safer policy, and when one's specialty is "down" is a good time to improve by buying a better type of breeding females as well as the best sire one's means will warrant. The prosperous shepherd should now be hedging against a day of small profits, by securing some pure-bred cows, draft mares, etc., while they are cheap. The majority of farmers cannot afford to be specialists continually; neither can they afford to abandon wholly the kind of stock with which they succeed best. The one who was successful with driving or road horses ten years ago, and did not abandon their breeding and handling for the draft variety exclusively, is destined now to succeed with drivers more surely than he who now sells his draft horses or cattle and begins with the quick steppers. It is largely from experience in handling any variety of stock that profit is to come. If one is in any line of work but half the time (when the boom is on) he loses time in adapting himself to the work. Guarding against losses is difficult even when one is familiar with the farm animals. The kind of stock one keeps from choice, and cares for zealously and wisely, will usually, if not always, pay better even in their depressed season than other kinds about which he has much to learn. Nearly every farmer can keep a few hogs year after year profitably, by giving heed to their needs.

Many farmers, too, can keep sheep in moderate numbers to advantage. Few men are not in position to keep two or more brood mares, and few have any good reason for not owning some cows. Know something about all kind of farm animals and all possible about one or two varieties. Two or more neighbors can cooperate to advantage. Let one study and experiment on the breeding, feeding and diseases of cattle and swine; the other on horses and sheep. Each can be of much service to the other in the emergencies which will frequently arise from disease, accidents, etc.—The Orange Judd Farmer.

Sale of "Doddies."

At Mr. J. R. Harvey's sale of Aberdeen Angus cattle at Dexter Park, Chicago, June 20th, an average of $358.60 was obtained for 25 head. Six bulls averaged $333 33, and 19 females $366.58.

The bull Jim Jams sold for $1000, and the highest-priced cow was Blackbird of Turlington 2d, which sold for $800.

The Turlington herd of "Doddies" has for some time been considered to be the best on this continent, no expense having been spared in the first cost of the foundation animals, nor in the after management.

The herd has been principally under the care and management of Mr. Wm. Watson, son of the late Hugh Watson of Keillon, Scotland, who was one of the first, if not *the* first, to take in hand the improvement of this now superior breed of beef cattle. He was the breeder of the celebrated bull Old Jock (1), calved in 1842, and was one of the greatest show bulls of his day.

It seems a pity that such a herd of cattle, bred and managed with such success, should be dispersed altogether, to do which is Mr. Harvey's intention.

There are still left about 40 head, which will be sold at Chicago on the 14th of September next.

The portion already sold has made the highest average price of any sale of any breed of cattle so far this year, and it is doubtful if it be surpassed.

Doubtless the September contingent is the equal in quality of that already sold, and, under the able management of Mr. Watson, will undoubtedly be brought forward in shape to command top prices.

Domestic Economy.

Easy Way to Wash Dishes.—I have an improved plan for washing dishes which has been practiced in some households in this city, and which has been pronounced a great success. First, have your water boiling hot. This is essential. Provide yourself with a common painter's brush, with a handle about 10 inches long. If the bristles are not found convenient, tie a piece of soft rag at the end of a stick of the same length. Take the plates, and, after removing the scraps, pile them on top of each other in the empty dishpan. Pour enough hot water on the topmost dish to fill the dish. Then, tipping up one end of the dish with your finger, wash front and back with the brush. In France, special brushes trimmed with thin rope about four inches long, instead of brushes, are used for this purpose. Remember, it is not the heat of the plates, but the hot water, that pains the hands. When this is completed, the water will be in the next dish. Lift the clean dish out, and place it on its edge against the wall. Put in more hot water, and perform the same operation on all the other dishes, and when the work is finished, you will find that the heat has dried the plates, and that they do not require to be wiped. By this method, you need not scald or wet your hands, and you also avoid the trouble of wiping, which is half the work.—Detroit News.

English Batter-Pudding.—An English batter-pudding with green gooseberries is made as follows: Pour a pint of milk over a slice of bread, crumbed. Stir in ten even tablespoonfuls of flour. Add the yolks of four eggs, half a teaspoonful of salt, and finally, the whites of four eggs which have been beaten to a stiff froth. Beat this batter carefully, and stir into it a quart of green gooseberries. Put the pudding in a greased mold, or tie it up in a thick cloth which has been thoroughly greased and floured. Let it boil two hours. Serve it with an English brandy-sauce or an old-fashioned hard sauce.

Strawberry Custard.—Separate four eggs, put one pint of milk into a double boiler, beat the yolks of the eggs and four tablespoonfuls of sugar until light, add them to the milk, stir constantly until the thickness of cream, take from the fire and stand aside to cool; beat the whites of the eggs until stiff, add to them four tablespoonfuls of powdered sugar, and beat again until stiff and white. Put about a pint of strawberries into a glass dish, pour over the custard, heap the whites in spoonfuls over the top, dust with sugar, stand in the oven a moment to brown. Serve icy cold.

Vermicelli Soup.—For eight people, take a quarter of a pound of vermicelli, which blanch in boiling water to take off the taste of dust. Strain it, and throw it into some broth that is boiling, otherwise the vermicelli will stick together and cannot be separated unless crumbled into a thousand pieces. Mind, the vermicelli must be boiled in broth before you mix it with any of the puree, and take care to break the vermicelli before you blanch it in the water, otherwise it will be in long pieces and unpleasant to serve up

White Spruce Beer.—Mix together three pounds of loaf sugar, five gallons of water, a cup of good yeast, adding a small piece of lemon peel, and enough of the essence of spruce to give it flavor. When fermented, preserve in close bottles. Molasses or common brown sugar can be used, if necessary, instead of loaf and the lemon peel left out. Sometimes, when unable to obtain the essence of spruce, we have boiled down the twigs. This will be found a delightful home drink.

Berry Sherbet.—Crush one pound of berries, add them to one quart of water, one lemon sliced, and one teaspoonful of orange flavor, if you have it. Let these ingredients stand in an earthen bowl for three hours; then strain, squeezing all the juice out of the fruit. Dissolve one pound of powdered sugar in it, strain again, and put on the ice until ready to serve.

Rhubarb Cream Pie.—One pint stewed rhubarb, four ounces sugar, one pint cream, two ounces powdered cracker, three eggs. Rub the stewed rhubarb through a sieve, beat the other ingredients well together, and just as the pie is ready for the oven, stir in the rhubarb; pour the whole into a plate lined with pastry. Cover with strips and bake.

Strawberries with Orange Juice.—This is an exceedingly nice way to serve a sweet berry. Have them picked carefully and placed in a serving dish, dust with sugar, and then to each quart pour over carefully the juice of two oranges; serve at once.

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QUICKEST. CHEAPEST. CAREFULEST.

CAPACITY FROM 10 TO 50 TONS PER DAY.

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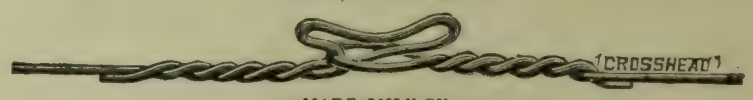

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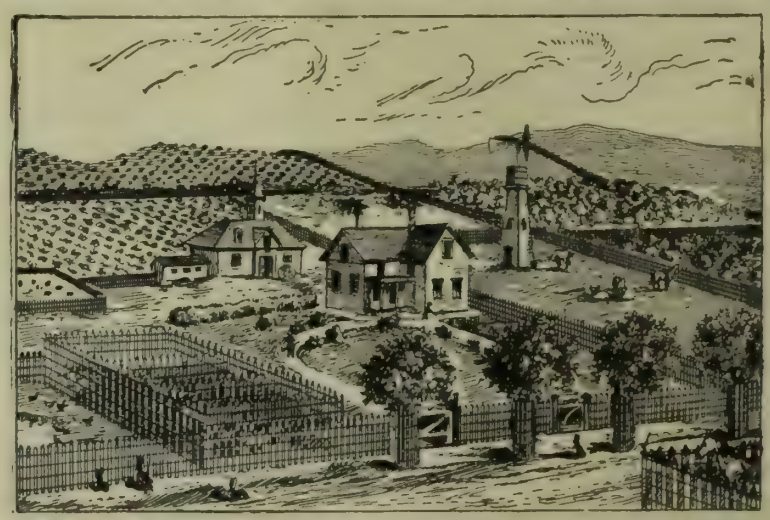
WITH THE "ORIGINAL EUREKA FENCE."



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TO THE CAPITALIST, SPECULATOR, VINEYARDIST, ORCHARDIST, STOCK AND POULTRY RAISER YOU CANNOT AFFORD TO BE WITHOUT IT.

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Hydraulic, Irrigation and Power Plants, Well Pipe, Etc., all sizes.

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Iron cut, punched and formed, for making pipe on ground where required. All kinds of Tools supplied for making Pipe. Estimates given when required. Are prepared for coating all sizes of Pipes with a composition of Coal Tar and Asphaltum.

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The members of the Kern County Land Company have a national reputation for wealth, business and financial ability. These facts set the matter of reliability at rest. The company's capital stock is $10,000,000.

They have 400,000 acres of arable, irrigable lands upon which the sun shines almost constantly; and their enormous irrigation system renders them independent of the annual rainfall.

A clear title; rotation, variety and certainty of crops; easy terms; availability to persons in moderate circumstances; ground ready for the plow—no stones nor thistles; good society; schools; churches, etc., are a few notable attractions of this region of country.

Kern is the largest county in the San Joaquin Valley. It has the finest climate for curing and drying fruits, etc.

The 400,000-acre territory of the Kern County Land Company is the pick of the county.

Its area is 5,184,000 acres.

Has the largest irrigation system in America.

The home of the peach, French prune, pear and raisin grape.

Planting and harvesting can be carried on every month in the year.

No rocks, hills or stumps on the land.

A failure of crops is unknown on irrigated lands.

Kern county fruits take the first prize at the State Fair.

Land can be made to pay for itself in less than three years.

Grows more alfalfa than any other county in California.

FOR FURTHER PARTICULARS ADDRESS

The advantages of good soil and plenty of sun, which occur in the Kern Valley, would have been of little avail but for the third and all-important one of an abundance of water from never-failing sources.

Through 300 miles of main canals, and 1,100 miles of laterals, the great Kern river furnishes enough moisture to slake the thirst of the 400,000 acres already referred to.

Drought is out of the question.

The system has been constructed in the most careful and scientific manner. Some of the canals are 125 feet wide and six feet deep.

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OF CALIFORNIA,
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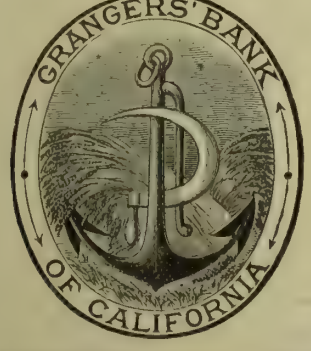
Incorporated April, 1874.



Authorized Capital	$1,000,000
Capital paid up and Reserve Fund	800,000
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OFFICERS.

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FRANK McMULLEN ..... Secretary

General Banking. Deposits received, Gold and Silver. Bills of Exchange bought and sold. Loans on wheat and country produce a specialty.

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10, 12 and 14 ft.

Cheaper than any First-Class Mill in the market.

Every One Guaranteed.

No bearings, no springs, no wheels to get out of order. The simplest mill in the world.

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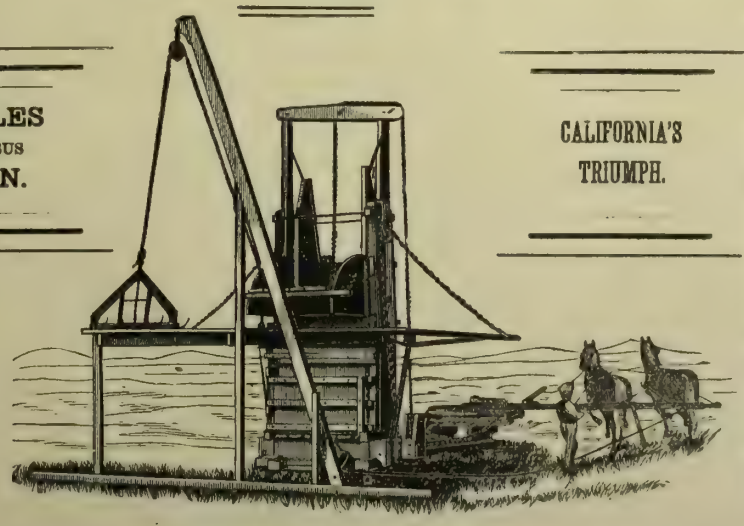
HILL'S IMPROVED LIGHTNING BALER.

Capacity, 41 Tons per Day.

AWARDED FIRST PREMIUM BY THE CALIFORNIA STATE AGRICULTURAL SOCIETY FOR 1890 AND 1891.

MULES VERSUS MEN.

CALIFORNIA'S TRIUMPH.



No tramping. No forking from the Stack. No cutting of Stacks Necessary. You can sit at a hundred-foot stack and bale it without a move. It makes the best bale in the market. You can put 10 tons in a car. The forking from the stack is all done by the horses. The baler can turn out more hay in less time and in better style than any other press.

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Keystone Cider Mills

ARE BEST!

BECAUSE THEY

Do More Work,
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Require Less Labor.

Made with Adjustable Cylinders.

Adapted to Crushing Grapes and Small Berries.

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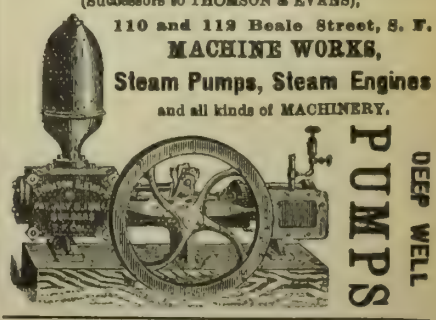
MACHINE WORKS,
Steam Pumps, Steam Engines
and all kinds of MACHINERY.



The Dairy.

On Calf-Rearing.

Baden, San Mateo Co., July 10, 1892.

To the Editor:—I read in an Eastern publication as follows:

At the Iowa station, experiments have been made to determine the feeding value of ground flaxseed for young calves. A bull and heifer calf of the Holstein and Shorthorn breeds were chosen, the two bulls being fed on whole milk, and the two heifers on milk skimmed after being set 12 hours, with as muck flaxseed as they could assimilate without scouring. These experiments lasted three months, the calves being weighed every 15 days. The results indicate:

1. That a ration of skim milk and ground flaxseed compares favorably with a new milk ration for young calves.

2. That the skim milk and flaxseed meal-fed calves were less interrupted in their growth by weaning, than were the whole-milk calves.

3. A saving value of butter fat alone of $1.11 per month, on each calf, was effected by substituting the ground flaxseed.

4. The cost of producing a pound of gain, estimating new milk at 87½ cents per hundred pounds, skim milk at 15 cents per hundred pounds, grain one cent per pound, hay $5 per ton (the latter two being fed alike to both lots), and flaxseed meal 3½ cents per pound, was 7.6 cents per pound increase with the fresh milk ration, and only five cents with the skim milk ration.

It appears from this that where there are proper facilities for converting the butter fat into butter, it is much more economical to feed calves skim milk and flaxseed than whole milk.

In connection with dairy-farming there is no doubt but that calves can be reared more economically on skim milk, with the addition of flaxseed gruel in due proportion, which will vary according to the tastes and powers of digestion in each calf.

For neither cows nor calves can we make up a fixed ration that will suit all animals alike.

Chemists may tell us of what certain foods are composed, and how much of this and that goes to make up a perfect ration, theoretically, for growing animals and milch cows; but there are problems in stock-rearing that even chemists cannot solve. When an experienced feeder wants to make the greatest growth in the shortest time, he pays little heed to any fixed rules or proportions of food; it is true that a certain quantity, perhaps the bulk of it may be mixed for all alike, but in order to obtain the best results individual tastes must be studied and, in a sense, anticipated. It is the little extra handful of one kind or other of tempting food, now to induce one to clean up the more bulky mixture, again, as an addition to what has been eaten, or, perhaps, by way of finding out how much each animal can make good use of. By some such process the observing attendant will soon find out what suits each animal best and thus be able to make the most of both time and food.

It is particularly the case in young and growing animals, and the younger they are the more care and discrimination is required in the feeding of them; hence the difficulty many have in successfully rearing calves on skim milk, the majority being barely more than kept alive, with the smallest modicum of growth imaginable.

In regard to using flaxseed with skim milk, it is now nearly half a century since I heard an experienced and successful breeder say that he found, by experience, that calves did about as well when good oilcake gruel was substituted for that made with the ground seed, saying that the latter, he thought, contained too great a proportion of oil, while the cake contained enough for the calves to do well on it.

This has been my experience, having always found that I could make a very good growth with skim milk and oilcake gruel after the first three or four weeks, due attention, however, being given to all or any other food required. If it is the season of green grass, there is nothing better than a mixture of dry bran and oilcake for preventing scours, which will also, at the same time, help on the growth; it seldom, if ever, comes amiss to growing animals of any description.

As regards cost of producing a pound of growth in a calf, in butter dairies there will not be so much difference with us, as in the example given by the Iowa experiment station, on account of the higher price of hay and grain in California, but, all the same, the principle applies here, as there, as far as the milk and gruel has to do with it.

The feeding value of oilcake is not known as it ought to be in this State. R. A.

Tuberculosis.

In regard to the prevention of the spread of tuberculosis among cattle, Prof. M'Fadyean of Scotland says:

There are one or two very well known, but generally misinterpreted, facts that have an important bearing on this question. Why are cattle, above all other domesticated species, the victims of tuberculosis? Not altogether as some suppose, because their tissues furnish a specially suitable soil for the growth and multiplication of the tubercle bacillus. Sheep are so rarely the subject of tuberculosis that it is doubtful whether any natural case has been observed in this country, and yet we know that when attempts are made to infect sheep with that disease, the experiment succeeds well enough. Again, both experiment and observation have shown that the tubercle bacillus, when once it gains entrance to the system of a horse, is capable of setting up a deadly form of the disease, and yet the proportion of tuberculosis among horses is insignificant. These facts suggest that the prevalence of tuberculosis among cattle may be less due to any inherent susceptibility of the ox tribe, than to something in man's method of keeping these animals. May it not be due in a great measure to the fact that cattle, particularly dairy cows, as they are commonly kept in this country, are found in circumstances specially favorable for the transmission of the disease from the affected to the healthy animals? No well-informed person now imagines that overcrowding can generate tuberculosis; but what everyone must see is that the more constantly animals are housed, and the smaller and worse ventilated the buildings are in which they are confined, the greater will be the risk of the disease spreading, provided there is one tuberculous individual in the stock.

A cow that is the subject of tuberculosis of the lungs expels tubercle bacilli from the air passages in the act of coughing. These bacilli, when desiccated, rise as particles of dust, and are then apt to be inhaled by other inmates of the same building. Such, in the great majority of cases, is the mode of infection in the case of cattle, and hence the two main things to be attended to with a view of prevention are: 1. To permit no animal suspected of being tuberculous to stand in the same building with other animals; and (2) to see that the buildings in which cattle, and especially dairy cows, are housed, are roomy and well ventilated. To provide sufficient air space and adequate means of ventilation in the most obvious manner diminishes the risk of one animal infecting another. No wild animal in a state of nature has ever been known to die from tuberculosis; and, with the exception of the few cases in which the disease is inherited, or transmitted to the calf by means of the milk, cattle of even the most susceptible breeds remain free from tuberculosis as long as they are not housed. In short, tuberculosis is a disease of domestication—of close housing and bad ventilation. Long before the discovery of the tubercle bacillus, and even before it was generally recognized that tuberculosis is contagious, medical men had come to the conclusion that insufficient ventilation had much to do with the prevalence of the disease among human beings, and a most convincing proof of the correctness of their view was furnished by the sudden decline in the mortality from phthisis among our soldiers when a greater air space per man and better means of ventilation were provided in the barracks. There is every reason to believe that, in like manner, a great check could be put to the spread of the disease among cattle if byres (cow stables) were made larger and better ventilated.

A Correspondent's Congratulations.

To the Editor:—I always read with deep interest the articles of John Taylor, of Tuolumne county, to the Pacific Rural Press, and regretted exceedingly to hear of his death. Then, afterwards, Miss Ada E. Taylor wrote for the Press. I said in my heart that she was a daughter of John Taylor. In the Press of June 18th my surmises are confirmed. If I might be permitted, I also would extend my sincere congratulations upon her recent marriage. May long life, prosperity and happiness attend her and hers. Now that she is married, may she not drop her pen.

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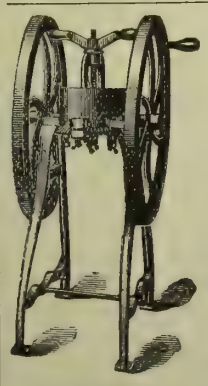

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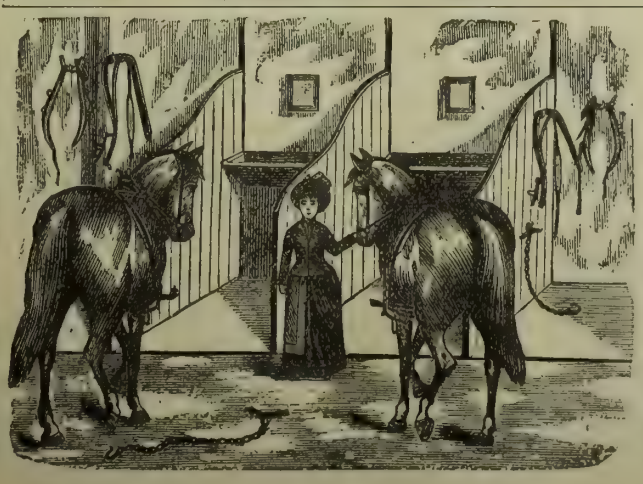

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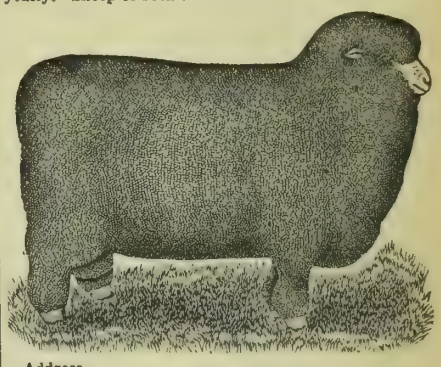

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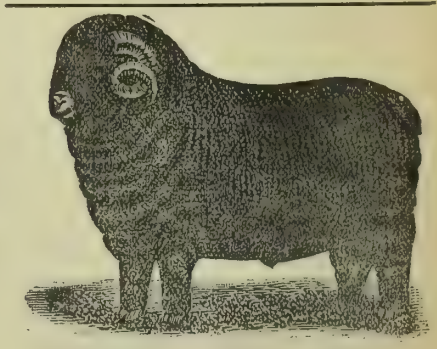

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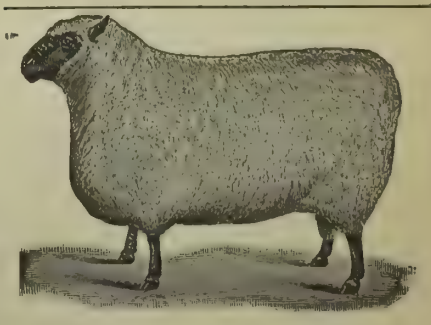

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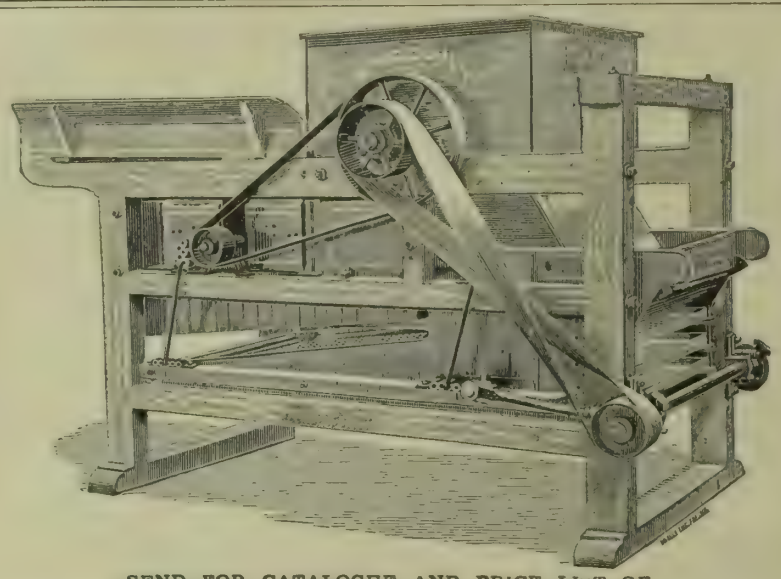

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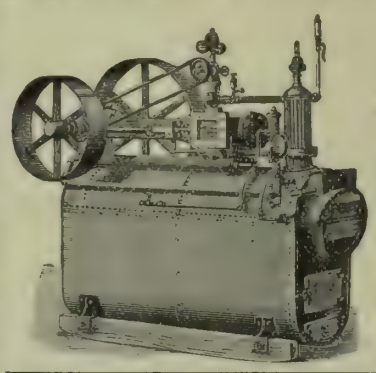

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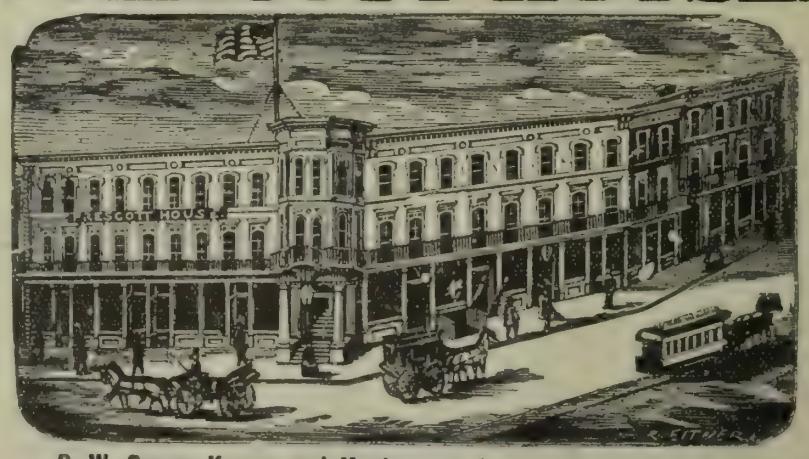

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S. F. MARKET REPORT

Market Review.

SAN FRANCISCO, July 13, 1892.

General trade has assumed its normal condition. Buyers for firms at the large distribution centers in the agricultural districts, report that their purchases are larger than at this time in last year, and, as for that, in any former year. They claim that the crops (fruit, grain and vegetables) average larger than had been estimated, and, consequently, more hands have been given employment. One buyer for a prominent Marysville firm says that he bought in June over $5000 worth more of grain bags than in the like month in 1891. In farm produce, present indications point to more general activity in grain at an early day. Dealers appear to be waiting for the Government June crop report before dealing on a large scale. Fruit is meeting with an enlarging demand and at improving prices. Last year the market opened high and declined afterward, but this year it opened low and has been slowly advancing. Vegetables continue to move off freely and at better prices than obtained in last year. Feedstuff is meeting with a good demand, which appears to be steadily enlarging. Dairy produce (cheese and butter) is shaping itself into a better position for the selling interest. In eggs, the market has been kept down for poor to good by heavy receipts of Eastern, which are forced on the market at the best obtainable figures. Eggs in cars that have been long on the way and unnecessarily exposed to heat have been placed as low as 12½ cents per dozen "as is." A large part of these arrivals are only suitable for Chinamen and bakers, who can and do use ammonia to kill any bad odor that might be present. Poultry, after making a rapid and unexpected jump on last Friday, has fallen back to prices lower than were ruling at the close of last week's review: Livestock is strengthening. Other farm produce is reported fairly firm.

In the local money market there appears to be more inquiry for funds for crop purposes. There is a steadily growing feeling of confidence and as this takes firmer hold, more disposition will be manifested to make ventures, both speculative and legitimate, which will be instrumental in bringing about more active times.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	June.	July.	Aug.	Sept.	Oct.	Nov.
Thursday	....	6s06½d	6s07 d	6s08 d	6s08 d	6s08¾d
Friday	6s07½d	6s06 d	6s06¾d	6s.7 d	6s08 d	6s08 d
Saturday	....	5s06 d	6s06¾d	6s07½d	6s0 ¾d	6s08 d
Monday	....	6s05¾d	6s0 ¾d	6s06¼d	6s 6¼d	6s06½d
Tuesday	6s03 d	6s05¾d	6s06¼d	6s 6¾d	6s0.½d	6s07½d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week.

	O. C.	P. S.	N. D.	Market for P. S.	Weather.
Thursday	34s3d	34s0d	34s0d	Steadier.	Stormy.
Friday	33s6d	....	....	Quiet.	Fine.
Saturday	33s6d	34s6d	34s6d		
Monday	33s6d	34s6d	34s6d		
Tuesday	....	....	34s6d	Neglected.	Favorable.

To-day's cablegram is as follows:

LIVERPOOL, July 13.—WHEAT—Cheaper to sell. California spot lots, 6s 10½d; off coast, 33s 3d; just shipped, 34s; nearly due, 33s 6d; cargoes off coast, rather easier; on passage, red wheat firmer held, white very dull.

New York.

The following shows the closing prices of wheat for the past week:

Day.	July	Aug	Sept.	Oct.	Nov.
Thursday	141⅜	141½	141	141⅝	....
Friday	140⅞	141⅜	140⅝	....	....
Saturday	140	139⅞	140⅛	141⅛	....
Monday	139⅞	138⅞	139⅜	140⅝	....
Tuesday	139⅞	138⅞	139	140	....

The following are to-days' telegram:

NEW YORK, July 13.—WHEAT—82⅝c for August, 82⅞c for September, 86⅛c for December and 90⅛c for May.

CHICAGO, July 13 —WHEAT—76¼c for July, 75⅛c for September and 78⅛c for December.

San Francisco.

WHEAT.

	Seller '92.	Buyer Aug.	Buyer Sept.	Buyer Oct.	Buyer Dec.
Thursday, high st	137⅞	....	....	....	141½
" lowest	136¼	....	....	....	140⅛
Friday, highest	137	....	....	....	141½
" lowest	136⅝	....	...	....	141
Saturday, highest	136⅞	....	....	....	....
" lowest	136⅝	....	....	....	....
Monday, highest	135⅝	....	....	....	140⅛
" lowest	135¼	....	....	....	140⅜
Tuesday, highest	135½	138	137½	....	140⅝
" lowest	135	137⅞	137¼	....	140½

The following are to-day's recorded sales on Call:

Morning Informal. Seller 1892, 300 tons, $1 35. Buyer December—100 tons, $1.40⅞; 100, $1.40 per ctl. Regular Session.—Buyer December—100 tons, $1.40; 200, $1.40½. Seller 1892, 100 tons, $1.35 per ctl. Afternoon.—Seller 1892, 400 tons, $1.3 ⅜; 800, $1.35½. Buyer December—400 tons, $1.40½; 400, $1.40⅝; 200, $1.40¾ per ctl.

BARLEY.

	Seller '92.	Buyer Aug.	Buyer Sept.	Buyer Oct.	Buyer Dec.
Thursday, highest	92⅞	....	94	95	97⅛
" lowest	91⅞	....	94	95	97⅛
Friday, highest	92⅞	....	....	....	....
" lowest	92¼	....	....	....	....
Saturday, highest	91⅞	....	....	....	....
" lowest	91½	....	....	....	....
Monday, highest	91	....	....	....	95⅝
" lowest	90⅞	....	....	....	94⅞
Tuesday, highest	91⅞	....	....	93⅞	95¼
" lowest	90½	....	....	93⅜	95⅛

The following are to-day's recorded sales on Call:

Informal.—Seller 1892, new—300 tons, 90⅞c. Regular Session.—Seller 1892, new—100 tons, 90⅞c; 100, 90⅞c; 100, 91⅞c per ctl. Afternoon.—Seller 1892, new—200 tons, 91⅛c; 300, 91⅛c. December—100 tons, 96c; 200, 95⅞c; 200, 95⅞c per ctl.

Markets by Telegraph.

Eastern Raisin Market.

NEW YORK, July 10.—From present indications new California raisins will come upon a pretty bare market. Should the new crop show care in curing and preparing and be offered at reasonable prices, California packers will probably experience no difficulty in promptly placing their goods among dealers. Regarding Valencia raisins, the stock here to-day is probably the smallest upon record, and only 6000 boxes are now in transit to this market, which is bare of salable fruit. The growers in Spain do not propose yet to relinquish this field to the California product. They are handicapped by a heavy duty, but intend to stubbornly contest the ground. They will be early in the market with new fruit and endeavor to get in some good work before the California product can be landed. But with two varieties in the field prices will be regulated to a proper level, gauged by the law of supply and demand. Malaga have been driven from the American market, but the more ordinary Valencia continues on deck. With a steady increase in the Pacific Coast product, however, and a cheapening in cost, as it is believed, it is only a question of time when the foreign article will entirely disappear from our markets.

Fruit Crop East.

NEW YORK, July 10.—Georgia expects to market fully 200 cars of peaches. Hunterdon county, New Jersey, estimates a yield of not over 250,000 baskets, 20 per cent below that of last year. This is favorable for late Californias. It is reported that Almeria grapes, the only important competitor of California, though of large crop, are badly mildewed, and our receipts are not likely to exceed the moderate ones of last season.

Eastern Dried Fruit Markets.

NEW YORK, July 10.—An encouraging expression for the situation of California fruits has become audible. Everything points to a good cleaning up prospect for old packings, with its improving effect upon the basis for new. In a word, there is decided evidence of readiness to meet Coast values if they do not run into restrictive figures.

Eastern Canned Fruit Markets.

NEW YORK, July 10.—Large blocks are in treaty and enough have gone through, particularly for the West, to give a firmer tone. Better spot quotations are expected to be listed before the present week is out.

Eastern Wool Markets.

NEW YORK, July 8.—The wool markets all report quiet trade. The cause is the holiday, which has kept buyers away. Sales for the week, however, foot fair, the amount being about equally divided among all grades. New wools are coming forward in increasing amounts. The supply of fleeces is quite large, and, as a rule, growers have improved on the methods of putting it up, but it falls far below the condition in which Australian wools are put on the market, at least those brought to this country.

At the London sales a strong competition among buyers is maintained. The advance is firmly held and sales are expected to close strong. It is estimated that about 12,000 bales have been bought for this country. The sales will close July 13th. There is little doing in Territories, Texas or California wools. Pulled wools are very quiet. A fair demand is reported for carpet wools.

NEW YORK, July 10.—Wool dealings were principally at New England. The general market is strong, but no higher. The mills are getting a good deal of direct stock, which gives buyers a temporary advantage over spot sellers. Foreign wool is quiet. Fine domestic is now drawing some of Australia's customers. All woolen goods are in good form. The wool sales at New York were 163,000 pounds of domestic, 162,000 pounds of foreign spot and 1,000,000 common in course of delivery. Boston sold 2,229 000 lbs. of domestic; also 35,500 foreign. The Philadelphia trade was satisfactory, with some hardening tone in prices.

Wheat Exports.

NEW YORK, July 10.—Exports of wheat, including flour as wheat, from United States seaports on both coasts for the seven days ending July 7th equal 2,060,504 bushels, a smaller total than in any preceding week for more than a year, a decline of nearly 40 per cent from the like export total in the preceding week, and of 10 per cent as compared with the like week a year ago.

Miscellaneous.

NEW YORK, July 10.—Honey—The reported light Coast crop is much regretted here. Our strained is nearly used up. Lima Beans—Added supplies have no weakening effect upon $1.80, the spot price per bushel. Hops—Last ranges are unchanged; State are not offered freely and Pacific has the run of the brewers' demand, especially at 22@23c for styles best to choice; options are inactive.

General Remarks and Statistics.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending July 12, '94, were as follows:

Flour, qr. sks	81,883	Bran, sks	6,726
Wheat, ctls	125,108	Buckwheat "	....
Barley, "	80,838	Middlings "	2,586
Rye, "	....	Chicory, bbls	102
Oats, "	8 829	Hops, "	....
Corn, "	3,050	Wool, "	1,091
*Butter, "	917	Hay, ton	2,444
do bxs	497	Straw, "	252
do bbls	13	Wine, gals	117,886
do kegs	8	Brandy, "	470
do tubs	20	Raisins, bxs	670
do ½ bxs	310	Honey, cs	301
†Cheese, ctls	6 8	Peanuts, sks	....
do bxs	....	Walnuts "	....
Eggs, doz	20,026	Almonds "	....
do " Eastern	117,150	Mustard "	....
Beans, sks	11,077	Flax "	2,730
Potatoes, sks	18,222	Popcorn "	....
Onions, "	1,914	Broom corn, bbls	....

*Overl'd, 243 ctls. † Overland. — ctls.

Cereals.

We excerpt the following from the report of the Oregon weather service, in cooperation with the U. S. Weather Bureau of the Department of Agriculture, for the week ending July 5: The total wheat yield of 1891 in western Oregon amounted to nearly 9,000,000 bushels, while this year it will not amount to more than 7,000,000 bushels, the unfavorable weather conditions lessening the yield for this year. The oats crop, while fair, will be short of last year's crop by about 20 per cent. Haying is now in progress in all sections and good yields are generally reported, though in a few localities it is not up to the average. In 1891 eastern Oregon had a total yield of nearly 6,000,000 bushels, and it is estimated that not over 3,000,000 bushels will be harvested this year. The greatest injury and loss are in Wasco, Gilliam, Sherman and Morrow counties, where last year they had 2,300,000 bushels; this year the four counties will not have a total yield of 1,000,000 bushels. A great many farmers are discouraged and many will not be able to secure seed and feed. The conditions are nearly as they were in 1889. Wheat on the higher belt of Umatilla county and on the reservation is in fine condition and it will yield about as well as it did last year. In Union county the prospects are good. In the other counties the unfavorable prospects continue. Haying is in progress and very good yields are reported.

In the local wheat market trading in samples has been slow, owing to many large buyers confining their purchases to desirable points in the country. It is also claimed that buyers who were pinched for immediate delivery wheat were accomodated by one or more warehousemen who *loaned* the wheat probably for a consideration. This loaning of wheat works an injury to the market. Farmers in warehousing their grain should put a private mark on each sack, and take receipts for the same, so that when the grain is called for they will get that which was stored. This appears to be the only way of breaking up this nefarious practice. It is said that as soon as the Government's crop report for the month of June is made public, buyers will be more disposed to enter the market, when we can reasonably look for active times. Paying higher prices on Call for November and December delivery, indicates that operators believe in better prices later on.

The barley market has shown considerable activity and at strong prices. For parcels favorably situated an advance has been paid on current quotations. The buying has been and still is being done for shipping to New York and England. Present low prices in our market and a certainty of a shortage at the East and in Europe of malters' grades are a decided inducement to make ventures. Taking this State as a whole and the crop this year will not be any larger than it was in 1891, while in Washington and Oregon it will be short.

Oats have been cleaning up, and in consequence, the market for old held to steady prices. New coast oats have come to hand but as a rule the grades are poor, which cause buyers to bid down.

Large yellow corn has held fairly steady, but small yellow and white advanced slightly under light supplies and a fair demand.

Rye has ruled steadier. Crop advices from abroad indicate another shortage, but it will not likely be as marked as it was last year.

Australian and Proper 1891 wheat, suitable for milling, are very scarce and wanted; gilt-edged will fetch quickly $1.47½@$1.50, and other grades that can be used by millers will fetch from $1.42½ upward. Millers who never look at Club wheat are now taking it owing to their not being able to get Australian and Proper.

In futures, legitimate trading on Call has been light, but there have been many cross sales so as to beat down the market for both wheat and barley.

Feedstuff.

Bran and middlings have met with more attention and at stronger prices. Ground barley is going out more freely. Other feedstuffs are essentially unchanged.

Old hay is not quoted; only new will be quoted in future. Receipts have been quite free, but all received has not only been placed, but a slight advance made in the more choice grades.

Dairy Produce.

Butter has moved off quite freely at last week's reduced quotations. The supply of gilt-edged butter is getting lighter, and, as it becomes scarcer, the more choice grades should appreciate. The southern part of the State is drawing from us. Eastern advices report increasing receipts and a weaker market with concessions in order.

Cheese is getting scarcer, which causes the better grades to hold to strong prices, with, at times, an advance obtainable for gilt-edged full cream.

The receipts of Eastern eggs have continued on a large scale, while those of Californian have fallen off. Poor to fair stock is in buyers' favor, at from 12½ to 14 cts. "as is," in carload lots. Choice packs have not changed much. Fresh-laid near by California eggs have held strong under a good demand and moderate receipts.

Live Stock.

The market is stronger for all kinds, with a slight advance for bullocks, mutton sheep and hogs. Calves are also doing better. The selling pressure appears to have relaxed.

Vegetables.

In garden stuff, we note decreasing supplies of both beans and peas. Tomatoes, cucumbers, green corn, summer squash and other seasonable varieties have come in liberally, causing a shading in prices. There has been and continues to be a good demand on shipping days for the better keepers.

Onions continue in oversupply. The outlet so far this season is restricted, which causes a low and weak market.

Notwithstanding that the receipts of potatoes have been quite free, the market cleaned up each day at good prices for well-matured and good keepers. The trouble appears to be that too many unripe potatoes are marketed, and, being poor keepers, low prices had to be accepted. They generally turn green, and are therefore unattractive to consumers. The demand for the more choice well matured is largely for shipping.

Fruit.

New York mail advices report the receipt of a sample of California new evaporated apricots, split and pitted by a patented device that leaves the fruit in much better condition than it appears when manipulated by the old method.

The English fruit crop promises to be short, and now comes a circular letter from Louis Ritz & Co., Hamburg, June 23d, which says: The outlook for the growing fruit crops in Austria and Germany is rather discouraging. There will be few if any pears. The apple crop has suffered from the start by frost and winds, and will certainly not yield more than one-half of last year's crop. The prune crop does not look as well as last year, but may improve later on; we think, however, that there will be a shortage of one-third compared with 1891. This, with almost no stock of last year's fruit will gradually force prices higher. New crop October-November shipment quoted about $3.45 per 100 lbs. c. i. f. New York.

The New York correspondence of the *United States Miller* says: "As a whole, therefore, the crops of the world promise more favorably than a month ago, in spite of the unparalleled bad weather we have had in this country, for the greater part of that period. Regarding the London financial troubles and their probable effect on the grain market, it is significant that they were caused by the decline in silver held by banks doing business with India, largely, where exports of wheat have been enormously stimulated by the same unprecedentedly low price of silver, by reason of which she is able to undersell gold standard grain-exporting countries, in the markets of Europe, and yet realize as much, or more, for her wheat at home, as before."

Chicago *Western Rural Market and Crop Review*, July 4th, says: The weather has been fairly good during the past week for the winter wheat harvest through Central and Southern Indiana, Illinois, and over the States of Missouri and Kansas. The late planting of corn for fodder is now interrupted by the wheat harvest and the advent of haying time. The superior quality of seed corn produced last year is proving to be a valuable element in aiding the crop already planted. In the northern district of Illinois a shortage of 15 per cent, and in the middle district of 16 per cent in area of corn planted is now conceded. This means so much out of the margin for export after usual demand for home consumption is supplied.

The local market for green fruit has shown continued activity with better prices ruling for desirable canning varieties. Apricots now coming in are meeting with a quick demand from canners, dryers and shippers. Peach apricots and Moorpark apricots have sold at from 2@2½c. per lb., according to size and locality grown. Royals sold lower. Tragedy and also German prunes are coming in more freely. They meet with a quick market. Bartlett and Dearborn's Seedling pears are in good request for shipping and canning. Choice and good keeping apples are meeting with a quick market at good figures. The peaches coming in are clings. The quality is good. Some poor Crawfords came to hand. They will soon be followed by the best grades. Cherries and currants are going out. The former, unless very choice, are poor sellers. We withdraw quotations. The grapes that are coming to hand are poor and hard to sell; it would be misleading to quote them. Melons are coming in more freely. The market is declining. Figs hold up well; the consumption of the green shows an increase each season. Nectarines are scarce and high; with freer receipts, prices will shade off. More will be canned and dried this year. In berries the market has held firm under a good demand at last week's prices.

There is an improving demand for canned fruits. The market is strengthening.

Dried apricots are moving off freely at from 9½@11c. per lb. The East is drawing heavily, while merchants on this coast are large buyers. For dried prunes there is a large inquiry, as there is for peaches, but we are not able to procure reliable quotations for this issue.

For raisins the market is shaping into good position for the more choice grades. Buyers will discriminate closely, and stuff only fit for hogs will have a poor show of being marketed, except at a loss. Growers should fight against each and all who are trying to kill the reputation of California raisins by marketing poor grades. It will pay them well to do so.

The market to-day cleaned up well. Canners are paying as follows: Peaches, clings, 1¾ to 2 cts. per lb. f. o. b.; freestone, 1⅛ to 1¾ cts.; Bartlett pears, 90 cts. to $1.10 per box and 1½ to 1⅔ cts. per lb. f. o. b.; apricots, 1¼ to 2 cts. f. o. b. according to size and locality. Some few, it is said, paid slightly higher for small parcels of selected to put up a fancy article for a special or particular trade

In next week's issue we will give quotations for California wines.

Miscellaneous.

On last Friday the poultry market made a big jump in hens, roosters and young chickens. Choice, well-conditioned old hens sold up to $10.50 per dozen, and in one or two instances slightly more; old roosters up to $8.50 and $9, and young up to $11. Broilers and fryers advanced also. On Saturday the market kept up, but on Monday it was easier, with quite a break on yesterday under heavy receipts of Californian and the arrival of a carload of Eastern stock.

Honey is coming in more freely, but the market holds very strong under a good demand and confirmed reports of a half crop. The crops East are also light.

Hops are stagnant owing to dealers waiting for more definite advices regarding crops. At this writing, while our advices are now favorable, yet they do not warrant the expecting of a full average, taking the world as a whole.

In wool we are not advised of any material change. Receipts are decreasing, while stocks are moving off fairly free at current quotations.

Poultry fell off badly to-day, our quotations covering the range. Another car of Eastern is about due. Young pigeons are doing better. They sell at $2 50 to $3; old sell at $2 75 to $3.50. Dealers are gathering the latter for a shoot.

From reliable advices up to July 12, the following summary tonnage movement is compiled:

	On the way 1892.	On the way 1891.	In port 1892.	In port 1891.
San Francisco	262,954	331,952	*174,188	74,451
San Diego	13,595	25,818	2,845	.....
San Pedro	4,830	5,525	...	8,981
Oregon	57,098	32,169	23,212	
Puget Sound	30,292	34,295	.....	
Totals	368,769	427,759	200,245	83,432

*Engaged for wheat, 1892, 41,418; 1891, 67,035

General Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, July 13, 1892.

BEANS AND PEAS.		Do fair	1 35 @ —
Bayo, ctl	2 00 @ 2 15	Common	1 30 @ —
Butter	2 50 @ 3 05	Sonora	1 33¾@ 1 45
Pea	2 20 @ 2 45	HOPS.	
Red	2 05 @ 2 35	1891 Choice to Ex.	20 @ —
Pink	2 00 @ 2 15	Fair to Good	18 @ —
Small White	2 00 @ 2 45	FLOUR.	
Large White	2 00 @ 2 30	Extra, City Mills	4 65 @ 4 75
Lima	2 40 @ 2 50	Do Country Mills	4 50 @ 4 75
Bld Peas, blk eye	3 00 @ 3 30	Superfine	2 75 @ 3 10
Do green	1 50 @ 2 75	NUTS—JOBBING.	
Do Niles	1 30 @ 1 40	Walnuts, Cal. lb	4 @ —
Split	4 50 @ 5 50	Do Choice	6 @ —
BUTTER.		Do paper shell	7 @ —
Cal. Poor to fair, lb	15 @ —	Almonds, sft shl.	10 @ —
Do good to choice	17 @ —	Paper shell	12 @ —
Do Gilt edged	— @ 20	Hard Shell	6 @ 7½
Do Creamery rolls	— @ 20	Brazil,	6½@ 8
Do do Gilt edge	— @ 21	Pecans small	11 @ 13
Eastern	— @ —	Do large	14½@ 16
CHEESE		Peanuts	1½@ 3
Cal. choice cream	8 @ —	Filberts	10½@ 12½
Do fair to good	7 @ —	Hickory	7 @ 8
Do gilt edged	— @ 9	Chestnuts	11½@ 16
Do skim	5 @ 6	ONIONS.	
Young America	— @ 10	Silverskin	40 @ 60
EGGS.		POTATOES.	
Cal. "as is," doz.	16½@ 18	Early Rose, ctl.	60 @ 80
Do candled	18 @ 20	Do do in boxes.	75 @ 1 15
Do choice	21 @ 22	Peerless	65 @ 85
Do fresh laid	23 @ 24	Do in boxes	70 @ 1 00
Do do selected	— @ 25	Garnet Chilies	60 @ 90
Eastern "as is"	12½@ 14	Burbank Seedlings	60 @ 80
Do candled	15 @ 18	Do do in boxes.	75 @ 1 15
Do selected	18½@ 19½	POULTRY.	
Outside prices for selected large eggs and inside prices for mixed sizes—small eggs and hard to sell.		Hens, doz	6 50 @ 7 50
FEED.		Roosters, old	6 50 @ 7 50
Bran, ton	18 00 @19 00	Do young	7 50 @ 9 00
Feedmeal	25 00 @28 00	Broilers, small	2 50 @ 3 50
Gr'd Barley	20 50 @22 50	Do large	3 50 @ 5 00
Middlings	20 00 @21 50	Fryers	4 50 @ 6 00
Oil Cake Meal	— @25 00	Ducks	4 00 @ 5 00
Manhattan Food ℔ cwt.	7 50	do, large	5 50 @ 6 00
HAY.		do, extra large	6 50 @ 7 00
Wheat, per ton	10 00 @ —	Geese, pair	1 25 @ 1 50
Do choice	— @13 50	Goslings	— @ —
Wheat and Oats	9 00 @12 00	Turkeys, Gobl'r.	18 @ 20
Wild Oats	8 00 @11 00	Turkeys, Hens	16 @ 19
Cultivated do	7 00 @10 00	Manhattan Egg Food ℔ cwt.	11 50 @ —
Barley	6 00 @ 9 50	PROVISIONS.	
Alfalfa	7 00 @ 9 50	Cal. Bacon, he'vy, lb	10½@ —
Straw, bale	40 @ 50	Medium	11½@ —
GRAIN, ETC.		Light	13 @ —
Barley, feed, ctl.	88¾@ 93¾	Lard	9½@ 12
Do Choice	95 @ —	Cal. Sm'k'd Beef	11½@ —
Do Brewing	1 00 @ —	Hams, Cal salt'd	11½@ —
Do do Choice	1 05 @ —	do Eastern	14½@ —
Do do Giltedge	1 10 @ —	SEEDS.	
Do Chevalier	1 05 @ 1 40	Alfalfa	9 @ 12½
Do do Giltedge	1 45 @ 1 50	Clover, Red	14 @ 15
Buckwheat	— @ —	White	20 @ —
Corn, White	1 27½@— —	Flaxseed	2 00 @ 2 25
Yellow, large	1 20 @— —	Hemp	3½@ 4
Do small	1 27½@— —	Mustard, yellow	3½@ 4
Oats, milling	1 50 @ —	do Brown	3 @ 3½
Feed, Choice	1 45 @ —	WOOL.	
Do good	1 37½@ —	SPRING, 1892.	
Do fair	1 32½@ —	Humb't & Men'cino	17 @ 21
Surprise	1 55 @ —	Sac'to valley	16 @ —
Black Oat	— @ —	S Joaquin valley	11 @ 16
Do Oregon	1 32½@ —	Cala'v & F'th'll.	16 @ 21
Gray	1 32½@	Oregon Eastern.	12½@ 19
Rye	1 20 @ —	do valley	18 @ 23
Wheat, milling.		So'n Coast, def.	10 @ 12
Gilt edged	1 47½@ —	Nevada (State).	15 @ 19
Do Choice	1 45 @ —	HONEY.—1892 CROP.	
Do fair to good	1 40 @ —	WhiteComb, 2-lb	8 @ 11
Shipping, cho'ce	1 38¾ @ —	do do 1-lb frame	10 @ 13
Do good	1 36½@ —	White extract'd	6½@ 7
		Amber do	5½@ 6
		Beeswax, lb	25 @ 28

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, July 13, 1892.

Limes, Mex	4 00 @ 5 00	Prunes, Tragedy	1 00 @ 1 25
Do Cal	— @ —	Do German	85 @ 1 00
Lemons, box	1 50 @ 4 00	Plums, Duane's Purple	70 @ 1 00
Do Sicily	5 00 @ 6 00	Pears, Dearbo'ns Seedling	50 @ 1 00
Oranges, Seedlings	1 25 @ 2 25	Do Bartlett	1 00 @ 1 50
Do Navels	2 50 @ 4 50	Apricots, pr box	40 @ 65
Oranges frosted and poor sell at a decline of $1@$1 50 per box on the above quotations.		do, per lb	1½ @ 1½
		Beets, sk	— @ 1 00
		Carrots, sk	50 @ —
Strawberries, per chest—		Okra, dry, lb	15 @ —
Longworth	7 00 @ 9 00	Do green	7 @ 8
Sharpless	4 50 @ 6 00	Parsnips, ctl	— @ 1 25
Raspberries, ch.	5 00 @ 7 00	Peppers, dry, lb	10 @ —
Peaches, box	— @ —	Do green, box	50 @ 1 25
Do Crawford	75 @ 1 15	Turnips, ctl	50 @ —
Do Hale's Early	75 @ 1 10	Cabbage, 100 lbs	40 @ 50
On wharf 15c. less.		Garlic, lb	2 @ 3
		Squash, Sum, bx	20 @ 35
Bl'kberries ℔ ch	4 00 @ 5 00	Tomatoes, box	40 @ 75
Figs, blk box	1 00 @ 1 50	Peas, green, sk.	50 @ 1 75
Do White do	75 @ 1 00	String Beans	2 @ 4
Apples, Bell Flower	90 @ 1 25	Cucumbers, box	50 @ 75
Do Red Astrachan	75 @ 1 50	do Pickle	60 @ 75
On wharf 15c. less.		Mushrooms	30 @ 50
		Egg Plant, box	1 00 @ 1 50
		Green Corn, sk.	— @ —
		Do sweet ℔ sack	75 @ 1 00
		Do swt Bay ℔ dz	15 @ 20

Continued on next page.

Live Stock.

BEEF.		MUTTON.	
Stall fed	5½@ —	Wethers	7½@—
Grass fed, extra	5½@ —	Ewes	7 @—
First quality	4¾@ —	Do Spring	9 @—
Second quality	4 @ —	HOGS.	
Third quality	3½@ —	Light, ℔ lb, cents	5¾@ —
Bulls and thin Cows	2 @ —	Medium	5¾@
VEAL.		Heavy	5 @ —
Range, heavy	4 @ —	Soft	4¾@ —
Do light	5 @ —	Feeders	3¾@ —
Dairy	6 @ —	Stock Hogs	3½@ —

Grain and Wool Bags.

Calcutta, spot	7 @	7¾
Wool Bags	36@	38

PATRONS OF HUSBANDRY.

The Secretary's Column.

By A. T. Dewey, Secretary State Grange of California.

COOPERATIVE LEGISLATIVE COMMITTEE.

The following resolution by J. V. Webster was adopted at the last session of the State Grange:

WHEREAS, There is great diversity of opinion among the several Orders and Associations in this State, seeking redress of grievances, as to subjects which should be made prominent issues, and as to the methods which should be used to secure actual results; therefore be it

Resolved, By California State Grange, that the Worthy Master appoint a committee of five to confer with similar committees, which are, or may be hereafter appointed by reform associations or industrial unions, to the end that a joint agreement may be reached and joint action taken in the advocacy and support of a few of the most vital issues, which, at the present time, confront the people of this State.

The committee appointed by Worthy Master Davis is as follows: J. V. Webster, C. W. Norton, S. T. Coulter, Chas. Wood and J. H. McKune. A meeting was held some time since, as before mentioned in our columns.

GRIMES.—By request of Worthy Master Davis, Past Master Coulter attended the meeting of Grimes Grange last week.

NEW HOPE GRANGE CHARTER, No. 301, has been duly signed by the Master and Secretary and forwarded to New Hope.

VISALIA GRANGE is holding meetings regularly during harvest season with fair attendance, we are informed by Secretary Ingram. Business seems fair at Tulare City, with farming prospects improving, on account of increased and reliable water supply for irrigating.

THE GRANGE AND POLITICS.

Leonard Rhone, Master of Pennsylvania State Grange, and member of the Executive Committee of the National Grange, one of the foremost leaders of the Grange in the nation, one year ago gave the following excellent statement of the Grange position in politics:

"There seems to be some misapprehension in the minds of many good people concerning the attitude of the Grange on political questions. This misapprehension grows out of the fact that the Order of Patrons of Husbandry is severe in its denunciation of partisan action, and some, reasoning from wrong premises, conclude that therefore the Grange is also nonpolitical. The mistake or misapprehension is quite natural to those who cannot distinguish between partisan or political action. Partisanship works for the success of party, and subordinates everything to the triumphs of party, while political action keeps steadily in view the advantages to be derived from good laws, honestly administered.

"When an individual becomes a Patron of Husbandry, he does not divest himself of the sacred duties of citizenship, but rather elevates his standard of patriotism, so that instead of working solely for the success of party, he now labors for the good of the entire country. Partisan action is no longer congenial, because antagonistic to the principles which underlie good government. No Patron who is true to himself, true to the principles of the Order and true to his country, can fail to take a lively interest in all political struggles, because it is on the result of these contests that the future prosperity of the farmers depends. The Patron is derelict in duty, and false to the high prerogatives of citizenship, who does not use all honorable means to secure the election of honest, competent and faithful men to positions of honor and emolument.

"It is not claimed that an individual should, on becoming a Patron, break with his old party, nor is such action desirable. But every member of the Order should seek to purify the party with which he stands identified; should do all in his power to put down bribery and corruption; should turn out to the primary elections and see that only good, true, intelligent men are sent as delegates to the nominating conventions, so that his party may place on the ticket only the names of men for public offices whose integrity and capability are above suspicion.

"If the political party with which a Patron has hitherto acted refuses to yield to these just and proper demands and persistently carries out the mandates of the political boses, nominates dishonest and incompetent men for public positions, it is the duty of the true Patron to stand loyally by the principles of the Order, and to sever his allegiance to his party. To support men for public office who are known to be incompetent or untrustworthy, because the party has placed them in nomination, is partisanship; to ignore party ties, to put love of country above love of party, to put devotion to good government above fealty to party is to exemplify the highest order of patriotism, and is carrying out in the right spirit the principles of the Grange.

"The Order is nonpartisan, and while no Grange has the right to discuss party or partisan questions, every Grange has the right to discuss all questions which in any way affect the interests of those engaged in agricultural pursuits, and to investigate both the principles and characters of those who are candidates for public office. It is only by this means that our membership can act intelligently, or arrive at a knowledge of the truth.

"It is a misapprehension to say that the Grange is nonpolitical, or to assert that the members take no part in political contests. To admit that would be to confess that we were derelicit in the discharge of the duties of citizenship and deficient in patriotism.

"It is evident that in the future the power of the Order will be invoked in the support of purer politics and better men for office, and the political party which in the coming contest fails to honor the agricultural people by placing a farmer on the State ticket, commits a serious blunder and greatly impairs its prospects of success. The Order of Patrons of Husbandry will stand by its colors, will endeavor to do for its members what other Orders do for those who belong to them. It will take no partisan action, will war against no political party, but will unalterably and determinedly oppose the election of incompetent and untrustworthy men to positions of public trust. This action it will take in the interest of good government, and for the perpetuity of our institutions. The Grange is nonpartisan, but it is not and cannot be nonpolitical, so long as it is true to the highest duties of American citizenship."

PETALUMA GRANGE.—Brother and Sister Winans of this Grange visited us Wednesday. They reported a very pleasant picnic and camp meeting of Sonoma county Granges on the ocean beach last week. Friday, Children's Day, was specially enjoyed. The other days were occupied with hunting, fishing, bathing, visiting, etc. Each evening, musical and literary exercises were held. Petaluma Grange prospects are good. Two candidates recently joined and more are coming. Regular meetings are held at 1:30 P. M. on the second and fourth Saturdays of the month, at K. of P. Hall. The Grange will soon have new badges and songbooks.

EDEN GRANGE.—Past Master Hollister has been ill from neuralgia. Sister Hollister reports interesting meetings of the Grange. The "Rustler," a manuscript paper read at each meeting, adds decided interest. Last Saturday, Judge Blackwood gave his views as to how the McKinley Bill affects the interests of farmers, etc.

PAST MASTER STEELE of Pescadero visited San Francisco this week. Pescadero Grange has rented the I. O. O. F. Hall by the year, it having recently been enlarged and improved. The Grange expects to occupy it soon, having a class of applicants to be initiated.

Agricultural Fairs.

State Fairs.

STATE.	PLACE AND SEC'Y.	DATE.
Oregon	Salem, J. T. Gregg	Sept. 12-17
California	Sacramento, Edwin F. Smith	Sept. 5-17
Washington	Spokane	Sept. 19-24
Nevada	Reno, C. H. Stoddard	
Western Washington Industrial Exposition	Tacoma,	

District Fairs.

NO.	PLACE AND SEC'Y.	DATE.
1	Oakland	Aug. 8-13
2	Stockton	
3	Chico, J. D. Sproul	Aug. 23 27
4	Petaluma, Dr. Thos. Macleay	
5	Santa Clara, George H. Bragg	Sept 26-Oct 1
6	Los Angeles	
7	Salinas City, J. J. Kelley	
8	Placerville, Thos. Fraser	Aug. 23-27
9	Rohnerville	
10	Yreka, C. S. Smith	Oct. 5-8
11	Sierraville, Fred Blinman	Oct, 3-7
12	Lakeport, H. A. McCraney	Sept. 27, Oct. 1
13	Marysville, G. R. Eckart	Aug. 28-Sept. 3
14	Santa Cruz, Oscar L. Gordon	
15	Bakersfield, J. J. Kelly	
16	San Luis Obispo, J. H. Barrett	
17	*....., I. J. Rolfe	Aug. 23-28
18	Independence, C. W. Craig	Sept. 27-30
19	Santa Barbara, H. B. Barstow	
20	Auburn, F. D. Adams	Aug. 30-Sept. 3
21	Fresno, J. M. Reuck	
22	Escondido, G. M. Dannals	Sept. 21-24
23	Concord, F. L. Loucks	
25	Napa, D. L. Hackett	Aug. 22-27
26	Ione, C. T. La Grave	Sept. 27-30
27	Redding, H. R. Hodson	
28	San Bernardino	
30	Red Bluff, H. R. Hook	Aug. 17-20
31	Hueneme, T. H. Merry	
32	Santa Ana, W. A. Beckett	Oct 3-7
33	Hollister, A. D. Shaw	Oct. 11-15
34	Susanville, C. E. Emerson	Sept. 3-7
35	Merced	
36	Vallejo	Aug. 27-30
37	Lompoc, W. I. Nichols	Sept. 20-23
	Glenn Co. Willows, W. V. Freeman	Aug. 9-13

*Stock exhibit and races will be at Glenbrook, and pavilion exhibit at Nevada City.

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Auction Sales of California Fruits

At New York.

July 6.—Two carloads: Apricots $1.10@2 30; Peaches, $1.25@2.55; Tragedy Prunes, $3.75@4.25; Abundance Plums, $2.50; Figs, $2,37. Gross sale of two cars, $3368.

July 6.—One carload: Alexander peaches, $1.35@1.80; Hale's Early peaches, $1.30@1.80; Royal apricots, $1.10@1.30.

July 7.—One carload: Peach plums, $3.80 to $4 15; Cherry plums, $1.65; Alexander Peaches, $1.65@2.30; Royal apricots, 90c@$1.50.

July 8.—Refrigerator car No. 16,366; Royal Apricots sold for $1@2 05 Alexander Peaches $1.35@2 15; Hale's Early Peaches, $1.30@2.15; Royal Native Plums, $1.87@2.87; Figs, $1.35@2.25. Gross sale, $1723.

Refrigerator car No. 16,314. Royal Apricots, $1.10@1.20; Hale's Early Peaches, $1.35@2; Royal Native Plums, $2 62; Peach Plums, $2.37@4.12; average, $4; Tragedy Prunes, $3.37@3.50; Simoni Prunes in boxes, $2.87; half crates Simoni Prunes, $5.50; Comet Pears, $4; Figs, $2.40 Gross sale, $2160.

Refrigerator car, No. 16,662. Apricots, 95c@$2; Hale's Early Peaches, $1.35@1.65; Alexander Peaches, $1.65@1.80; Royal Native Plums, $2.25@2 37; Figs, $2.15; St. Catherine Plums, $2.50. Gross sale, $1654.

Refrigerator car No. 16,322. Apricots, $1.05@1.55; Hale's Early, $1 65@1.85; Alexander Peaches, $1 60@2.20; Beurre Gifford Pears, $2 75 per crate; Bartlett Pears, $4.62@6; Peach Plums, $3.37; Royal Native and Purple Duane Plums, $2.50; Tragedy Prunes, $3.12@3.62; Black Hamburg Grapes, $2.25; Sweetwater Grapes, $1.62. Gross, 947 packages, $2752.

July 9.—Two carloads: Royal Apricots, $1@1.65; Hale's Early Peaches, $1.45@3.20; Alexander Peaches $1.05@2.05; St. John Peaches, $1.40@2 05; Bartlett Pears, half boxes, $1.65@1.75, whole boxes, $3.37@4.25; Royal Native Plums, $2.27@2.75; Figs, $2 62; Brigg's May Peaches, $1.80 per box; Bloodgood Pears, $3.12; Peach Plums, $2.87@3.25; Royal Anne Cherries, $3; Cherry Plums, $2.25.

July 9.—Two carloads: Alexander Peaches, $1.75; Royal Apricots, $1.05@1 40.

July 12.—Two carloads: Hales Early Peaches sold for $1.10@1.80; Gov. Garland Peaches arrived in bad condition, 10@70c ℔ box; Peach Plums, $2 30@3; Tragedy Prunes, $2.80; Koenig Claude Plums, $2.05; Apricots, 85c@$2.50; Moorpark Apricots, $1.

July 11.—Two carloads: Two hundred and eighty-eight boxes of Cherries sold for an average of $3.15 per box, or 35c per pound. Bartlett Pears, $3.60@3.65; Tragedy Prunes, $3.05@3.15; Peach Plums, $2.10@3 05; Alexander Peaches, $1.75@1.85; Hale's Early Peaches, $1.40@1.80; Peach Apricots, $1.25@1.35; Royal Apricots, 55c@$1.35.

July 11.—One carload: Apricots, 85c@$1.60; Peaches, $1.95@2.30; Pears, $3 50@3.87; Royal Native Plums, $2.12@2.60; Peach Plums, $3@3.50; Cherry Plums, $1.75; Tragedy Prunes, $3.50@3.62. Car sold for $2533 gross.

At Chicago.

July 6.—Three carloads: Royal Apricots, $1.20@1.45; Alexander Peaches, $1.20@1.80; Royal Native Plums, $1.70; Tragedy Prunes, $3.20; Peach Plums, $3.25@3.60; Bartlett Pears, $3.45@3 55; Beurre Gifford Pears in crates, $1 65.

July 7.—Two carloads: Plums $2.90@3 25; Tragedy Prunes, $2.65@3 15; Royal Native Plums, $2 80; Apricots, $1.35@1.70; St. John Peaches, $1.80@3; Hale's Early Peaches, $1.60@2.40; Figs, $1.40@1.45; Grapes, $2.50.

July 8.—Two carloads: Bartlett Pears, $3.55@3.60; Peach Plums, $2.85@3.50; Tragedy Prunes, $3.15; Alexander Peaches, $1.75; Hale's Early Peaches, $1@2.65; McKevitt's Early Peaches, $2.10@2.60; Royal Apricots, $1.55@1.60; Moorpark Apricots, $1.90; Simoni Plums, $5.10; Mikado Plums, $3 50; Royal Native Plums, $2.10@2.60; Pedro Plums, $2.10; Figs, $1.55.

July 9.—One carload: Bartlett Pears, $3.55@3.75; Tragedy Prunes, $3 30; Peach Plums, $3.05@3.30; some small, $2 50@2.90; Purple Duane Plums, $3; Simoni Prunes, $5.15; Black Republican Cherries, $2.60; Royal Anne Cherries, $2.35@2.50; Hale's Early Peaches, $2.05; Royal Apricots, $1.30@1.50

One carload: Alexander Peaches averaged $2. Royal Apricots, $1.40@1.60; average $1.55 per crate.

One carload: Royal Apricots, average of $1.53 per crate for the entire car.

July 9.—Three carloads: Bartlett Pears, $3.65; Purple Duane Plums, $2.80; Peach Plums, $2.75@3; Tragedy Prunes, $3 05@3.40; Alexander Peaches, $1 60@2.40; Royal Apricots, $1.45@1 90; Royal Native Plums, $2.50@3; Hale's Early Peaches, $1.70@2.10; St. John Peaches, $1 80@2.25.

July 11.—Four carloads: Bartlett Pears, $3.10@3.65; half boxes, $1.40; Peaches, $1 50@2.50; Apricots, 90c@$1.80; Plums, $2@2 35; Tragedy Prunes, $3.25@3.50; German Prunes, $2.75; Peach Plums, $2.55@3; St. John Peaches, $1.55@2.25; Hale's Early Peaches, $1.70.

July 11.—Two carloads: Peach Plums, $2.65@3; Royal Native Plums, $2.50; Early Crawford Peaches, $2@2.25; Hale's Early Peaches, $1.45@2; Alexander Peaches, small, $1 95; Royal Apricots, $1.35@1.55; Moorpark Apricots, $1.05@1 45.

July 12.—Two carloads: Bartlett Pears, $3.78; Tragedy Prunes, $3.55; Peach Plums, $2.94; P. D. Plums, $2 72; Cherries, $2.45; Hale's Early Peaches, $1.95; Peach Apricots, $1.50; Moorpark Apricots, $1.43; Royal Apricots, $1 32.

July 12.—Four carloads: Bartlett Pears, $3.60; Apricots, $1.60@1.70; Hale's Early Peaches, $1.75@1.85; Tragedy Prunes, $3@3.25; Ickworth Plums, $2.70; St. John Peaches, $1.80@2.60; Figs, $1.25@1.85; Royal Native Plums, $2.60@2.90.

At Minneapolis.

July 7.—Car No. 16,530: Peaches, $1.50@1.80; Apricots, very ripe, $.75@1.15; Plums, $2.40.

July 7.—One carload: Royal Native Plums, $2.25@3; Peach Plums, $2.25@3; Hale's Early Peaches, $1.60; Royal Apricots, $1.20@1.25.

At Boston.

July 6.—One carload: Royal Apricots averaged $1.23; Alexander Peaches, $1.96; Tragedy Prunes, $4.76 Royal Native Plums, $2.75.

July 7.—Car No. 16,336: Royal Apricots sold to average $1 59; Alexander Peaches, $2 01.

July 8—One carload: St. Catherine Plums, $3.85, Royal Native Plums, $3; California Figs, $2.50; Hale's Early Peaches, $1 85@2.35; Alexander Peaches, $1.60@2.60; Royal Apricots, $1.30@1 50.

July 9.—Car No. 16,588: Royal Apricots sold to average $1 37; Peaches, $2.19; Peach Plums, $3.98; Royal Native Plums, $3 66.

July 11.—Two carloads: Hale's Early Peaches, $2.10@2.20; Strawberry Peaches, $2; Alexander Peaches, $1.85@2.10; Royal Apricots, $1.25@1.35; California Figs, $1.45

At Omaha.

July 11.—Car No. 16,556: Peaches, $1.50@1.75; Apricots, $1.40@1.60; Plums, $2@2 50.

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SPONGE-PROPAGATING. — The United States Government is considering the advisability of establishing a sponge-propagating station in Florida waters. The Florida sheep's wool sponge is extremely durable and valuable. Sponge-fishing has been carried on to such an extent that the Government finds it necessary to take some step to prevent the destruction of the industry. This industry began about the year 1852. Some 250 vessels, employing nearly 2000 men, are now actively engaged in creating the annual revenue of nearly $1,000,000. Sponges are found in the Atlantic as far north as Jupiter inlet. The industry at St. Mark's, at the head of the Apalachicola, competes sixth in rank with Key West. Most of the output goes to New York, about one-third being exported to Germany, France and Ireland.

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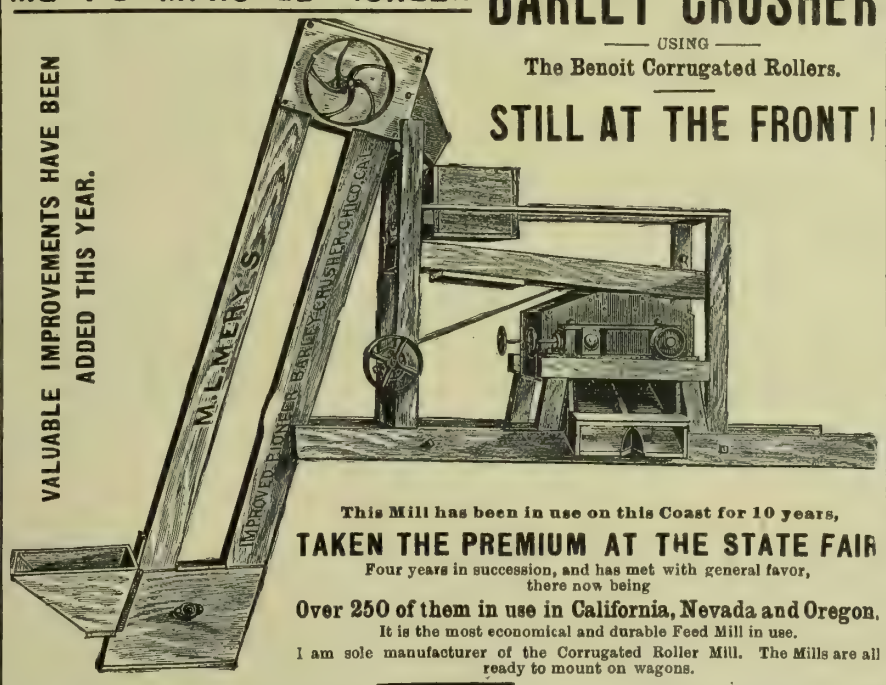

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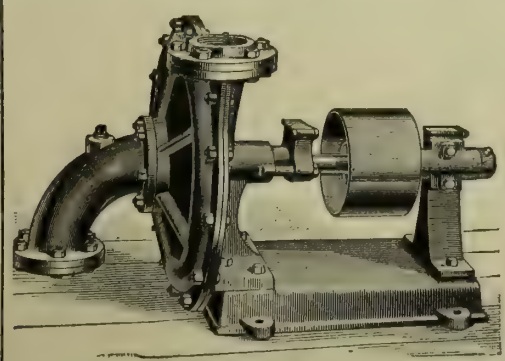
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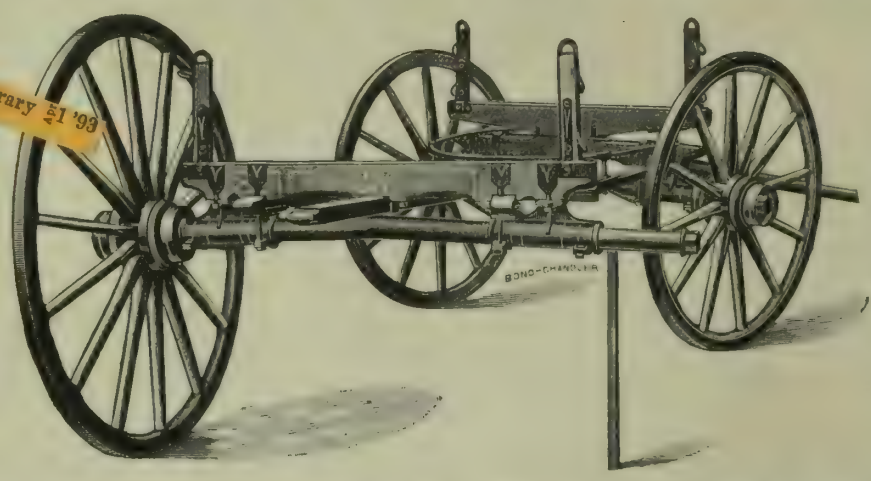

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The cut shows its application to the popular "National Tubular axles," in which it entirely supercedes the grooved wooden axle-stock, and in its stead insures an even bearing, as well as a firm, direct, and POSITIVE CONNECTION between bolster and axle.

The improvement consists of the patent reinforcing sleeve driven on to each end of the axle by hydraulic pressure. These sleeves have two flat-bearing surfaces or "stools" on top of each, to which the ends of the hind bolster (and sandboard on front gear) are firmly clipped, thus reinforcing the strength of the axle by that of the bolster. By this arrangement the weight of the load, instead of resting on the center of the axle, is transferred out to the shoulder of the wheel, and the leverage of the axle being thus reduced, the carrying strength is multiplied in like ratio. A further result of this combination is that the parts are thus united upon the TRUE PRINCIPLE OF THE TRUSS, as bolster and axle support each other reciprocally by resisting strains from any direction. An absolutely rigid connection is further insured by means of a dowel-pin at the center of each "table" or "stool," passing up into the hound and bolster.

No improvement has ever met with such unanimous approval as this, since it places the Tubular Axle upon the market in an entirely new form, and one that commends itself at first sight. It combines the well-known principles of a "stool collar" with the inherent merits of the Tubular Axle, and, in fact, brings out the real advantages of the latter for the first time since its introduction upon the wagon market.

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WILL BE HELD AT THE

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From September 5th to 17th.

California's Capabilities are Beyond Comparison. Let Not Apathy Prevent Their Being Exhibited.

The State has Appropriated Over $5000 for Premiums for Soil Productions.

REMEMBER THAT THE GREAT COLUMBIAN WORLD'S FAIR opens in May of next year. Hence, all agricultural exhibits must be collected this year.

The State Board of Agriculture stands ready to assist the producer, and by gathering your exhibits and showing them at home at the State Fair, you can take advantage of the cash awards to assist you in the good work. All exhibits shown at the State Fair will be kept free of storage until their removal. BEGIN WITH HARVEST.

MERCHANTS AND PROPERTY-OWNERS in each county are interested as much as the farmer, and should lead in the ORGANIZATION OF COUNTY-EXHIBIT COMMITTEES.

Do not overlook the chance of getting money to remunerate you, right here at home; it is to be given away at the State Fair of 1892. Come and get some of it.

Send for Premium Lists.

FREDERICK COX, President.
EDWIN F. SMITH, Secretary.

PACIFIC RURAL PRESS

Vol. XLIV. No. 4. SAN FRANCISCO, SATURDAY, JULY 23, 1892. THE DEWEY PUBLISHING CO. Office, 220 Market St.

A Glimpse at Hydraulic Mining.

The fact that the House of Representatives has this week passed a bill providing ways in which hydraulic mining may be carried on, and prohibiting it when not thus pursued, will reawaken the interest of our readers in the subject. The bill is considered morally certain to pass the Senate, and when its course is complete, we will give an outline of its provisions. Present reference to it will add to the interest inhering in the views we present on this page. Readers outside of the hydraulic regions have perhaps little idea of the way in which this kind of mining, which has in the past wrought such injury to our rivers and valley lands, is carried on. To such, the following statements will be acceptable.

The mine, of which some of the features are shown, is located in Trinity county, California. It comprises some 1100 acres of mining land. The bank of the low bar runs from 25 to 150 feet, and on the upper bar from 100 to 200 feet in depth. It was originally opened as a drift mine a number of years ago, but the claim was very rocky indeed, and in 1872 Mr. E. M. Benjamin, the present general manager and superintendent, went up there to bring in the water from the head of Canyon creek. He built a ditch and flume some nine miles long, with a capacity of 2000 miners' inches. In order to get the pipe on to the claim, it was brought across the Trinity river on a suspension bridge. The largest pipe that comes from the pressure tank down to the bridge is 22 inches in diameter, and runs into an 18-inch pipe. On the claim are six Giants, two of them nine inches in diameter, one of seven, one six, one five and one four.

At this mine they strip from six to ten acres of bedrock a year. The gold obtained is coarse, cucumber-seed gold. The bridge for bringing the pipe across the river was built under considerable difficulty. It is 350 feet span, with a 12-foot pressure. The cables are five inches in diameter, made of 1050 strands of No. 10 Bessemer steel wire. The cables weigh 11 tons each, and had to be made on the ground, because they could not be carried over the mountains. The towers for the cables are made of hewn timbers of sugar pine. The bridge is 84 feet above what is known as high-water mark, and stood the big winter when all the other bridges in the region went out. This bridge alone cost $36,000.

The bedrock ditch on the high bar is 45 feet. The cut is 1344 feet long from the dump to the head of the ditch. The engraving gives a good view of this bedrock ditch and flume.

We have reproduced from photographs made by E. H. Benjamin, son of the manager of the mine, a few characteristic features of this claim. One of the nozzles shown is the largest in the State—a 9-inch one. The smaller, 6-inch nozzle, under the pressure of 500 feet, will discharge 1375 miners' inches of water (15,500 gallons) per minute, at a velocity of 175 feet per second. This means about one ton of water each second hurled against the bank with a velocity of two miles a minute. This stream is capable of exciting a force of six tons, and doing an amount of work nearly equal to 2000 horse power. With the 9-inch nozzle, proportionately greater results are obtained.

Even the brief statements made will show that considerable capital must be invested in a fully equipped hydraulic mine to work it properly. The water supply must be abundant, and the reservoirs, ditches, flumes, etc., necessary to bring it to the mine are very expensive.

SCENES IN A TRINITY COUNTY HYDRAULIC MINE.

THE Tomales Creamery, Marin county, is turning out daily about 900 pounds of cheese and 500 pounds of butter.

He Says We Don't Know Alfalfa.

A writer in the *Field and Farm* of Denver begins an article in this way: "While the writer was in California lately he was surprised to find how little the farmers there knew about the cultivation of alfalfa. All of them whom he talked with, expressed a desire to know more about the methods of cultivation in Colorado." Then follow a few remarks on how they do it in Colorado, which advises sowing immediately after the last snow, etc. If the Californian should follow such instructions he would never get his seed in the ground.

But it is rather rich for Colorado to say Californians do not know about alfalfa. We would like to know what part of the State the writer was in. That might explain his sayings for there are regions where alfalfa does not succeed as well as other forage plants and consequently little attention is paid to it. But to charge the State of California with not knowing alfalfa is laughable. Why, youngster, California had alfalfa as a leading forage crop before Colorado was born agriculturally.

REGRETTED We regret that recent reports from Sacramento indicate that W. R. Strong & Co., the well-known fruit shippers and nurserymen, have been unable to recover from their troubles of last year, and are unable to proceed with their business this season. It is claimed that their assets, if well handled, will meet their liabilities; but as their credit is impaired, they cannot secure the advances necessary to continue business. It is a misfortune that such an old and reputable firm should be obliged to withdraw, and we hope it may only be temporary.

THE RAISIN ARRANGEMENT.—A report upon another page shows that the raisin producers at their meeting last Saturday successfully passed the critical moment in their effort at organization, and, with agreement of a capable body of packers, decided upon a minimum price. There is still very important work to be done in building up the organization so that it includes 95 per cent of both the growers and packers, as well as in other directions. The fullest cooperation of all raisin-producing regions is courted. The affair has a very promising look about it.

PACIFIC RURAL PRESS.

BY THE DEWEY PUBLISHING CO.

Office, 220 Market St.; Elevator, 12 Front St., San Francisco., Cal.

ANNUAL SUBSCRIPTION RATE THREE DOLLARS a year. While this notice appears, all subscribers paying $3 in advance will receive 15 months' (one year and 13 weeks) credit. For $2 in advance, 10 months. For $1 in advance, five months. Trial subscriptions for three months, paid in advance, each 60 cents.

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Our latest forms go to press Wednesday evening.

Registered at S. F. Post Office as second-class mail matter.

ANY subscriber sending an inquiry on any subject to the RURAL PRESS, with a postage stamp, will receive a reply, either through the columns of the paper or by personal letter. The answer will be given as promptly as practicable.

ALFRED HOLMAN.....General Manager

SATURDAY, JULY 23, 1892.

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BUSINESS ANNOUNCEMENTS.

[NEW THIS ISSUE.]

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Carbolineum Avenarius—Luecke & Co.
Horse Power—G. G. Wickson & Co.
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☞ *See Advertising Columns.*

The Week.

The activity of the week clearly lies in fruit lines. A notable advance in values, as discussed elsewhere, is enough to accelerate all other things connected with the commodities involved, and so it does. Our contents this week reflect this fact. Two notably good letters on fruit-handling speak for themselves. The first through train of California fruit for English cities is an event of much moment. The announcement of the first auction sale of fruit by growers in San Francisco is also novel and startling. The progress of the movement by which a minimum price for raisins is jointly fixed by growers and packers shows that our producers are beginning to understand themselves and the advantages thereof. Certainly there is enough in all this to occupy the scant time the producer has for reading during the busy season.

We are unquestionably advancing rapidly in the development of the horticultural resources of the State—quite as fast as we should, perhaps. After a few more doubtful issues are determined, we shall be ready for the great gain in population which is promised us after the World's Fair.

Fruit-Picking and Packing.

Our offer of prizes for letters on fruit-handling has not drawn out the response which we had hoped, because, doubtless, the pressure of the actual work has prevented its treatment upon paper. We hope this will not be also the case with the August subject, "fruit-drying," although we recognize the fact that midsummer duties render attention to other things almost impossible. This fact should indicate the better field for those who are fortunate enough to have a little leisure.

Though the letters on fruit-handling which we publish in this issue are not as numerous as we desired, we are glad to note that their character is eminently satisfactory, and the deductions from experience and observation will be interesting and suggestive to all engaged in the business. The awards are as follows:

First prize, $10, to C. E. Williams of Yuba City.
Second prize, $5, to Felix Foreman, Elmira.

The points made in the letters which we publish elsewhere in this issue are all open to discussion, either at once or whenever our readers have leisure for such discussion.

ACTIVITY IN BEANS.—Beans evidently consider themselves a kind of fruit, and are spurting in harmony with the movement in fruits. Our market review this week should be carefully read by bean growers.

Fruit Auctions in San Francisco.

Ever since the success of the auction plan of selling California fruit was demonstrated by the California Fruit Union in Chicago there has been discussion upon the practicability of employing the auction method in San Francisco. The experience of producers in disposing of their products in this market through existing channels has been unsatisfactory for so long a time that the memory of man runneth not to the contrary. Investigations in the growers' interest have frequently been made and they have never done more than to show that the discontent among growers was wider than had been supposed. Nothing in the way of remedy has been proposed except that in some way producers should undertake the distribution of their own fruit. Such a movement, though theoretically advocated, has never been reduced to practical operation, because of obvious difficulties which were clearly foreseen. The last impulse in this direction was put forth at the Marysville Convention last autumn, and it was hoped that something might be done this summer in the way of a growers' cooperative marketing enterprise. Such a work has not risen to view.

The State Horticultural Society has discussed the auction method as applicable to San Francisco and has usually concluded that existing conditions did not favor it. It has been reserved for an enterprising community of growers upon the Sacramento river to attack the proposition by a bold, resolute move. The way to resume is to resume, and the way to try the auction plan is to auction. This the Sacramento growers have resolved to do. There was a meeting of these growers held at Walnut Creek last Saturday. It was decided to hereafter sell fruits in San Francisco at auction instead of the present way, by commission houses, and all signers of the agreement are to instruct their different commission men to turn over all fruits consigned to them to P. Steinhagen, to be sold at auction to the highest bidder, eight per cent commission to be allowed on all sales, to be divided between the auctioneer and commission men as they may agree upon. This agreement was signed by a large number of growers, but it is for no specified time. The principal growers in the movement are said to be John Miller, T. W. Dean, P. Crew, G. A. Knott, William Johnston, L. D. Green, A. T. J. Reynolds, W. J. Smith, Sol Runyon, O. R. Runyon, Sperry Dye and Mrs. M. A. Jackson.

This is in brief the way in which the venture has come about. How it will result can only be told by experiment. Next Monday at five A. M. the first auction will be held on the wharves where the fruit is brought by the Sacramento river boats. The movement is, of course, awakening the full opposition of the old fruit handlers, who are aghast at the thought of the innovation of selling fruit without draying it out to their sheds along Washington and Jackson streets. Prediction is made of combination among jobbers and associations of retailers who will take the fruit at their own price on the block. Such things were freely talked also when the auction plan was mooted in Eastern cities. It is the natural conclusion of timid minds and of those who are interested in other procedure. The Sacramento growers are of a bolder sort. They know the losses and exactions to which they have been subjected in former years, and now that a sharp demand has arisen for the fruit they are now marketing, they propose to try a change. The conditions are most propitious to begin such a method. Too many people want the fruit to make it possible for them to peaceably combine and divide it. Each wants more than his share. It is just such a condition of affairs which makes an auction quick and satisfactory. We admire the enterprise of the Sacramento growers. We hope and believe they will succeed, and, by so doing, they will not benefit themselves alone, but all producers of whatever commodity comes to this market.

THE STATE BOARD OF HORTICULTURE.—This body held a regular meeting in this city on Tuesday of this week. The Secretary made a report upon the publication and quarantine work of the year, of which we shall give an outline at another time. The time for the next Fruit-Growers' Convention will be November 15th to 18th, and the place, San Jose. The board elected officers for the ensuing year. Ellwood Cooper was reelected president of the board, Fred C. Miles of Penryn treasurer, and J. L. Mosher of San Jose auditor.

FRUIT PRICES.—Our market review this week gives the current news concerning the sharp advance which has occurred in certain kinds of fruit now being marketed. Those who contracted apricots for 1½ cents a month ago find their neighbors able to command twice as much by not selling too soon. The rise now recorded in certain fruits bids fair to exert a salutary influence during the balance of the season. The bears have lost their hold and the victims arise.

The Fruit Situation.

Those fruit growers who, during the past few months, have given close attention to the market reports of the RURAL PRESS, and have followed its suggestions, have cause for self-congratulation. Of all the market reporters of this city, the RURAL was the only one which foresaw and foretold the shortage of the fruit crop east of the Rocky mountains.

Not only was this information given, but it was supplemented by the statement that the markets were cleaning up of dried fruit, and that by the time the 1892 product was ready for marketing, the surplus from the 1891 crop would be gone. That this position has been verified, events of the past few days fully establish.

The prediction of a poor fruit crop at the East was formed on unfavorable weather conditions—late frosts and cool nights during the period of early bloom in the Atlantic coast States, and excessive rains, which robbed the blossoms of the pollen or beat off both bloom and young fruit, in portions of the Ohio and Missouri valleys. To this was added a drouth in the Delaware peninsula and increasing ravages of insects and blights.

Of the small fruit at the East, blackberries are the fullest crop; currants are far from abundant, while strawberries, raspberries and gooseberries are a little over five-eights of a crop. Of the peach crop the small orchards of southern New England will give a full average yield, while in New York and in the Delaware peninsula it will be from 40 to 50 per cent of an average yield. Georgia has a very large peach crop, due to more trees coming into bearing and improved methods of cultivation. The Carolinas have a short crop. In the Missouri valley States the yield will not reach much, if any, more than one-half of an average. The pear crop East does not promise more than 75 per cent of an average. The apple crop, last year, was an enormous one and admitted of heavy exporting, both green and dried, to Great Britain. This year it does not promise to be 60 per cent of an average crop. So far as present information points, there will be a large crop in Nova Scotia and nearly as good in Maine. In southern New England it will be poor. In New York it will be very poor, as it will be in Kansas, in the Ontario region across the lakes, in Ohio, Michigan, Missouri and Arkansas; but in Minnesota and the Northwest the crop promises to be fairly good.

It is not at the East alone that the fruit crop will be very light, but mail advices, confirmed later by cables, report short crops in Great Britain and Germany. In the other European countries the crop, while promising to be larger than in the above two countries, will not be anything like an average. Probably the best evidence of this is the strong and higher markets at the East for imported prunes, raisins and other foreign dried fruits.

The promise this year of a short fruit crop at the East sent buyers into the different distribution markets for canned fruits, and in a very short time the carry-over of the 1891 pack was under control. Eastern canners, finding that this year they would not be able to pack within 50 per cent of their usual pack, withdrew from the market or else issued price lists at a high advance over those given out in July, 1891. In this, California canners have pursued the same course.

The position of the RURAL PRESS on the dried fruit situation has been as completely verified as has been its position on the crop. Our conclusions were based on the outlook favoring a very small crop of fruit at the East, and also that the enormous consumption induced by low prices during the season just closed would cause the markets to be bare of the 1891 curing by July of this year. The very high prices which ruled during the season of 1890-91 restricted the consumption and entailed heavy losses on those who had bought with the expectation of unloading before that season closed. In July, 1891, dealers from Omaha to New York, and even in the cities beyond New York, were loaded with the dried product of 1890. To add still further to their demoralization, the crop of green fruit in all sections was very large, larger than ever before produced. Largely increased quantities had to be dried, which gave an enormous supply. This, owing to the conservatism of buyers, had to be worked off at low prices. Unnecessarily low prices were made just before and after the midwinter holidays, owing to a scare on the part of both buyers and sellers. The low prices placed the product within the reach of all, which, as stated above, resulted in the surplus going into consumption and the product of the 1892 curing coming in on a bare and hungry market, with families at the East having less preserved fruits than for years, if ever before. This, of course, will conspire in promoting a demand from those who could have been content with what they had preserved. It does not require, we think, a further presentation of the favorable situation or of argument to prove that a higher range of values should exist during the next 12 months, yet if they be forced to too high figures, consumption will be restricted and the last holders meet with heavy losses.

From an Independent Standpoint.

There is little change in the situation at Homestead, Pa., since our last writing. The steel works are in possession of the owners under protection of the State troops, and preparations for resuming work are being made by a small force of non-union workmen, who are fed and lodged under guard within the enclosures. The strikers declare that they will not allow the mills to be operated by non-union men, and it is certain that they are only restrained from immediate violence by the presence of the troops. Strong as the guard is, it has not been considered safe to bring bodies of non-union men openly to the mills, and they have been smuggled in in small squads at night, or disguised as messengers or militiamen. Before work can be resumed in full force there must be more thousands in the mills than there are now hundreds, and it is doubted if they can be brought in without another fight. Thus the situation rests at Homestead. Very much nearer home, at Cœur d'Alene, Idaho, there is a condition of affairs closely similar. Some months ago the silver mines in the Cœur d'Alene district shut down. Three weeks ago they undertook to resume work, but under a new scale of wages, substituting a rate of $3 per day for the former rate of $3.50, and explaining that the low price of the silver product made the cut necessary. There was immediate protest from the workmen; then a strike; then an attempt by the mine-owners to put in new and non-union men. The strikers then began a sort of guerrilla warfare. At several of the mines non-union men were shot down and others were waylaid on public roads and murdered. In several of the mines which the strikers took forcible possession of they laid magazines of dynamite and connected them with fuses, to destroy both life and property if they should be driven out. After the usual preliminaries, U. S. troops were sent into the district last week, and after a sharp fight, in which several strikers were killed, they took charge of the mines and now control the situation. Here, as at Homestead, there is quiet, but the sort of quiet that requires the service of armed sentinels.

The failure of Senators Palmer and Voorhies to swing the Democratic party into line as a defender of the Homestead outrage and as an advocate of the extreme demands of the trade-unionists is absolute. Mr. Voorhies' fierce resolution and Mr. Palmer's fiercer speech have fallen flat. In his speech, it will be remembered, Mr. Palmer took the ground that the Homestead strikers were in the right. Manufacturing establishments were, he claimed, public institutions just as railroads were, because they worked for the public, employed the public, and because the men in their service became unfit for other service. "We talk," he said, "about civil service law as applicable to Government employment. I assert that there is a law wider and broader than that, which gives to these men who have been bred in these special pursuits—as, for instance, in the service of railroads, or of these vast manufacturing establishments—the right to demand employment, a right which can only be defeated by misconduct on their part." In other words, Mr. Palmer's position is that the ownership of the Homestead and other similar establishments by the men who have created them, is a conditional ownership limited by certain rights of the men who are employed in them. The absurdity of this position, not to mention its mischievious revolutionary character, is seen when the principle is applied to other sorts of property. Where, for example, is the farmer who would allow the ownership of his acres to be a conditional one, subject to definite "rights" therein on the part of his field hands? Of course, the proposition is monstrous. Senator Palmer knows better than this. He is simply a blatant demagogue seeking to make partisan advantage in the crisis of a Presidential campaign. That his party is wiser than he and more self-respecting, is demonstrated by its repudiation of his doctrine. Both the Democratic and Republican parties frequently make sacrifices of principle for partisan advantage, but neither have yet gone so far as to put forth revolutionary doctrines.

Organization is labor's legitimate weapon of defense. The right to combine forces and mass strength belongs as fairly to labor as to capital. It is in the province of labor to accept or decline engagements, either individually or in the mass, but it is not in its province to do more than this. At Homestead and at Cœur d'Alene the employers had the right to fix wages; the workmen the right to refuse to work for the wages offered. But there is another right in the case, that of the non-union men. They are denied the opportunity to work by seizure of the Carnegie establishment. They are maltreated, murdered, blown up with dynamite, driven out of the country, for exercising the right to work in the Cœur d'Alene mines. These are the men at whom the brutal violence of the strikers is aimed. Theirs is the interest that society is putting forth all its power to protect. In doing this, organized society is simply maintaining the principle of its organization. It is simply defending the exercise of that individual liberty of choice which is the essence of civilization. It is protecting the right of the individual to make a choice and to carry it out without molestation. Here is work to be done. Here are men willing to do it for the wages offered. Other men stand by and say they shall not; destroy property to prevent them; threaten them if they undertake it; murder them if they persist. If organized society cannot protect the men who want to work, and control those who would prevent them by violence, its organization is a sham; it has no force or vitality; it is rotten at heart and is on the point of falling to pieces. The *Oregonian* of Portland, a journal exceptionally clear in its perceptions as to the justice of things and equally strong in its ability and courage, remarks:

> The very existence of civilized society is at stake in this matter. The personal liberty of every wage-worker in the country is threatened by the organization of certain workmen into unions to forbid other workmen to accept employment. The State that permitted this would abdicate, commit political suicide. The State that is fit to live will put forth all its force, exhaust all its resources, expend all its energy, to protect its weakest citizen in the common right to earn his bread by toil without consulting a self-appointed guardian society. However tolerant a State or a community may be of trade-unionism as a voluntary system, no State can indorse the tyranny of coercive labor organization within its borders and retain its natural powers and the respect of its citizens.

Every word of which is gospel truth.

Already it is evident that many whose support was reckoned as part of the strength of the new National People's party will not abandon their old political relations. Significant evidence to this effect is furnished in an article written by Mr. Samuel Gompers, President of the American Federation of Labor in the current number of the *North American Review*. Mr. Gompers admits that within the Federation there exists a feeling of dissatisfaction with and bitter antagonism to both the Republican and Democratic parties. He charges these parties with broken promises to labor, with insincere, half-hearted support, and even antagonism of labor in the interests of the toiler and with alacrity and devotion to the interests of the corporations and the wealth-possessing classes. "There was," he declares, "no real improvement or deterioration in the condition of the working people as a result of the changes when Mr. Cleveland succeeded Mr. Arthur or when Mr. Harrison succeeded Mr. Cleveland. I venture to predict," he says, "that so far as wage-workers are concerned, it will matter little if President Harrison or some other Republican, on the one side, or any member of the Democratic party, on the other, should be elected to succeed the present incumbent, or even should the Peoples' Party succeed (though I doubt they even entertain a belief that they will succeed) in electing its candidate to the Presidency." "The members of the organizations affiliated with the labor federation will," he says, "in a large measure, as citizens, vote for the candidate of the party of their own political predilections," though he admits that the number is ever on the increase who disenthral themselves from partisan voting, and exercise their franchise to reward or chastise those parties and candidates that deserve either their friendship or resentment. Are such changes and improvements, he asks, promised by the People's Party that the workers can with any degree of assurance throw in their political fortunes with that party? To this question he answers clearly that in his judgment they will not. "To support the Peoples' Party," he declares, "under the belief that it is a *labor* party is to act under misapprehension. It is not in the nature of its make-up a labor party or even one in which the wage-workers will find their haven. Composed as the Peoples' Party is mainly of *employing* farmers without any regard to the interests of the *employed* farmers of the country districts or the mechanics and laborers of the industrial centers, there must of necessity be a divergence of purposes, methods and interests." The italics are Mr. Gomper's own and are designed to emphasize the distinction. Mr. Gompers goes on to say that he has no desire to belittle the efforts of the organizers of the Peoples' party or to withhold sympathy due them in their agitation to remedy the wrongs which they suffer from corporate power and avarice. He concedes that they are doing excellent work in directing public attention to the dangers which threaten the body politic of the Republic, but "before there can be any hope of the unification of the labor forces of the field, factory, and farm and workshop, the people who work on and in them for wages must be organized to protect *their* interests against those who pay them wages for that work."

There is going to be an interesting fight in the Republican State Convention, which meets next week at Sacramento, over the railroad question. The Stockton Convention, while going out of its way to make a platform when none was needed, had nothing to say about the railroad situation in this State. On the other hand, the Democratic Convention at Fresno took strong ground against the course of the Railroad Commission and demanded reforms in the management of the roads. It is beyond question that there is no other issue in State affairs so closely related to public interest and to public sentiment; and the position taken by the Democrats was, in view of the Republican silence, a strong "hit." At the coming convention at Sacramento the Republicans will be called upon to vote for or against a resolution condemning the policy of the Southern Pacific Railroad Company—and it remains to be seen how the vote will stand. It is possible that the politicians may be able to avoid the issue by putting forth no platform at all, but this would be a palpable dodge and as such a direct play into the hands of the Democrats.

The *Christian Union* of New York takes a novel view of the census report concerning the growth of American churches. It believes that a better net result would obtain from limitation than from growth in the number of church organizations. It claims that great harm is done to the cause of Christianity by the rivalry of the different evangelical denominations in the limited field of work. In small villages, it points out that there will be three or four weak churches fighting for supremacy, when if their membership and resources were united there would be one strong effective church. Sectarianism, it claims is destructive of Christian spirit and destructive to the best efforts of religious extension. Better, it says, far better, would it be if the evangelical churches would come to a common agreement by which the spirit of rivalry would give way to the spirit of co-operation. Here is its suggestion:

> Let the Home Missionary Societies form a syndicate. Let the National Secretaries, or the State or District Secretaries of the Home Missionary Societies meet once a month. Let them confer concerning all new territory; and agree first, never to put an evangelical church into a town already adequately supplied with evangelical churches, and second, to allow the sister denomination to put in the second church when a second church is needed.

There is good sense in this, not only good sense, but a regard for the broad interests of religion.

The Raisin Situation at the East.

A leading New York commercial exchange just to hand reports the raisin situation as follows:

California raisin growers and packers are laying their wires for the coming season, and are deeply interested in the condition of the country's markets, statistically and otherwise, at the present time. The outlook for them is certainly very favorable. The crop of 1891 has been pretty well distributed, the stock remaining on the Atlantic coast now being regarded as not any too great to cover the requirements of consumers between this and fall. The supply here is centered in the hands of one concern (there being only a single parcel of 5000 boxes outside, and this is held above present market limits), therefore when the dealers of the country require additional goods they will be forced to make their selections from the Washington street merchant who had the pluck to venture early in the season upon quantities in anticipation of the demand which usually precedes the receipt of new goods. The quantity held here in bags and boxes is fair, though in comparison with corresponding period of previous years, the total quantity is said to be considerably below. Prices are certainly low, and the principal holder is free to offer upon the basis of to-day's values; at the same time, should the demand suddenly improve, buyers will undoubtedly be compelled to meet gradually advancing ideas for anything of a desirable quality. From present indications the new fruit will come upon a comparatively bare market, but from this it must not be supposed that dealers intend rushing to the Coast with advance orders, or that they will listen to extreme values. Should the new crop show care in the curing and preparing for market, and offered at reasonable prices, California packers will probably experience no difficulty in promptly placing their goods among the dealers of the country, but should there be haste during curing season, and indifference, except to surface packing, coupled with fancy ideas as to the value of the fruit, they will find that the trade will proceed cautiously and not stock up to any extent early in the season. Regarding Valencia raisins, the stock here to-day is probably the smallest upon record, and only 6000 boxes are now in transit to this side. Another 60 days will probably find the market bare of salable fruit. The new crop is said to be progressing favorably abroad, and an average yield is counted upon. Growers in Spain do not propose as yet to relinquish this field to the California product. True they are handicapped by a heavy duty, but in the face of this duty intend to stubbornly contest the ground. They will be early in the market with their new fruit, and will endeavor to get in some good work before the California product can be landed, but with the two varieties in the field, prices will be regulated to their proper level, gauged by the law of supply and demand. Malaga, it may be said, have been driven from American markets, only a few of the very choicest variety being brought forward, but the more ordinary Valencia continue on deck. With a steady increase in the Pacific coast product, however, and cheapening of the cost, it is believed to be only a question of time when the foreign article will entirely disappear from our markets.

Weather and Crop Bulletin for Week Ending July 18th.

The following condition of the crops for the week ending Monday, July 18, 1892, are from the reports of the numerous voluntary observers throughout the State, reporting to the Director of the California Weather Service at Sacramento, including telegrams received on Monday night from Observer McKean at Red Bluff, Observer Williams at Fresno and Observer Franklin at Los Angeles. It will be seen from a perusal of the reports that this State is so large that some portions of it have crops over an average and others below and some portions an average; and in the great valleys, harvesting and thrashing are nearly or quite finished, while the coast counties are just beginning to head their grain preparatory to thrashing. It speaks well for the intelligence of our crop correspondents, for from the first report down to the present time they have all along been reporting shortage of all crops save hay and barley, and it also shows them to be conscientious men and not given to exaggeration, knowing which the general reading public can and will place the utmost confidence in these gentlemen who, voluntarily, and to benefit this great State, send promptly each week a report of the crops to the Director at Sacramento:

HUMBOLDT.—*Eureka*—All crops are doing well; the hay crop, both in quality and quantity, was never better. Grain is heading, but is of fine condition and will yield more than an average crop. Fruit of all kinds will be short.

Upper Mattole—Corn, potatoes and all summer crops are not doing well, there having been too much drying winds. Highest and lowest temperatures, 88° and 68°.

Near Arcata—The weather has been clear and warm, with high and drying wind in the afternoon. A shower of rain would do much good. Highest temperature, 88°.

LAKE.—*Upper Lake*—The cool weather has retarded the ripening of fruits and grain; heading is, however, well under way. Late-sown wheat on low lands has rusted badly, otherwise no damage is reported. The yield of wheat and barley will be above the average.

SHASTA.—*Anderson*—The temperature has been below the normal the greater part of the week. Sunday was warmer, the highest temperature being 95° and the lowest during the week 50°. Wheat is not turning out as well as was expected. There will be a carload of Bartlett pears and other fruits shipped this week. The fruit crop is better than was at first expected.

ALAMEDA.—*Pleasanton*—During the past week heavy coast fogs have been carried inland by prevailing high westerly winds. Temperature below the normal, the maximum being 86° and the minimum 40°. These conditions have both retarded and damaged the ripening grain. Rust has appeared in the wheat and oats. Chevalier barley has lodged and shelled out. Hops are very backward. Sugar beets are doing well and give promise of a large yield.

Livermore—Harvest is about over and thrashing begun. Grain is better than expected. Hay is being stored, as prices are too low. The fruit crop, except olives, is good. Grapes are doing well and promise a good yield.

COLUSA. — *Williams* — Conditions continue favorable and harvesting continues satisfactory.

NAPA.—*Napa City*—Grapes are doing well, but will be late. The apricot crop is short; early peaches lack flavor; threshing is progressing nicely; temperature growing warmer, which will be beneficial to grapes and fruit.

Yountville—Temperature and constant sunshine beneficial to all growing and maturing crops. Highest and lowest temperatures at 7 A. M. were 60° and 54°.

SONOMA.—*Healdsburg*—Threshing began this week. The yield will be average, but the quality will be poor; slight mildew on grapes; apricots ripe and other fruits growing well.

Santa Rosa—The hay crop is a heavy one and is well cured; grain will be about the average yield, while vegetables are rather below an average, but are of an excellent quality; berries yield well, and the indications are strong for a splendid crop of hops.

SANTA CLARA.—*Gilroy*—The grain crop is now being harvested and is turning out well; the fruit crop is somewhat short, but the quality is better than usual.

YOLO.—*Woodland*—The Curtis ranch presents a very busy scene at present, as seven harvesters are at work on the place and a large number of teams are hauling the wheat to the river. A shipment of 15,000 sacks was made on Wednesday.

Winters—Large shipments of melons, cantaloupes and dried fruits are made daily from this point and Yolo. Splendid wheat crop should put a lot of money in circulation among the farmers. The fruit crop is rather short, but good prices will almost even matters up and the fruit growers are likely to be a little "flush" also.

Guinda—Harvesting is progressing very satisfactory to the farmers, and fruits going to market are more delicious and larger than those marketed last week, and at present prices of grain the farmers prefer storing to selling.

Capay Valley—The wheat crop did not come up to expectations. The news that the market for apricots suitable for canning is strong, and steadily advancing, comes too late to be of any substantial benefit to the fruit growers of Capay Valley, as the apricot crop of this vicinity is already marketed. Fair prices were realized, but it is singular that the sharp rise did not occur sooner, in view of the fact that it was generally known before any of the fruit had ripened that the apricot crop would be short.

Esparto—Several hundred tons of wheat are received at the warehouse daily, and shipping to Port Costa will begin in a few days.

Dunnigan—The wheat crop in this section is an exceedingly large one; the grain is yielding 17 sacks to the acre.

BUTTE.—*Palermo*—The weather has been exceptionally fine and favorable for the growth of hay and grain, and good for fruit, though not especially conducive to early ripening. The hay crop was never better, while barley and wheat are quite up to the average or a little above:

PLACER.—*Newcastle*—Crawford peaches are now coming into the market, of which there will be a good crop generally. Highest and lowest temperatures, 92° and 51°.

YUBA.—*Wheatland*—The weather during the past week has been remarkably cool and pleasant. Harvesting is progressing finely. Hops are making rapid progress and promise an average yield.

SACRAMENTO.—*Sacramento*—The daily mean temperature during the past week has averaged from nothing to 7° below the normal for six days, and above the normal on the 18th 5°, showing a deficiency in heat of about 18°; that is, the sun heat received in the past seven days has not been as much as the usual amount for this season of the year by 18°.

The rainfall normals were nothing, and there being no precipitation during the week, it can be classed as normal, while the temperature showed an abnormal condition of or above minimum of 18°. Fruit and vegetables are getting more plenful, but appear to be considerably scarcer than last season, causing prices to be higher than usual.

Galt—The Grain output in this section is better than was at first expected. The grain growers generally have to order more sacks, as their first estimates on the crop output were much too low.

AMADOR.—*Oleta*—Threshing is in full blast, and the summer-fallowed wheat that was well put in is turning out good. The lazy, slack and slovenly farmers, who are those who sow winter wheat, will reap but a poor crop, and, according to the survival of the fittest, the lazy farmers must go to the wall and succumb to the energy and push of their more ambitious neighbors.

Sutter Creek—Hay is nearly all baled, and already new hay is plentiful in the market. The yield is about an average one, but owing to an increase in the acreage being cut to hay, it is more plentiful and commands lower prices. The barley crop is also cut and the crop reported good.

SAN JOAQUIN.—*Lodi*—Highest and lowest temperatures, 88° and 48°, with westerly winds prevailing and blowing fresh in the afternoon. The cool, damp mornings delay the harvesters. Wheat harvesting progressing with variable results as to the quality and the output. The average yield will be short of a full crop. Watermelons are coming in very slowly, and it will be the first of August before they are in the market in any quantity.

TULARE.—*Visalia*—Nearly all the crops are turning out better than was at first expected, and the yield will be above the average. Highest temperature 95°.

MONTEREY.—*San Ardo*—The weather during the week has been quite favorable to the fruit crop. Heading grain nearly all finished; threshing about commenced, and the yield of grain will be a light one. Highest and lowest temperatures, 87° and 42.°

SAN LUIS OBISPO.—*San Luis Obispo*—The weather has been warmer this week, which is good for beans and corn. A little moderately warm weather and a cool week, alternately, would give us good crops. Beans are doing very well. We are having light southerly winds and fogs the greater portion of the time. Highest temperature, 82°.

SANTA CRUZ.—*Watsonville*—The area of crops this season in Santa Cruz county and the portions of Monterey county tributary to Watsonville may be divided as follows: Fully one-half of the total acreage was sown to black oats, and the yield will be an unusually large one in the valleys and on the foothills.

In the Cornros and San Miguel canyon districts the black, loamy soil is peculiarly adapted to the growth of the black oats. The other half of the acreage in grain is divided between barley and wheat, about three of barley to two of wheat. Barley is turning out a good average yield of plump white barley.

Wheat is not yielding as good as was expected on the bottom lands, but in the canyon districts mentioned above many fields will turn out as high as 25 to 30 sacks to the acre. The fruit crops of the two counties, and also of San Benito adjoining, are far above the average in quality and yield.

TEHAMA.—*Red Bluff*—No rainfall during the week, and the temperature has generally averaged below the normal conditions for this season of the year, which has been beneficial to all crops. The sunshine has been somewhat above the average, which is favorable for harvesting crops.

LOS ANGELES.—*Los Angeles*—The unusually cold weather for the season has a tendency to retard the ripening of the fruit crop in some districts of Southern California. Apricot-drying still continues. Nine to eleven cents is being paid for dried fruit. The oranges are dropping in the Vernon district; the trees are too full. The citrus fruit growth is not up to the average in the Covina district. The threshing of grain and mustard is progressing rapidly, with prospects of but a fair crop.

OREGON CROP REPORT.

PORTLAND (Or.), July 19.—The weekly crop report of the Oregon Weather Bureau says: Fall wheat is being harvested in all sections. The yield is better than expected. Spring-sown wheat is filling out very well. Oats are being cut in a few localities. Although the wheat and oat crops are good, they are not equal to last year's, nor quite up to the average.

A New Yellow Freestone Peach—The Glen Holly.

PENRYN, PLACER CO., July 16, 1892.

TO THE EDITOR:—I have expressed to you a box containing 20 of the early "Glen Holly" peach. These are the very last of the crop on the original tree here, and are a *fair* sample of the crop in size, color, etc. They are, you will see, very like the Crawford Early, except that they are much smoother and more uniform in size and more highly colored. They ripen side by side in orchard with Early Crawford, at least *one week earlier* than the latter variety, making them, in my opinion, the very earliest of good yellow peaches.

From the original tree owned by Mr. A. C. Short, of Penryn, the fruit has all been harvested while we are just opening the Early Crawford season. These ripened *this year* about July 7th or 8th. This is a seedling tree, a fine, vigorous five-year-old one. Doubtless on older trees it will ripen earlier.

I should like your opinion on these very much. Yours very truly, H. E. BUTLER.

The peach is a large and fine yellow freestone, and has the Early Crawford's characteristics strongly marked, as Mr. Butler says. His description in all points is well borne out by the fruit which he sends. If its advance of the Crawford in time of ripening will hold good in future, it will be a most notable addition to our peach list. It runs larger than the new Vacaville Early Yellow varieties, as the specimens sent us are 8½ inches in circumference measured at right angles with the suture. So far as present data go, it is, however, not quite as early as the new Vacaville peaches. The variety should be propagated and tested in all early regions.—ED. PRESS.

LIMA BEANS AT THE EAST.—The latest received New York mail advices report the situation for California Lima beans as follows: "The market for California dried Lima beans has undergone a decided improvement during the past week. Parcels in transit by sail and steam vessels have been sold at $1.77½@$1.82½ per bushel laid down here, which is relatively higher than the best prices thus far obtained for spot parcels, and stock remaining on the coast is held for even higher rates. Western purchases have figured with some prominence in the movement, but Eastern buyers have not remained in the background, although more conservative than their Western competitors, despite unfavorable reports as to the growing crop."

First Special Train of Fruit for London.

Quite a number of fruit shippers and others interested in the enterprise were at the depot at 10 o'clock Tuesday to witness the departure of the special train of five cars loaded with choice fruits for the London market. Agent Appel of the California Fruit Transportation Company—under the management of which the shipment was made—was the busiest man in the city last evening, getting the cars in readiness for their departure.

The cars were handsomely decorated with banners reaching their entire length, reading, "C. F. T. Co. Export Special, California Fruits, Liverpool and London," with the American and British flags streaming from the roofs.

The fruit consisted of selected peaches, pears, plums, nectarines, etc., shipped by A. T. Hatch, C. W. Reed, Cook & Langley, and Gregory Brothers Company. The train will be run on passenger time over the Southern Pacific, Union Pacific, Chicago & Northwestern, and Erie Dispatch Railways, connecting at New York with the steamer Majestic of the White Star Line of United States and Royal Mail steamers, which made the speediest passage from New York to Liverpool, her record being 5 days and 18 hours.

The fruit is consigned to James Adam, Son & Co., Liverpool, and will be sold at auction.

In the car shipped by Gregory Brothers Company, the firm sent a package of Bartlett pears to Senator Leland Stanford, who is now in Paris; one to her majesty, Queen Victoria, and another to Mr. Bapst, managing editor of the *Journal des Debats*, as a luscious sample of the magnificence of California products. These three lots were grown on the famous Vina Ranch, owned by Senator Stanford.

The California Fruit Transportation Company deserves credit for opening up this service, which, if it proves a success, will be the means of giving to California fruits a new and much wider market.

The officers of the California Fruit Transportation Company are progressive men, and after being the first to demonstrate the feasibility of transporting successfully California fruits under refrigeration to domestic markets, are sparing no expense or pains to prove the adaptability of their method in successfully laying down the choicest California fruits in the extensive European markets.

The refrigerators fitted up on board the steamers are of the most approved pattern, and as the time necessary to transfer a load to the steamer will not exceed 30 minutes, the fruit will not be exposed to the outer air a sufficient length of time to change the temperature.

The train, leaving Sacramento at 10 P. M., should arrive at New York at 7 A. M. on the following Tuesday.

It is the expectation of the California Fruit Transportation Company to make this a weekly service, leaving Sacramento at 10 P. M. on Tuesday of each week and to continue until December, as it is expected the highly colored and handsome Tokay grapes will meet with quite a success in the European markets.

It is arranged to have a regular California Day in Liverpool, where buyers from all over Great Britain will come to procure California fruits, when it will be distributed over the United Kingdom.—Record Union, July 20th.

THE New York *Mail and Express* says that the exports of breadstuffs from the United States for the year just ended were enormously large, owing to the tremendous shipments of wheat and flour. The exports of flour for the year have been 14,860,459 barrels, against 11,007,638 barrels the previous year, wheat, 152,863,086 bushels against 54,201,286 bushels; corn, 73,770,002 bushels against 29,894,380 bushels; oats, 9,018,404 bushels against 916,323 bushels; rye, 11,827,044 against 332,729 bushels; barley, 2,799,729 against 966,079. The exports of wheat and flour for the year are equal to, after adding two per cent to cover all points, 223,609,953 bushels, against 109,430,466 bushels the previous year. The largest previous exports were 186,475,251 bushels in 1880–81. The exports of all kinds of grain, including flour, were equal to 321,024,832 bushels, against 141,539,977 bushels the previous year. The value of the exports of all kinds of breadstuffs was $288,925,000, against $123,156,520 the previous year.

DEDICATING THE WORLD'S FAIR BUILDINGS.—It is next to certain that the date of dedication of the World's Fair buildings will be changed from October 12th to October 21st, the latter being really the 400th anniversary of the landing of Columbus, allowance being made for the correction in the calendar made in the time of Pope Gregory. The Senate has passed a bill making the change referred to, and it is not doubted that the House of Representatives will take like action. The change was requested by the World's Fair Commissioners of New York, the Legislature of which State had provided for a Columbus celebration on October 12th. It was thought that the two celebrations, if held simultaneously, would detract from each other.

ON July 5th, a petition was presented to the Board of Supervisors of Yuba county asking for a tax levy of 50 cents on the $1000 of all taxable property in the county for defraying the expenses of a World's Fair exhibit. Those who signed the petition embraced the principal tax payers in each supervisor's district, the total property representation being $2,800,000. As no opposition to the appropriation was developed, it is thought that the Supervisors will vote unanimously in favor of the tax levy. This will create a fund of about $3500.

A FORESTRY EXHIBIT.—The Washington State building at the World's Fair will show to some extent the forest resources of the State. The foundation alone will contain 171 logs, some of them 120 feet long and 42 inches in diameter at the small end. The superstructure of the building will contain, besides heavy timber, fine finished woods showing the grain and structure of the woods, and a complete exhibit of ship-building material.

PICKING AND PACKING.

Orchard Work Which is Now Actively Going On.

SUGGESTIONS FROM LONG PRACTICE AND OBSERVATION.

DETAILS WHICH WILL BE FOUND INSTRUCTIVE.

Rural Prize Letters for July.

YUBA CITY, July 6, 1892.

TO THE EDITOR:—On the subject of picking and packing fruit, there are so many and such various ideas and methods of conducting the different branches of the business that no one can say that this or that way is always best. Methods entirely at variance with each other frequently produce results equally satisfactory or unsatisfactory. In fact, it must be admitted that fruit-shipping is always more or less of a lottery, but the prizes are drawn most frequently by him who exercises the greatest care and displays the most ability in the packing of his product. All fruits, with the exception of perhaps apples and pears, are best when allowed to ripen on the trees. As this is an impossibility in the case of fruit which is to go to a distant market, we should remember that those methods which come nearest to presenting the fruit to the consumer in its natural condition are sure to be the best, although I must admit that the careful man does not always get full pay for his care.

PICKING.—The degree of ripeness which fruit that is to be shipped should be allowed to attain, depends upon three points—first, the length of time that must elapse between the picking of the fruit and its consumption; second, upon the method of transportation, whether in ventilated or in refrigerator cars; and third, upon the variety of fruit that is to be shipped. The present standard of ripeness for shipping in refrigerator cars on peaches, apricots and plums is about the same as that for picking the same varieties for the canneries—the fruit to be ripe, but perfectly firm and hard, not quite full size, say from two to three days before it would begin to get soft on the tree. This same rule will apply to fruit that is to be shipped in an ordinary ventilated car to a near-by market, such as Portland by passenger train; but in this connection it is well to remember that many of the buyers in these near markets want this fruit to be reshipped so that it will have to hold up two or three days more before it reaches the consumer, and every car should have some lines just as firm as if they were to go to Chicago. If the fruit is to go East in a ventilated car, it should be picked some three days earlier than for refrigerator cars, leaving them only partly ripe. In the case of apricots to go in these cars, they must be left still greener—just commencing to ripen at the pit. The results of shipping apricots in anything but refrigerator cars has been so uniformly disastrous that it has been almost entirely discontinued, and no shipper will advise it. In picking Bartlett pears, it is well known that if the pear is large enough, it is ripe enough. This fruit is one like all others that must not be allowed to get too ripe, as it can go to pieces as fast as any of them if it is overripe. Grapes should be allowed to get ripe. A grape never improves in any way after it is off the vine. If it be green, it has a greater tendency to shrivel and pucker than when it is ripe. A green grape is always sour, and the longer it is off the vine, the sourer it gets.

If possible, pick your fruit early in the day, say before 10 A. M., or else in the evening, so that it can cool off during the night, to be packed the next morning. This is of most importance if the fruit is to be shipped in a ventilated car, as the refrigeration of the other car is supposed to do the same thing. I think it is better in any case, as it saves the steaming of the hot fruit for several hours before it gets under the influence of the refrigerator.

The best ladder to use is a light, strong stepladder. The old three-legged affair weighing 200 or 300 pounds has been or should be dismissed to the wood yard. You want something that can be handled quickly and easily, and is at the same time substantial.

The question of what to pick in is more difficult. It has always seemed to me that the proper thing was to pick in baskets and pack from them directly. Few shippers follow that practice, however, giving as a reason that the extra time consumed in handling the baskets, and the greater difficulty in hauling them to the packing shed, more than makes up for the damage done the fruit in emptying from buckets into picking-boxes. I believe that if great care is taken in emptying, that the best way is to pick in buckets, empty into boxes and haul to a packing house. I do not favor packing in the orchard. It is too hard to keep your material in place, add stencils and stamps are never where you want them. There are many sizes and shapes of cannery or picking boxes, and I do not know that it is of material difference what one is used, except that you should avoid getting one that is too deep—say over ten inches deep.

As to the different kinds of labor, I do not believe that any standard can be set up. I have always believed that young Americans were the best help that could be obtained, if you can get the right kind. Frequently the question of labor resolves itself into the necessity of taking whatever you can get, and you can only do the best that the time and circumstances permit. I think that the best packing that I have ever seen done was by Chinese. I have understood that some shippers have this season had most excellent work done for them by women, and I think that this will be the best help possible when a sufficient number have had the necessary training. A skillful fruit packer should be classed among the ranks of skilled labor and treated and paid accordingly.

PACKAGES.—There are now uniform sizes of packages used that have come to be standard for the different varieties of fruit. All boxes are made the same length and width and vary in depth according to the size of fruit and requirements for space. These sizes are 19¾ inches long, 11¾ inches wide and from 3 to 8 inches in depth. In speaking of a peach box the depth only is mentioned, as a 4 or 4½ inch box. But one other package besides these boxes is used—the crate. These are made to hold four 5-lb. baskets and are termed half crates, or eight 5-lb. baskets when they are termed full crates. Peaches and pears are always shipped in boxes; plums, sometimes. Grapes, apricots and usually plums are shipped in crates. A box of peaches is supposed to contain about 18 pounds net weight, and consists of two layers. The peaches should be packed, if possible, so as to break joints. I regard the four and five system of packing as the best for average-sized peaches. This is done by wrapping and placing four peaches against the end of the box, leaving a space between each one so as to divide the distances about equal; in the next row put five peaches, so as to allow the sharpest part of the peach, if it is not very nearly round, to come in the space left between the peaches in the first row. If the peaches are good size, they will very nearly or quite fill the row, leaving but little space between each of them. The next row will contain four, then five, and so on until the bottom layer is finished. In packing the bottom layer, place the peaches stem end downward, as this gives a greater surface to rest upon the bottom of the box. Commence the second or top layer exactly opposite to the first layer, that is with five peaches in the first row and four in the second. In this manner you will be able to place your fruit so that no peach rests directly over another, thus giving the greatest possible amount of surface to bear against each peach. When finishing each layer, take hold of the last row with both hands and pull it toward you, as closely as possible, so as to have the fruit tight in the box endways and sideways. Be very careful that no fruit is packed slack. It injures the sale in two ways; first, the buyer thinks there is not as much fruit in the box as there should be, and the apparent lack of a few peaches is usually magnified five or ten times in the price he offers for the box; second, the fruit that is packed slack never carries well. If it once commences to move in the box, the whole outside of it gets jammed, and, even if not spoiled, it presents a bad appearance. This is one of the most important things connected with the packing of fruit. In packing peaches it is necessary that you have boxes four to six inches in depth, varying a half inch. In addition to this you need cleats of different thicknesses, from one-eighth to one-half inch. Having got your fruit tight in the box, endwise and sidewise, you do not need to have the cover press on the top of the fruit, but can leave a quarter to a half inch space between the fruit and the cover. If your boxes are not the right size to leave this space, you can put one of the thin cleats under the cover, in this way raising the cover so as to allow the air to circulate between it and the fruit.

In packing apricots and plums in crates, it is always best to put them in layers, putting a piece of paper between each layer. Cover the bottom of the basket with the end of a strip of paper, cut the width of the basket and long enough to make four or five turns across it. On this put a layer of fruit arranged in the best manner possible to make it cover the bottom of the basket and leave the least amount of space between each one. Turn the paper back over this layer and arrange another layer in the same manner, if possible, fixing the fruit so that it will break joints and continue this until the basket is full, which will take from three to five layers, depending on the size of the fruit being packed. The top layer should be arranged in rows across the basket; average sized plums and apricots can be put five in a row each way. Much of this will depend on the size of the fruit and its shape, and no general rule can be laid down for it except this: make your basket full as possible, and have the top row as symmetrical as possible. Of course, no one will attempt to ship fruit to a distant market and go to the trouble or be so foolish as to attempt to pack any inferior fruit in the bottom of the basket or box, as the case may be. This point is so well understood, and should be so commonly practiced among our fruit growers and shippers as to need no further mention.

In packing grapes, great care should be taken to handle them as little as possible, and what handling is done should be done by taking hold of the stem of the grape rather than catching it carelessly in the hand in any way that happens. All imperfect, dried or loose berries should be clipped from the stem with a small pair of shears. Greater care should be taken to get rid of any berries that have been partly loosened from the stem and are leaking a little juice than any other one thing, as these berries will not only spoil themselves, but will ruin others that come in contact with them. The most difficult part in packing grapes lies in the ability of the packer to judge whether or not a bunch of grapes will fit the place he has for it in the basket. A good packer will have several baskets under way at once, and will thus be able to dispose of each bunch, as he picks it up and trims it, with the least possible amount of handling, and at the same time will give his basket a fully rounded, even appearance without any great amount of cutting of the bunches. It will sometimes be necessary to cut bunches into small pieces in order to fill up the corners and edges of the baskets. A five-pound basket of grapes should weigh, when it leaves the packer's hands, about five and one-half pounds, as there is a shrinkage in weight in carrying, and dealers have come to expect that they will weigh fully five pounds, if not more, when they arrive in the Eastern markets.

In packing pears, the method is similar to that of peaches, except that the box used is an eight-inch box, and is supposed to contain not less than 40 pounds net of fruit. The fruit is wrapped and laid down on its side. The layer is commenced by placing a row of pears, the number varying according to the size, with the blossom end against the end of the box, no space being left between them, but pressed in snug and tight. The next row is reversed, and the stem ends are laid between the stems of the first fruit, but crowded toward the end of the box so as to raise the stem and give the pear a little slant. The layer is then continued in the same manner as the second row, crowding the pears up a little so as to give them a good slant. Each layer is put in in the same way until the box is full. The number of layers, of course will depend entirely upon the size of the fruit, though it is seldom advisable to ship anything that takes more than five layers to fill a box, except, perhaps, very early in the season, when six-layer fruit may bring fair prices. In packing pears, some effort should be made to put the largest toward the middle of the box, and in this way give covers and bottoms an opportunity to spring. They should be sprung out from a half to three-quarters of an inch in the center.

In packing any kind of fruit, the grower should remember that it pays to cull without mercy; nothing that is imperfect in any way should ever be put in a box or crate. Look out for worms, bird picks, bruises, scab or any imperfection. Remember that the freight is just as much on poor stuff as on good, and you have to pay it whether your fruit brings ten cents a box or $5. In buying your packages, you can get a neat and attractive one almost as cheap as a rough, poorly made one, and a half cent or cent saved on each box amounts to nothing. Have good stencils and a good assortment of rubber stamps with which to mark on each box the variety it contains. If you have large lots and the fruit is to be sent East and sold at auction, divide them into separate lots of 30 to 60 boxes each, marking each lot with a letter or number in addition to your name. If your fruit does not run even in quality, put each quality in a separate lot, so that the buyer will know that the fruit he buys will be just the same all the way through. All grading should be done by the packer as he packs. If the fruit runs uneven in size, have the packer pack the size of which there is the most, laying out other sizes into boxes as he packs. This is most necessary with peaches; other fruits are not expected to run so even in size. If the grower has done proper work in thinning, there should be very little variation in the size of peaches. Never run any fruit that is to be shipped through a grader. It will get bounced around enough without your doing it unnecessarily.

LOADING CARS.—This is a matter of more importance than many think. In loading a ventilated car, it is necessary to so arrange the boxes and crates that the ventilation will be perfect from one end of the car to the other. If you can, put all the crates in one end and the boxes in the other. It is in all cases necessary to nail each box. Strips should be sawed ⅜x1 inch and about four inches shorter than the car is wide. Nail a strip on the bottom of the car so that each end of the box or crate will rest on the cleat. Put on these cleats a row of boxes or crates, if boxes, six, crates five, in the ordinary car. Divide the distance across the car equally, so that all the boxes will have a space between them. Nail a cleat on each end of this row of boxes, putting a nail in each box. Continue this until the top of the car is reached, putting each box directly over the one below it. In putting on the cleats, have the first one hit against one side of the car, the second against the opposite, thus alternating until the top of the car is reached. Each tier will be loaded in the same manner, the ends of the boxes fitting snugly against each other. Finish in the middle, firmly bracing the last tier against the opposite ones with 2x4 lumber, so that there can be no possibility of the fruit moving from its place in the car. It will have a rough experience, and too much care cannot be used to make it firm. Pear boxes should be loaded with the side down instead of the bottom.

In loading a refrigerator, there will be but little difference, except that the packages will have to be placed somewhat closer together.

In conclusion, I will add that nothing but practice and experience can make a fruit shipper. Added to this it will require patience and perseverance, sometimes a good bank account to fall back on, and always lots of hard work. The grower who first attempts to ship his own fruit will usually have the varied experience that all fruit shippers have had of alternate profit and loss. If he does good, careful, honest work, is in a locality that produces the right kind of fruit, ripening at the right season of the year, I believe his profits will be greater than his losses. If a grower is not in the right locality, he had better keep out of shipping, as it will only end disastrously. There are so many details connected with getting together a car of fruit in good shape that it is impossible to more than touch upon them.

C. E. WILLIAMS.

OBSERVATIONS OF AN EMPLOYE.

ELMIRA, SOLANO CO.

TO THE EDITOR:—Fruit picking, packing and shipping are the three most important steps in a fruit-grower's occupation, for it largely depends on these three items whether his means of livelihood are profitable or not. The large orchardists and vineyardists have generally the latest appliances to hand for picking and handling their fruit, besides a readier method of disposing of the same, for the buyers generally prefer to buy from and seek out those possessing large acreage; so I will write more for the small fruit-rais-

ers, hoping they will derive a little information from my experience.

First of all, fruit wants to be handled, generally, with dispatch, and as little as possible, for at times one day tends to spoil fruits of certain kinds for the use to which they are best adapted. As for the handling of fruit, I have seen some pretty rough handling, also some very careful handling, so I can judge pretty well the results.

When the spring work on the land is completed, is the time to prepare for the golden fruit harvest in having everything ready for it, such as ladders repaired, clean picking baskets, or whatever you use, packing house in shape, trays, etc., in fact everything in spick and span order, for fruit brooks no delay when once off the trees. I have seen men who, just when they want anything cannot find it, and have to hitch up and go to town for it. They are in nothing but a bustle the whole time.

I am an employe, so gain my information personally in my work in different orchards. As to the variety of fruits best suited for shipping, etc., each one has his own ideas, and the choice depends largely on the owner's location and upon his facilities for shipping to local or distant markets (not forgetting the canneries), each requiring their own particular kind of fruit for handling, etc.

The ordinary light stepladder is, I find, as handy as anything for picking, if picking in ordinary 20-pound baskets, made especially for the work, which are very handy. I find by screwing a hook, something like you find in cupboards for hanging clothes on, on the right side of the ladder, on which you can hang your basket by its rope handle, you make the picking much easier. If you have the basket on your arm or perhaps on the top of the ladder, you are spending half the time preventing the fruit from tipping out. Another way is by having a bag made of strong cotton or canvass with a long handle to put over the shoulders, leaving both hands free to work, and when the bag is full you take the fruit out and transfer it to a box ready for hauling to the packing house. But one is liable to be careless with this method, in dumping the fruit from the bag into the box carelessly, so I would not advise owners to allow their hired men to use the bag. The basket is, I think, the best all-round method, and it saves handling the fruit too often.

When the fruit is picked, keep it in the shade of the trees till the wagon comes around to haul it to the packing-house. Thes best wagon I have found for this purpose is the ordinary fruit truck without springs. The bed is low, resting on four small wheels with wide tires about three to four inches wide; the front wheels pass right under the bed in turning, thus is handy for both vineyard and orchard, being able to turn in very small compass. This truck is good only for orchard and vineyard *where the ground is mellow*; on the rough roads it is liable to jolt the fruit into a pulp before you arrive at your destination. There are two or three more trucks of different make for this kind of work, which I think are all about as good as one another, each having its advantages and disadvantages, so it is best to leave this to the owner's discretion as no two men have the same ideas.

The fruit has now arrived at the packing house. I think the best packing house I have seen is a plain board building about 60x30 feet, according to the ranch's requirements, with a large door at each end to allow of a fruit truck passing clear through, thus saving a lot of walking to pack the fruit, where it is wanted. One or two smaller doors on the sides are also handy. Now for plenty of ventilation, which is the great essential in this warm climate, especially for the fruit; have a continuous window clear around the building, about four to six feet deep, but instead of glass have wire mosquito bar tacked on to keep most of the flies, etc., out, outside of which have shutters fastened from the upper edge on to the building with hinges. The shutters can be kept open just by using a small stick. When closed they give the building a solid appearance, one hardly being able to tell the presence of shutters. It is also desirable to have one large window in each gable covered with wire mosquito bar. This greatly adds to the ventilation.

The inside of the packing house must be fitted up according to the owner's idea with benches, shelves, etc. A well near by is also a very essential item.

Before packing the fruit, it ought to be graded. This saves the packers a lot of work, as it is always a golden rule to ship nothing but the best, in which lies the secret of success. Some have graders, of which there are several of different makes, each having its own peculiarity, but the owner, if he cannot afford to buy this machine, can grade very quickly by hand. Of course I speak of the small ranchers. Large ranchers have their graders, and, having so much fruit to handle, necessitates having one or more. Generally what is too ripe to pack you can either dry or can, thus preventing waste.

The packing of the fruit is a simple enough operation when once learned. I think the best way for a fruit man who has just started is to visit one or two large packing houses, where he will pick up the idea much more readily than he could from mere reading. By such a visit he will find out the size of boxes, crates, etc., kind of paper and method of packing, nailing and marking preparatory to its being finally shipped.

Any spring wagon will do to haul the fruit to the depot or elsewhere, from the small wagon we see most frequently up to the large fruit wagons mounted on heavy springs to prevent shaking the packed fruit more than necessary. On some of our roads one needs a good wagon. I have seen fruit hauled in ordinary wagons without springs to the depot or elsewhere, and on taking the boxes out you could hear the peaches, etc., rattling, the owners wondering why they could not get anything for them on the fruit's arrival East; so one can see the folly of having anything but a good *spring* wagon, especially when they have a long distance to haul their fruit.

Speaking of shipping and the best ways of doing so, is a matter of much discussion at the present time. First, there are the commission men, to whom I would not ship a box of fruit if I could help it, for very often it will not be a profitable transaction; then there is the California Fruit Union, Earl & Co., Strong & Co., besides several others. The last two generally buy the fruit on the trees or vines, or pay so much per box for them packed, delivered at the depot. When they buy the fruit on the trees and vines they generally furnish their own packers, etc., the owner simply picking and hauling to the packing house. They have their agents distributed over the fruit sections, with whom the owners can arrive at favorable terms without going to their headquarters.

In the California Fruit Union you buy a share, which is, I think, $5, then you ship your fruit to their headquarters at Sacramento, where they take charge of it, shipping it East, where it is sold on the auction plan. The Union sends you particulars of the sale, together with what price your fruit brought. From this is deducted freight, cartage, commission, etc. I generally find, if you ship first-class fruit, you will generally have a good margin after all expenses are deducted. By this plan the small man stands on an equal footing with the large raiser; no matter where you are located or the number of boxes you have, you will have just the same facilities and consideration. The "C. F. U." is as near the poor man's friend as it is possible to get nowadays.

To conclude, I sincerely hope ere many years have elapsed, that there will be an entirely new system for the shipping and selling of fruit, doing away with the middlemen, who seem at present to grow rich on the poor man's products, not forgetting also a still further reduction in the freight is needed badly; then fruit-raising will, notwithstanding its hard work and disadvantages, be a profitable occupation, and not as it is at present with most I have met, a bare living and hardly that in places.

FELIX FOREMAN.

FRUIT MARKETING.

An Old Californian Gives Advice.

Among the papers recently read at a meeting of the Washington Horticultural Society was one by J. M. Hixson, now of Seattle, but whom many readers will remember as a commission merchant of this city. His reminiscences of his Calffornia experience will be found readable and his advice in many instances pertinent. We quote as follows:

No matter what variety of fruit is marketed, great care should be taken. The time devoted to picking, assorting and packing will bring in a larger return than any other devoted to the crop.

Fruit should be picked at just the right time; it should not be picked before it is fully matured, nor suffered to hang on the tree until overripe. Some kinds are better to eat when fully ripened on the tree; others should lay several days after gathering before eating. The cherry, peach, plum, nectarine, and in fact most all stone fruit, should be ripe before picking to have their full flavor. Some kinds of pears, and especially the Bartlett, are better by laying awhile after being taken from the tree. If a Bartlett pear hangs on the tree until fully ripe, it is coarse and grainy, and not so juicy and finely flavored as when it lays several days after picking. As soon as they have obtained their full size and show mothy spots, they should be picked. If they are to be shipped a distance, they should be wrapped in fruit paper, and they can be depended on to keep from 8 to 12 days, and come out in about the proper condition for eating. If intended for local market, wrapping may be dispensed with, but they should be shipped at once, and let your commission merchant put them on the market as they commence to color up. If it is an object to get some in market early, they can be picked before they are fully matured, and they will color up and be juicy, but not so finely flavored as if fully matured. One can determine when it is safe to pick by raising up the pear; if the stem and fruit bud part freely, they will color up; if the stems break, then they will rot in the place of coloring up. These characteristics of the Bartlett, which is the only pear used by the cannery, makes it a very desirable variety.

The Gravenstein apple should be treated very much as the Bartlett pears. It is not particularly attractive when first picked; after laying awhile, it becomes very attractive in appearance, and has a very fine aroma.

A heavy per cent is often lost to the grower in selling his own fruit, or intrusting the sale of the same to parties who are not familiar with the business.

I have sold the Gravenstein apple in Chicago from California at $1.50 per box—at the same time the apples coming in from Michigan in barrels would sell for $1.50 per barrel and it would take four boxes to make a barrel.

Tender fruits, such as berries, cherries, peaches, in fact all stone fruits designed for shipping, should never be picked in the heat of the day. This country where the dawn of day is long before the sun is up to heat the fruit, is well adapted for shipping tender fruits.

ASSORTING AND PACKING.

After the fruit reaches the packing house (or an improvised shed, if it is far to the packing house, as they should be in the shade soon after being picked), it should be carefully assorted. All the No. 1 packed by itself and the No. 2 by itself, and all that is overripe, bruised or defective should be utilized at home; or, if it is shipped, packed separately and marked culls. If the distance to ship is not great, I would pack apples on the side. Take the cover off the box and lay the apples in rows, with the highest colored side down, packing the box all the way through. If four layers will fill the box, they are considered good-sized apples; if they do not fill the box full, and another row makes the box too full, put a smaller apple between the last layer, what is called breaking joints, then put a cleat on the end of the box and raise it so the cover can be nailed down, fitting snugly on the apples to prevent their moving in handling; then turn the box over and mark, so when they are opened the side which is down when packed will be the top. If it requires five layers to fill the box, proceed in the same way. Some varieties will take six tiers or layers to fill the box, and they will still rank as No. 1 of their kind. If the apples are to be shipped a distance, or designed to be kept long in the box, pack them on the end, putting the stem end down, so when the box is opened the stem end will be up. The variety and number of tiers should always be marked on the box, so the seller will not have to open the box to find that out. The least opening that has to be done the better. No one who has not had experience in selling fruit has any idea of the effect of having to open the box. If a buyer sees the box has been opened, his first thought is, some one has looked at that box and rejected it, and of course he does not want what some one else has rejected. Buyers soon learn the brand and the manner of packing. If the fruit is assorted and packed honestly, it is sought after, and soon there is little occasion to open the boxes. The same care in handling, assorting and packing should be taken in all kinds of fruit.

The party who wants a first-class article and is willing to pay for that, does not want a second class mixed in, and if he finds there is second grade mixed in, he will not seek that brand the second time. If he buys at all, he will want a reduction amounting to as much as the value of the second grade. Then why not leave it out and save the expense of boxing and freight? I do not want to be understood that all the fruit that is not No. 1 should be thrown away. There is often good sale for second grade. What I strenuously contend for is to have it so assorted that the party wanting the No. 1 does not have to take and pay for such as he does not want, and the party who can use what would be classed as second grade, on account of color or some other cause, would not have to pay an extra price because there were a few high colored or fancy ones on top of the box. What I contend for is assorting your fruit into three classes, packing with care Nos. 1 and 2, and if the third grade cannot be utilized at home, and it will pay to ship, so mark it that the seller knows what it is and can price it accordingly. A good way to mark is by letters, A, B and C; No. 1, mark A. If you have something extra good, better than the run of what you class No. 1, mark it @ (a, with a circle); mark No. 2, B, and culls C, otherwise your No. 2 might be as good as some other No. 1's, and by its being marked No. 2 would prevent its bringing as much as it should, as compared with the others' pack-mark No. 1.

In an experience of 30 years in the commission business, I have seen the effect of careful assorting and packing, as compared with careless and positive slovenliness on the other hand. I cannot refrain from dwelling on this subject at the risk of being called cranky. If one can make from 10 to 15 per cent, with but a small loss of time, is it not worth the effort? I can recall many instances in which shippers from adjoining orchards of the same class of fruit have made that much. I will name an instance: I drove into a cherry orchard near San Jose, California, and found the owner in quite a state of excitement, having just received his account of sales of cherries from our house in San Francisco. His first greeting was "Mr. Hixon, I would like to know why it is you can get 10 cents per box more for my neighbor's cherries than you do for mine?" I replied, I suppose it must be because they are better. "They are no better; you can see them hanging side by side. Mine are as good as his or any others. And you sell his for $1.10 and mine for $1. The price is good and $1 would be satisfactory, but I do not like to have my fruit sold for less than my neighbor." I said I did not know how to manage, unless I knocked down and pocketed the ten cents extra I got on his neighbor's, as $1 was all the buyers would pay for his, and they would not do that as long as any of his neighbor's were to be had at $1.10.

After a little more badinage on my part, I concluded it was time to pacify the old gentleman. I said, Mr. Conney, I think I can explain the matter satisfactorily. Mr. Hill packs two rows and then fills the box full, and when the boxes are opened they are smooth and show full from one end to the other. You pack but one layer, and when your boxes are opened, a corner has broken down and the stems show, and they are not attractive. "Well, well, I guess that does have something to do with it." After that Mr. Conney packed two rows, and got just as much for his cherries as Mr. Hill; and when I drove into Mr. Conney's orchard four years afterward, I had a pleasant greeting. A minute or two of time did the work, and a half-dozen or so extra cherries filled up the corners of the box, and it not only saved ten cents, but the old man's temper. And it is a very bad thing to get angry with your commission merchants about something that is your own fault.

I will give an instance of the effect of neat packing of dried fruit: While I was in Chicago, among the large list of consignments of dried fruit from California, I received a lot of unbleached, sun-dried apricots from Dr. Chandler, of Sutter county. They were packed with such care and taste, I said to my brother: "You must take a box with you to show how they are packed. If you take a sample in the usual way they will not bring but little more than the ruling price for that class of fruit," which was about 12 cents per pound. The broker took the box and showed the apricots in the box. It was not long until he returned, having sold the entire invoice to one of the largest handlers of dried fruit in the city (Sprague, Warner & Co.) for 16 cents per pound.

I could count hundreds of instances all along the line, not only to small dealers and consumers, but in large quantities to large dealers in the great fruit centers, the effect of careful packing. There is a perceptible difference between fruit packed with moderate care and that with which special pains has been taken. When a shipper is a don't-care kind of a fellow, who thinks it does not make much difference how fruit is packed, as he can't see why fruit packed is any better than when it is not packed, and argues if one man don't buy it another will, you will find he is apt to be in about the same mood when he meets his commission merchant as the old man who shipped the cherries was when I first drove into his place.

Raisin Growers and Packers Agree Upon a Minimum.

The committee and convention meetings which occupied the last three days of last week at Fresno were characterized by many discussions, but there was agreement at the close, provided the conditions can be complied with.

The following named delegates from county raisin conventions were present: W. S. Potter and B. A. Bateman, Hanford; E. L. Hooper of Merced; L. S. Harmon of Rosedale, Kern county; H. Murdock of College City; W. N. Byron of Lemoore; E. Sanborn of Tulare; J. M. Hawley of San Diego; C. Wistanley of San Bernardino; W. N. Oothout, John S. Dore, D. T. Fowler, W. M. Vanwormer and Col. Trevelyan, of Fresno.

The packers represented at the meeting were: The Curtis Fruit Packing Company of Fresno; F. P. Devine of Riverside; Fresno Raisin Packing Company of Fresno; Griffin & Skelly of San Francisco and Fresno; Eugene Gould of Woodland and Malaga; Home Packing Company of Fresno; S. B. Holeton; Selma Packing Company; Kingsburg Packing Company; J. Lemoore of Lemoore; H. W. Bryan of Lemoore; Noble Bros. of Fresno; Producers' Raisin Company of Fresno; Traver Raisin Company; Williams, Brown & Co.; A. D. Barling, Fresno; Easton Packing Company; Logan Vineyard Company.

The morning session was occupied in the discussion of a basis of action.

Alexander Gordon reported that the raisin growers had now 23,000 acres, owned by 900 persons, represented in the organization and pledged to support those packers who would agree with the growers not to sell raisins at a price which would fail to give the grower a price per pound for his raisins in the sweat box to be agreed upon by the joint committee.

In order to test the power of the packers present to enter into such agreement, they were asked to see how many carloads of raisins they packed during the past season. The list was made up, from which it appeared that they packed 1359 carloads, each carload containing from 10 to 15 tons of raisins, making the total a very large proportion of the whole shipment of the State.

The committee of raisin growers then withdrew for the purpose of allowing the packers, who had just arrived, to agree among themselves as to what proposition should be made to the growers. After the growers withdrew, they reassembled and resolved that it was the sense of the growers' committee that all raisin growers should receive five cents per pound for good raisins in the sweat box.

When both parties came together again, the packers proposed that the packers and the growers should organize, and if 95 per cent of the packers and 95 per cent of the growers could agree upon the proposition, the packers should bind themselves not to sell any raisins for a price that would give less than 4½ cents per pound in the sweat box to the growers, and that 95 per cent of the growers should agree to do business with those packers.

The committee from the growers' convention refused to accept 4½ cents per pound, and expressed their willingness to enter into a five-cent per pound combination.

The following morning the discussion was renewed, and an agreement was reached upon the terms named by the packers. This action was reported to the convention on Saturday and was agreed to, thus constituting 4½ cents per pound the minimum price for good raisins in the sweat box.

Alexander Gordon said that the first thing to be done by the growers was to get the stipulated 95 per cent, so that the packers could then unite in their part of the contract.

John S. Dore said that, in order to accomplish the work, it was necessary for the body to act together and be unanimous. If any one did not understand the matter, he should acquaint himself, and then let his presence be felt. Sympathy and earnestness is absolutely necessary to success.

D. T. Fowler read a telegram from a convention of raisin growers at Riverside, in which the growers there expressed themselves willing to enter the compact, if one is formed.

Discussion was had upon the organization of a State association.

C. C. Agnew of Solano county, was added to the committee. The committee was given the authority to add to their number any members they might consider necessary or proper. Alexander Gordon was elected treasurer of the State Association.

Steps were taken looking to the establishing and maintaining a grade and standard of raisins, to be the same all over the State.

THE DAIRY.

A Progressive Establishment Near Marysville.

Frank S. Chapin writes the following interesting letter for the *Record-Union:*

Six miles northeast of Marysville I passed the 3400-acre ranch of T. B. Hall of Sacramento, where he has started to breed up and work up a model dairy of Holstein cows. In several respects it is the best calculated for making good butter in hot weather, without ice, of any establishment that I ever saw, and its leading features are worthy of extended notice and careful study by dairymen. The creamery and poultry business, as auxiliaries to fruit-growing, in the valleys just coming under irrigation, are such essential factors in the settlement of the State and development of its industries, that a successful dairy, where high-grade butter is made from alfalfa, in the very hottest weather, without ice, ought to be driven about the State on wheels as an object lesson, made a dairy-school, or used in some way to lift those thousands out of the depths of silurianism who claim that dairying doesn't pay and are able to prove by their own experience that nothing pays.

R. H. Wells, the superintendent of the ranch, attends to the creamery personally, and informs me that they have had too little butter to supply their trade, and that their lowest price in Sacramento has been 27 cents, when best goods in San Francisco were quoted at 19. To-day the temperature of his butter-room was 70°, that of his churn-room 76°, and that outside 92°. Last week, when the temperature rose to about 115° at some time every day, the temperature in his butter-room rose only 6° during the day. The secrets of this success are

CONSTRUCTION OF THE BUILDING.

It is of three rooms, one for the engine, one for the churn and a third for the butter. The engine-room is made to allow a free draft of air so as to prevent heating other rooms. It is about 16 feet square. The walls of the butter-room consist of a wall packed with eight inches of sawdust and two inner walls of lumber, so carefully lined with paper as to make two air-tight chambers. The ceiling is about the same, and he has an elaborate system of ventilation from the ceiling overhead. The churn-room is much the same, except the sawdust wall. All the floors are of cement or artificial stone, and the doors are made like those of an ice-chest or refrigerator. Mr. Wells deserves great credit for having kept up a grade of butter to bring eight cents a pound above the market without having used any ice until to-day; but his success is not due to the building alone.

BRINE SALTING.

He watches the churn very carefully, and when the granules of butter are about as large as pin heads, he stops the churn, draws off the buttermilk and rinses the butter in the coldest water he can get, until the clear rinsing water shows that the buttermilk has been removed. For his brine he uses about one pound of salt for every five pounds of butter in the churn, and water enough to float the butter easily. This salt makes the brine six degrees colder than the water was, and when the butter is in such fine grains, it will take up as much salt as is needed, from brine of this strength, in the course of an hour. As his well water is 64°, the brine stands at 58°, and he takes the butter from the churn in very fine condition for working. Of this there is very little to be done, as the buttermilk has all been removed and the salt perfectly distributed already.

It is well understood among butter makers that the less working the better, so long as buttermilk and moisture are removed and salt perfectly distributed.

Mr. Wells uses a Sharpless cream separator, driven by a direct jet of steam, which troubled him some about heating the cream, until an expert came from San Francisco to show him how it should be operated. Now he has no trouble on that account, and has invented a cooler over which the cream runs from the separator to the cream tank. It looks like a tin box, about six inches deep, with the top made out of a washboard. This is set so that the cream will run very slowly over the corrugated surface, while the pump drives a stream of water from the well through the box of the cooler.

He never allows his cream cans or vat to be closed, and in this way any bitter taste that might arise from alfalfa or similar feed is dispelled while the cream is ripening.

THE BARN.

The barn is arranged so that the stalls can easily be kept clean and dry, and the silo and feed cutter are conveniently arranged. It is proposed to dairy with thoroughbred Holsteins only. They will produce butter principally in the fall and winter, and will feed a ration of hay, ensilage and grain. Besides feed produced on the ranch, considerable bran will be used, and I suggested a slight addition of oil-cake to the ration.

There is a device for watering the cows with a trough long enough for four to drink at once. This trough is hung by wires to a little car, at each end, running on a track overhead. The trough is supplied with water by a hose, and as soon as four cows have done drinking, it is run along to the next. When all have drank, the trough is run up by pulleys out of the way of the cows' horns and returned to its place at the head of the row. I think a similar device for distributing the feed, and especially for the ensilage, would be desirable.

The creamery could be made cooler by porches on the east, south and west sides. A perforated pipe along the ridge of the roof, from which the pump could throw a spray sufficient to keep the roof damp, would help very much in keeping the room cool.

A SUGGESTION FOR TEMPERING AND AERATING CREAM.

All creamery men know the difficulty in tempering cream for the churn, or for the ripening process, by the use of ice, steam or hot water. I have seen many devices for cooling and airing milk by pumping air through the can. Suppose we attach the cylinder of a force pump to the wall of the butter-room and arrange to drive it from the engine. With the suction of this pump connect a T, from which one pipe shall draw air through a coil sunk in the well or in an underground vault, and the other from a coil heated in some way from the boiler. Connect the discharge of the pump with a hose terminating in a perforated tin tube.

When you want to cool the cream, open the pipe leading to the cold-air chamber, throw the perforated tube into the cream can, or tank, and in a twinkle you will have your cream thoroughly, stirred, aired and reduced in temperature. The same rule would apply for heating the cream when you opened the cock leading to the hot-air pipe.

In this device it would be an important feature that the opening where the air entered either pipe should be where no odor tainted the atmosphere. In many places it might be well to have the pipes extend some distance above the roof. On the other hand, any objectionable flavor in the cream would be, in large measure, dispelled by driving pure air through in this way.

These tubes could be introduced in the churn to temper the cream there, when necessary. If the operator was in a great hurry, he could give it a pretty high temperature until the butter was on the point of breaking, then reduce the temperature to a point where the grain would come firm and hard.

By the addition of $500 in machinery and the help of a common laborer, Mr. Wells could handle the milk to make 500 pounds of butter daily.

If he was able to work on that scale and hold the present prices for his output, he could credit $40 per day for the extra advantages of buildings and machinery and his skill as an expert. That would pay the interest at ten per cent on $146,000 over average dairying. Mr. Hall is experimenting on a safe plan, with the prospect of finally reaching that point where the increase of his herd will permit.

Yet the silurians of the plains and the Micawbers of the mountains are commenting every day on the old "fool and his money soon parted" proverb. They are of the kind that won't go across the road to visit an experimental station, nor take an agricultural paper, because they don't believe in book farming. They know that farming doesn't pay, because all other classes are combined against them. At the same time, they never think of using their brains in in a way to make farming pay, and willful ignorance is their greatest oppressor. In the meantime, they nurse their own misery, discourage others, retard the development of the country, and are stumbling blocks in the way of general prosperity.

Mr. Hall's money and Mr. Wells' skill have demonstrated that dairying can be carried on profitably in the very hottest climate of the interior valleys of California. The application of these principles to cooperative dairying is what is needed where families of limited means are settling small tracts of irrigated lands with a view of making fruit ranches. It almost always takes more than was expected to bring fruit trees into bearing and support the family in the meantime.

If instead of planting the whole 20 acres to fruit, 12 are thus planted, and the other eight put in alfalfa, so as to keep a dozen cows, a dozen brood sows and 200 hens, the farmer who gives it careful attention can expect to make a good living and pay interest on first cost of land while his trees are coming into bearing. To do this, the community must run a creamery embodying essentially the features described in Mr. Hall's establishment—building thoroughly protected against changes of temperature, pure air and water, well-planned ration, cream separator and modern appliances, expert creamery man. These will be followed by cash trade, home comforts and prosperous communities.

THE VINEYARD.

An Early Experience with Long Cuttings.

Wm. Pfeffer, the well-known Santa Clara grape grower, writes for the *Wine and Spirit Review* as follows:

The reason why I have attempted in former articles, under this heading, to criticise some systems of training the vine in California, is because they have not given satisfactory results, and to be more convincing I will give my own experience and observations from the beginning to the present time, and to show how easy it is to adopt faulty ways and the extreme difficulty in correcting them is the object of this writing.

We cannot train the vine in a correct way if not planted in accordance with this view, and, consequently, vines planted or trained in an incorrect way cannot yield the highest perfect product, wine. Disregarding the fact that it is easy to grow grapes here for anybody, no matter where born and under what conditions brought up, I hold that the planting, pruning and training the vine are so closely allied one to another that no one of these factors can be disregarded with impunity.

My first lesson in growing grapes here was in digging out grape vines, and this happened to be in the year 1869, in the month of February, at Mrs. Yount's place, Yountville, Napa county, shortly after my arrival from the southern part of Illinois. When Mrs. Yount learned that I had a leaning toward grape culture, she set me to work digging out rooted grape-vine cuttings, with the intention to plant with these an addition to her already established vineyard of considerable size. These rooted cuttings had the butt ends about 24 inches below the surface and were planted many years before I had to dig them out. It was a hard job to get all of the original cutting to the surface without leaving the principal roots still in the soil torn away from where they started at the cutting. In Illinois I had bought and planted rooted vine cuttings which measured no more than six to eight inches and had generally been made from cuttings of two buds or joints, and I consequently uttered, in the presence of the good lady, my disapproval of the unique way of producing rooted grape-vine plants, but the lady reproached me by saying, "William, I don't want you to speak in a disrespectful way about Mr. Yount or the way he planted these cuttings." I need not say that I never forgot it, but bad precept caused me considerable annoyance and loss.

In the following fall I started a two-acre vineyard in Santa Clara county, on the very same farm I have worked ever since, but the cuttings I planted then, after the principle "the deeper the better," failed to grow, and I had to plant and replant for five years, till these two acres showed no more empty gaps to be still replanted. When they arrived at bearing I found that nearly every other vine was of a different kind, and there was no other way of bringing order into this chaos than by grafting them all into a certain kind. While digging around these vines preparatory to grafting, I learned that many vines resembled in shape a carrot, while some lost the butt end by rot. After this I did not bury the butt end of a cutting two feet below the surface—in fact, eight or ten inches deep gave me the best results.

As to the distance apart of planting vines I, of course, was led to adopt what others did, and to-day I pride my-

self in having the greatest variety in that line. Six feet apart in the row, and the rows from six to seven feet apart, had been my first planting, but when the great grape-vine-planting boom broke out in the early eighties, and the driving of one horse was considered a poor man's business, I increased the distance to six by nine and seven by eight, and, as already recorded, to a small extent, twenty by twenty, *a la chaintre.*

Track and Farm.

Hambletonian's Monument.

Several years ago a project was started to raise by subscription sufficient money to erect an appropriate monument over the grave of Rysdyk's Hambletonian. From time to time the project was revived by one journal and then another, advocated for a short time and then dropped, until early this season, when a few large subscriptions placed the matter on a substantial basis, and an order was given to the Syenite Granite Company, of which William Russell Allen is president, to place at Chester, Orange county, N. Y., over the grave of this famous horse, a substantial red granite monument, similar to the one erected by this firm at Stony Ford for Green Mountain Maid.

As almost every breeder and owner of trotting and road horses have descendants of Hambletonian, which are his most valuable and best; while every American takes more or less pride in the fact that the American trotter so far surpasses in speed the best of all other countries, and nearly all holding the fastest records have, since the days of Dexter, been close descendants of his famous sire, the public generally are, to a greater or less extent, actually interested in the erection of this monument, to the cost of which a large number have directly contributed, and will take pride in whatever is really in good taste pertaining to it.

There has been considerable discussion as to the most appropriate spot for erecting such an elaborate memorial. John H. Wallace proposed and presented the strongest arguments he possibly could in favor of Central Park as the best location, but the recent hostility, so plainly manifested by such a prominent element, against providing for our typical American production a driveway corresponding to the "Equestrian Road," which for several years has been kept in the best possible condition for the exclusive use of the very limited class of bang-tailed horses, ridden chiefly with English saddles and mounted by awkward riders, a hostility which, aided by the misrepresentations of the *Sun* and other prominent daily papers, finally brought about the repeal of the driveway bill by the same legislature which had passed it, has demonstrated very clearly that Central Park would have been the least appropriate place which could possibly have been selected.

The most fitting site, the most suitable material, and a firm interested in furnishing the best possible work, are those finally decided upon, and the only reasonable criticism to be made is relative to a small portion of the inscription, which is to be:

HAMBLETONIAN,
THE GREAT PROGENITOR OF TROTTERS,
Born May 5, 1849.
Died March 27, 1876.
His Nobility was the Act of Inherent Power.

On the plain marble slab originally erected over his grave was the inscription, "Hambletonian, foaled May 5, 1849; died March 27, 1876," and we have not yet ascertained who is responsible for having changed the correct word "foaled" to the more sentimental "born." Occasionally a catalogue has been received, usually the production of some novice not overburdened with brains, where the colts and fillies, though not, as a rule, sufficiently well bred to bring, under the hammer, ordinary draught horse price, are all entered as having been "born," though none of them have yet mentioned anything about midwives, nursing bottles, safety pins or Mrs. Winslow's soothing syrup.

The first monumental example of that line of inscriptions was relative to Green Mountain Maid, which is carried to a greater extreme, including "In Remembrance of the Great Mother of Trotters, Born 1862, Died 1888, at Stony Ford, the Birthplace of all Her Children." As Mr. Backman paid for erecting that monument with his own money, he had, of course, a perfect right to use any inscription he chose, and it may have been appropriate in that connection to refer to Stony Ford "children," of which the world never before heard, though quite familiar with the history of the horse Electioneer, the gelding Guy (2:10¾) and the filly Elaine, which held at one time the world's fastest three and four-year-old records, and subsequently produced the champion yearling trotter, Norlaine.

With Hambletonian, however, thousands are interested who prefer a statement of facts in good plain English to any sickly sentimentalism. Furthermore, if any personification was necessary in this case, it should have been introduced at the other end, for while Hambletonian was foaled an ordinary, plain, every-day, nonstandard colt, which with his dam brought only $125, not more than $25 of which could have been reckoned for the colt, as the dam was certainly worth at least $100, honors were showered thick upon him near the close of his career, so that it would certainly be far more appropriate to start off with the time he was "foaled," and then wind up with "passed away," "climbed the golden stair," or something of that sort.

Taking into account that his soles had been previously removed, on the recommendation of a prominent authority on horses' feet, so that the old Hero in his last days could hardly walk or even stand, the picture of him, emaciated as he then appeared, with his sprung knees and hollow back, a-climbing the golden stair, would certainly be beautiful and picturesque in the extreme, and might perhaps be appropriately illustrated on his elaborate monument. His rather coarse head could be represented as up among the clouds, or with a distinct halo over it.

The closing line of the inscription is a trifle too deep for our comprehension or comment.—Vision, in American Cultivator.

The Field.

Opening the Season at the Chino Beet Sugarie.

Especially as the recent report of the U. S. Department of Agriculture may by inference convey the impression that California does not produce good sugar beets, we take pleasure in republishing from the Chino *Champion* an account of the opening of the season's run at the large beet sugar factory at that place:

On Monday morning, July 11, work on harvesting this season's crop of beets was commenced, and at 8:30 A. M. the first load was delivered to the factory. This was about five weeks earlier in the season than work was commenced last season, and the perfect organization and improved methods will make it possible to put beets in much more rapidly.

Mr. Gird alone has been using during this week ten plows for losening the beets in the rows, allowing them to be easily lifted from the soil by the toppers, who pull them, trim the tops with a large knife and throw the beets into baskets especially made for the purpose, from which they are emptied into the wagons. This week there have been about 90 toppers at work, and next week this force will be increased to about 130 to 140. Mr. Gird has 15 four-horse wagons hauling to the factory. Besides this, quite a number of other farmers have commenced to haul their own beets. Yesterday there were delivered to the factory 221 tons. Next week, when the routine work is well established, from 300 to 350 tons will be delivered per day.

It is a noticeable fact that the beets, even from the upper and dryer lands (which are being harvested first), are of a good size and uniform, clean and smooth—as fine a lot of beets as any one could wish to look upon. The sugar percentages are very satisfactory—better than many expected. We append a few of the results of the analyses made at the factory, and upon which the price paid for beets will be based.

	Sugar.	Purity
Asa Kimble	15.9	81.5
Frank Niebel	17.4	82.8
F. L. Prouty	15 5	84.5
J. W. Welte	14 7	80 3
J. H. Palmer	15.2	83.3
F. A. Williams	15.9	81.9
Samuel Hayward	19.7	81
Martin Karcher	15.6	84
R. Gird	17 09	81
Bittle & Johnson	15.7	84.6
F. A. Williams	15.7	80 3
R. Gird	19.4	84.6
Fred Schlueter	16 2	82.9
Samuel Hayward	17.8	81
R. Gird	18.8	87.2
Frank Niebel	17.4	82.8
R. Gird	19.3	85
Asa Kimble	15 9	81.5
Samuel Hayward	16.7	83
R. Gird	15.2	84.7
R. Gird	19.8	87.8
R. Gird	17.7	84.6

These figures are taken at random from the books of the chemist, and are fair samples of the entire number of tests made at the factory. They were not selected for high figures only. Each one of these tests is an average from three or four loads. The manner of testing is to take samples from each of three or four loads of a farmer's beets as they are delivered. These samples are then mixed, and a sample of the mixture is taken for analyses. This makes as fair a test of the entire crop as can be arrived at. In contrast with these analyses it is interesting to note the results attained in Germany, the birthplace of the industry, and where for years it was thought that beets had been brought to their highest perfection. We quote from H. Pohlmann, superintendent of the sugar factory here, and who spent many years as analytical chemist for German factories. In the *Champion* of July 3; 1891, he says: "The highest per cent of sugar in the beet ever experienced by me in Germany has been 14 per cent, and the average ran from 12 to 12½ per cent."

AT THE FACTORY.

A visit to the sugar factory now reveals a scene of the greatest activity. The full complement of men will soon be at work, and then will commence what now promises to be a magnificent campaign. Early on Wednesday morning the last syrup which remained from last year's campaign was worked through the centrifugals, and since then a force of men has been busy cleaning the tanks, floors, etc., so as to have everything in good condition for the long campaign to follow. The output of sugar from the standing syrups was 517,375 pounds, or 258 tons. The government regulations require that when work is commenced on beets for the season the factory be entirely free and clear of all syrups or substances from which sugar can be made, so that no beets could be worked up until the syrup tanks were all empty of last year's product.

Only one of the five 1200-horse power boilers has been used in working up the syrups. The fireman tells us that the machinery is so greatly improved and in such perfect condition that not more than one-half as much steam as was required last year is necessary this.

There are three driveways over the beet sheds this year—one for unloading with shovels, one for the large dump beet wagons, and one for the wagons with nets—so as to insure the most expeditious unloading. Chas. E. Lawrence has charge of the unloading business. Mr. Gird has put in a unique arrangement for unloading the wagons with nets by water power. It is simply a water wheel connected with a windlass. Over this windlass pass the ropes, to one end of which are attached the hooks for raising the net and load from the wagon. It does the work which was done by horse power last year.

Entomological.

Orange Insects in Tahiti.

PAPEARI, TAHITI, June 10, 1892.

TO THE EDITOR:—At different times I have called the attention of the people of California to the great danger arising from the importation of Tahiti oranges without subjecting them to inspection and having them disinfected before distribution.

An orange tree cannot be introduced without a great outcry, but vessels loaded with fruit from the same localities can discharge their fruit without any trouble. If the mischief has not been already done, I request that the next cargo of Tahiti oranges received in San Francisco be inspected, not for scale upon the fruit, but for a worm or grub within. During the latter part of May and first half of June the greater portion of the ripe oranges are stung by a beetle, the egg of which soon hatches and the grub passes into the fruit, and in a short time the fruit will fall to the ground. If the orange is stung by a number of beetles it will fall at once.

One fine orange tree upon my place, which was just ripening its second lot of fruit, was attacked by this beetle and in three days time fully two-thirds of the oranges had fallen to the ground.

I failed to find the parent of the grub last season, but this season, having more time, found it and studied its work. Fruit having this grub has been sent to California for a number of years, but it may be that the grub leaves the fruit before the cargo reaches California.

This same beetle attacks melon and squash vines and causes great destruction among them. It very closely resembles a beetle common upon the squash vines in America. I will send specimens of this insect to California and then we can know a little more about its classification.

In connection with this same matter I would like to call the attention of the authorities to the fruit introduced from the Sandwich Islands and from Mexico. The bananas should be carefully examined.

We have two parasites which feed upon the woolly aphis, and during the past few months it has been difficult to find a specimen of the aphis. I can ascertain if the parasite—a ladybird—is near here or not. I did not discover it until the month of October, when I found it in abundance upon my beans, tomatoes and coffee plants, and in a very few weeks all signs of woolly aphis had disappeared from these plants. ELMO R. MESERVE.

[We shall be glad to see specimens of the insects to which Mr. Meserve refers. We believe that cargoes of fruit arriving at this port are inspected by the officials o the State Board of Horticulture. The above communication may be a warning to all concerned.—ED. PRESS.]

Kerosene Emulsion for Lice.

Prof. A. J. Cook, of the Michigan Agricultural College, speaking of a bulletin issued last year advising the use of the kerosene emulsion to kill lice on cattle, horses and hogs, and ticks on sheep, says:

We had then only used it on cattle lice. We have since used it on horses, hogs and sheep, and are fully persuaded that it ranks first in effectiveness and cheapness as a specific in all such cases. The many letters that we have received the past summer relating to the emulsion, the more timely date and the exceeding importance of the matter, make us repeat with emphasis the advice we then gave. Lice and ticks are very common in nearly, if not all, parts the flocks and herds of the States. They claim no mean per cent of the strength and vitality of our animals. Well-fed animals are not always sleek and fine. The cause is not infrequently found in the tormenting, blood-sucking louse. Tobacco decoction, crude petroleum and the various commercial dips are less efficient, not so wholesome and more costly.

Kerosene emulsion not only kills all the lice, but also nits or eggs, and if the stable be well sprinkled with the emulsion at the same time the animals are treated, the application will need to be repeated only at rare intervals. Again, brushing the animals thoroughly with soap wash seems to cleanse the skin and make the coat more bright and glossy. Without any question, the kerosene emulsion barrel should find a place in every stockman's barn.

The soft soap emulsion is best for this. The more liquid nature makes it easy of manipulation in cold weather, and the large quantity of soap is very cleansing and wholesome. To apply, we use a common brush in case of cattle, horses or hogs, and in case of sheep, dip the animal right into the warm diluted emulsion. The cost of material for an average cow is about three cents, and the time required for treatment less than five minutes.

COOKING THE LIME, SALT AND SULPHUR WASH.—P. B. Armstrong of Lodi has a set of kettles and arches on the second floor of an outbuilding that has a capacity for cooking liquid enough for 14,000 trees daily. It is a great convenience to have it thus elevated, as he can draw it off into the spraying tanks without delay. Harry P. Stabler of Yuba City has a steam boiler and two 300-gallon tanks for cooking the liquid. By running the steam pipe into the tanks while cooking the wash, he keeps up such an agitation that the liquid is thoroughly mixed, and by steaming it two hours or more it becomes thoroughly cooked and mixed in a way to secure desired results when applied. Mr. Stabler finds that some take so little care in cooking the wash that it has no more effect than whitewash. Next year his tanks will be mounted on a staging, so that he will combine the advantages of his plan and Mr. Armstrong's. Frank S. Chapin in Record-Union.

THE HOME CIRCLE.

Friendship.

Once on a time—perhaps 'twas when
Haroun Alraschid ruled—two men
Greeted each other at the gate
Of Bagdad, famed throughout the State.

"Oh, friend," the first exclaimed, "now, say
Why gleam your eyes so bright to-day,
While mine are filled with tears, that run
To lose themselves my beard among?"
"Know, then, I have a friend most dear
In Kandahar this many a year,
Who now has come my lot to share,
My thoughts, my house, my work, my fare!"
"Ah!" cried the first, "my friend has gone,
Whose face I've daily looked upon.
Forever from my sight he's passed
Across Arabia's desert vast!"
Just then they heard the muezzin's call,
"Come, come to prayer!" from turret tall;
And each, with closed ears and bowed head,
"Allah il Allah! Kismet!" said.
Then parted; one with flying feet,
His thoughts on intercourse most sweet;
The other, slow, with stifled groan,
To muse upon his friend, alone.

When some ten years had passed away
The two men met again, one day.
The solitary man seemed glad;
The other downcast, tired and sad.

"Oh, friend," the first one cried, "I fear
You've lost the one you held so dear!
What else could change your joy to mar
In him, who came from Kandahar?"
"Alas!" the other cried, "we still
Abide together and fulfill
The treadmill round of daily life;
There is no bickering nor strife.
All's courteous, civil, decent—yet
I feel, deep down, a keen regret;
He shares my house, my work, my fare,
But in my thoughts he doesn't share!
You're glad to-day—your friend's returned
From o'er the desert?" "Nay. I yearned
To see him; but I might not see;
Yet well I knew his love for me
And would not shame that love. I tried
To live as though he stood beside
To warn, to comfort and to bless;
So grows our friendship more, not less."
The other answered with a sigh.
Just then, from out a turret high,
The muezzin's voice rose clear and loud:
"Come, come to prayer!" Each head was bowed;
And as the sun set, round and red,
"Allah il Allah! Kismet!" said.

Oh, heed the moral well, I pray!
A friend may go and friendship stay,
Or come and friendship fly away.
"Allah il Allah! Kismet!" say.

—Arthur Chamberlain, in Boston Commonwealth.

A Visit to Miss Hetty.

Written for the RURAL PRESS by AUGUSTA E. TOWNER.

It is the middle of July.

A tall, slender woman, in a stylish costume of Bedford cord, and holding a jointed parasol in her daintily gloved hand, may be seen leaving the yard of a highly ornate cottage on the main street of a Southern California town. Hesitatingly, she glances up and down the street as if trying to get her bearings as to points of the compass. Then, murmuring, "Really, this must be west," she turns to the left. Perceiving a thick growth of pepper trees over the sidewalk, she shuts her parasol, and, walking on, glances critically about her.

It is her first summer in California. Naturally fastidious, hypercritical, she, like many another Easterner, notes and magnifies blemishes in her environment, she would, "in the States," pass unnoticed. Her animadversions are miscellaneous and contradictory.

During most of the month of June, the lingering fogs and cool winds, after the taste of heat and sunny skies in May, caused her to sneer at "this boasted California climate." She dubbed it "X—," the unknown quantity, when the oldest inhabitant told her it was every year different, so one could not sa ely prophesy. And she laughed with disagreeable incredulity when told that the winter of '91–'92 was the coldest seen in 17 years. "I've heard that talk in the Bermudas," she said. Even the ruin of the orange crop by freezes, unprecedented before, did not convince her that the "oldest inhabitant" wasn't up to prevaricating excuses.

When the contented resident, from the same part of "the States" as herself, expressed friendliness for the fogs, saying that they gave a welcome night irrigation while the fruit was swelling, she viewed her good nature distrustfully, as a specimen of the *dolce-far-niente* influence of the climate.

She could not, or would not, understand why, when it was so warm in the sun, one often needs a wrap in the shade; nor why, at 80° to 90° and over, she did not swelter as in the East. She almost resented her comfort as a design of the climate to trick her senses. And when, no matter how high the mercury climbed by day, she could cuddle under her blankets at night and sleep, cool and restful, she admitted the fact and tendered her meed of praise, grudgingly.

But the dust! No matter how she had borne dust in the East, alternating with wind, California's dusty roads she anathematized unceasingly. And when the amiable Californian asked, "Did she really expect heaven, and streets paved with gold?" she dubbed the country unenterprising.

By-and-by, she is beyond the limits where the streets are sprinkled, and it is here she must turn down a cross road. Holding up her skirts and shaking a foot at every step, she tiptoes across, looking like a hen with St. Vitus dance.

But to-day, even she has no heart to fret at the dust. The influence of the climate is upon her. The heat, so deliciously tempered by the coast breeze, charms her. So does the appearance of plenty and thrift everywhere, the lovely gardens around the cottages, the glimpses of cultivated fields.

Once she mistook the restful air of the inhabitants for laziness. Now she has seen how they "hustle" during a fruit season, and she reads steady, contended industry on the faces of the passers-by. She realizes this easy air is the result of living on a fruitful soil, where every season has its crop, which an equable climate takes its time to mature—where there is no long winter's freeze, and a hot, short summer in which to prepare for that winter.

Yes, and her fastidious soul has really condescended to enthuse over the present crop—apricots. She thinks it the loveliest, the most esthetic of fruits. Having seen specimens of apricot preparations, and hearing of others, she has determined to secure as substantial memories of the season as her culinary skill can prepare, to take with her back to the bleak New England coast.

The object of her walk is to find a person she has often heard quoted, and get some recipes and instruction as to preserving apricots. "I have never met her. Ridiculously informed," she says to herself. But she walks on, nevertheless. The influence of the climate is upon her, a feeling of amiable restfulness, of happy-go-luckiness penetrating even her "N. P.—" ridden soul.

Presently she hesitates before a small, unpretentious cottage, with a wonderfully pretty garden on one side and a green square of closely shaven lawn in front, whereon, from a whirly spray, falls a sparkling shower of mimic rain. She views the scene with satisfaction. A smile spreads over her face as she sniffs the cool, moist air, laden with sweet scents. And when, from around the corner of the house, a something, brownish-yellow and fat and downy, comes waddling on webbed feet and begins nibbling the green grass with its flat bill, about the corners of her mouth appear long-lost dimples, and she murmurs:

"Yes, this must be Miss Hetty's, and that is her pet gosling Mrs. Bailey told me about."

Then, walking with an approving air over the neatly kept gravel walk, she knocks at the front door of the little cottage.

The door is opened by a plump little woman in a fresh print gown, whose dark hair streaked with gray is smoothly banded back and whose round, dark eyes meet her visitor's with a peculiar child-like directness, while a welcoming smile wrinkles her tanned and ruddy cheeks. This plump little body extended a hand to her visitor, leaning forward as she does so with a cordial air which seemed to say, "Walk right in, please."

"Dear me," thought the tall, prim woman as she involuntarily accepted the warm hand-clasp, "she does not know me from Adam, and I—why, I forgot to ask her name. I have only heard her called Miss Hetty. How ridiculous! I cannot call her so, a stranger," and she is tempted to turn and walk back the way she came; but before she hardly knows it she is seated in a rocking-chair, her hat is off and a fan handed her, while the bright-faced woman with the child-like eyes has been saying: "Walk right in, Mrs. Adams, and sit down. It's warm, too warm to keep your hat on. Here, take this fan and I'll get you a glass of lemonade. I've just made a pitcherful."

And Mrs. Adams, wondering how the little woman knows her name, sips her lemonade gratefully, and her sprightly hostess prattles on: "Mattie was in last evening. Said she thought you'd be in to-day to see about ways of cooking apricots. I've seen you in church several times. Our Episcopal congregation is not so large but that we notice newcomers. Some one told me your name. ("She takes it for granted I know her," thought the visitor). Isn't that breeze nice? My home is so fixed east and west, catches sea and land breezes. Never suffer from the heat if thermometer's in the hundreds. Set my spray going, too; watching the drops makes me cool all over. Imagination works easier that way, don't it, than when one tries to get warm on it, like Col. Sellar's candle in his stove? Ha! ha! ha! And it's such nice weather for drying 'cots, too, isn't it? With a fog now and then nights to moisten up the dried ones. I'm so glad for the fruit drier; and when you are rested wouldn't you like to come right into my kitchen and see some of my marmalade and jelly out of 'cots? Made my jelly all up first; preserves and marmalade now. And oh! don't you want some more lemonade, and will you excuse me a minute? I've some 'cots on my gasoline stove now. My kichen's cool, too, and smell of fruit is so nice."

Miss Hetty flutters away, and Mrs. Adams, smiling amusedly to herself, thinks: "I feel just as I did when I was a little girl and went calling on one of my playmates."

By and by Mrs. Adams is ushered into the neat kitchen with a porch on the south side, dark and cool, covered with Australian pea vine, and one on the north inclosed with wire netting, while tall pepper trees shaded the west windows through which came the ocean breeze. Here she was seated in an old-fashioned "Boston" rocker, comfortable with cushion and head-rest; here she was shown various forms of apricots preserved, and personally observed the bottling of several quarts, and here she posed over cook books, printed and written, asked many questions, was told many things she did not know enough to ask about, and enjoyed such a long free-and-easy chat as she had not had she could not remember when.

At last Mr. Adams tears herself away, but she takes with her a roll of manuscript, notes and recipes, some in Miss Hetty's round, copy-book hand, but most of it in Mrs. Adam's aristocratic chirography, pointed, slanting, the letters looking as though out in a high wind, or else running a mad race, trying to get to the right hand side of the page first.

As Mrs. Adams reached her own door again, she laughed softly to herself, saying: "Why, I do not know her name yet. If I have not been calling her Miss Hetty all the time? Mercy, what is there about that little woman bewitches one so?"

And little Miss Hetty, as she stands in her kitchen blanching kernels for a jar of apricot marmalade, nods her head as she says to herself:

"My! wouldn't she be horrified if she knew I came from 'Bosting' too."

Tom Was a Wise Man.

Senator Stanford has taken lately to exercising by walking up and down the block on Connecticut avenue, writes Kate Field. On one of the last walks he took before sailing for Europe, he met a poor man whom he had helped freely on former occasions. The Senator stopped Tom and inquired how he was getting along.

"Pretty well, Mr. Stanford," replied Tom, "but it is mighty hard work; we just manage to keep out of the poorhouse."

"How many children have you got now, Tom?"

"Ten, sir, I think," said Tom.

"I tell you what, Tom," responded the Senator, "you give me one of the ten to bring up and I'll give you a railroad in exchange." Tom looked delighted for a minute, then scratched his head with a puzzled air.

"Well," prompted the Senator, "what do you say to that?"

Tom looked embarrassed, then stammered out: "Well, now, I don't want to be disobliging, Mr. Stanford, but while you might know what to do with a baby, I was thinking that I wouldn't know what to do with a railroad when I got it."

The Senator thought Tom was one of the wisest men he had met for some time.

WHITTIER'S COLOR BLINDNESS.—John G. Whittier is color blind, and Lucy Larcom, the poet, relates the following anecdote illustrating his infirmity: Driving with Mr. Whittier a few years ago, she saw red columbine growing by the roadside, and asked the poet to gather some for her. Mr. Whittier at once left the carriage, fumbled around among the grass and columbine, and, with his hands on the flowers, called out in despair, "Where are they? Where are they?" "In your hand," said Miss Larcom, who had forgotten the poet's color blindness. Green and red were alike to him. Except in form, Mr. Whittier saw no difference between the green grass and the red columbine.

—First visitor (to museum)—"Did you see that man dining on carpet tacks and nails and things?" Second visitor—"Yes. How I envied him!" "Envied him?" "Just think how he must enjoy shad."

The Spectre Wedding.

Mr. Martin Dupont was a Justice of the Peace in the little town of Marlburg. He had been elected to office at the close of the war of 1812, and had acted in his present capacity for nearly nine years. Men of Mr. Dupont's type were very common in those days, and even now one does not have to search far to find one of these self-complacent, pompous gentlemen, who delight in winning admiration from their associates, who always have at their tongue's end a great many stories in which they played the leading part, but who are, nevertheless, very superstitious, so much so, indeed, that a glimpse of the moon over the left shoulder, or a howling dog, has the power to make them melancholy for a week.

Having failed to secure for himself as large a share of the world's goods as he had wished, Mr. Dupont was fully resolved that his two children, Henry and Margaret, should not be lacking in wealth. As for his son, he very wisely concluded that a good education, added to his natural abilities, would secure for him a place in the world; and already Henry was showing the wisdom of the plan, and by his rapid advancement in business was more than fulfilling his father's expectations. It had always been Mr. Dupont's desire that his daughter should marry some rich man, but Margaret had fallen in love, very foolishly, according to her father's idea, with the principal of the Marlburg High School.

Charles forster had several times pleaded his suit in vain before Mr. Dupont. There was no fault in the young man, Mr. D. rather grudgingly admitted, except that all he had to depend upon was his salary, but still no man should presume to become his son-in-law who had not money enough to support his daughter in better style than that in which she was then living. He liked the school teacher very well as a friend, but as a son-in-law — that was quite another matter.

Nevertheless Charles and Margaret did not despair of their cause, although Mr. Dupont was seemingly immovable. The thought of an elopement was banished by them both as being dishonorable, and as no other plan seemed practicable, they very wisely resolved to wait until some kind fate should come to their aid. This, then, was the condition of affairs when our story begins.

Mr. Dupont's duties as Justice of the Peace did not confine his law practice to to Marlburg, but very frequently he was called away to attend various lawsuits in neighboring towns and hamlets, and it so happened that at this particular time he was engaged in a case of some considerable importance in an adjoining town. On account of the nearness of the place, it was Mr. Dupont's custom to drive his own horse back and forth and to spend his nights at home.

One night, on account of an unusual press of business, he was obliged to remain beyond his ordinary time of leaving, and after the work was completed he yielded to the urgent invitation of his client to chat for a few moments. As they puffed away at the choice Havanas, they began telling each other of various exciting adventures and wonderful experiences. Time slipped away so rapidly that it was after 10 o'clock before Mr. Dupont suddenly remembered that a seven-mile drive lay between him and his home. Hastily bidding his friend good-by, he started for the hotel stable to get his horse.

The weather had changed while the two gentlemen had been chatting, and now the ominous stillness and the cloudy sky admonished Mr. Dupont that, if he wished to get home before the rain began to fall, he must hasten. Hastily throwing a quarter to the sleepy hostler, he sprang into his buggy and set out on his homeward way.

The road was a lonely one; houses were few and far between, and a few miles out of Marlburg some lonely woods lined the road on either side, and adjoining the woods was a graveyard. As Mr. Dupont drove on into the darkness he began to become nervous, the wierd stories that he had just been hearing kept flashing through his mind, a great many wrong deeds of his life came before him, magnified by the darkness and solitude, and among other things he began to wonder if he was doing just right in refusing his consent to his daughter's marriage. In this frame of mind he approached the woods; involuntarily he tried to quicken his horse's pace, but the darkness and the low murmurings of thunder seemed to have affected the horse too, and the sagacious brute tried constantly to slaken his pace. How lonely it seemed there—no houses, no living being, nothing but the dead in the graveyard beyond. Suddenly the horse stopped and

snorted. Mr. Dupont saw two white figures suddenly dart into the road; one stood beside his horse, and the other beckoned him to descend from his wagon. His hair rose and his tongue seemed glued to his mouth. The silence was terrible. If those white beings would only speak; but no sound came from them. At last in desperation he stammered out:

"Who are you, and what do you mean by stopping me here in this way?"

"We are spirits of the departed dead," a sepulchral voice replied, "and we have need of your services; descend from your vehicle, do as we bid you, and on the word of a ghost you shall not be harmed."

The terrified lawyer descended and stood by the speaker's side, while the other ghost tied his horse to a tree and joined them.

"Yield yourself entirely to us and you shall be safe," said the spokesman. "You must needs walk far and must allow us to blindfold your eyes, in order that you may not discover before your time the way to the land of the shades. No more words must be spoken. Obey."

Mr. Dupont was so terrified that he could not speak, and in silence allowed a cloth to be bound over his eyes; then, escorted by his ghostly companions, he began to walk. It seemed to him that he would never be allowed to stop; seconds seemed ages; every attempt of his to speak was checked by impatient groans of his guides. At last, after walking half around the earth, as it seemed to him, he realized that he was being piloted up some steps, and by the feeling of warmth he knew that he had left the open air.

"The justice of the peace may be seated," said the ghost who had done all the talking.

Mr. Dupont sat down and the cloth was quickly removed from his eyes, revealing to his astonished gaze the interior of a room dimly lighted by wax candles. Every side was hung with black curtains, and on four black-covered stools facing him sat four white-robed spectres, while beside him stood another dressed like his companions. Before he had time to more than wonder at his surroundings, the spokesman began:

"Mr. Dupont, we have a solemn duty for you to perform. You are a justice of the peace in the world of the living, and a man dear to us on account of your noble life; therefore are you here. We have in these abodes of the dead two young shades recently come from the other world. Each of these died of a broken heart because a stern parent forbade them to marry. What do you think, sir, of such a parent as that?"

Mr. Dupont wiggled about uneasily in his chair, and at last he said: "I think, good shade, it was very wrong of him."

"We knew you would," resumed the ghost, "because you are a kind man, and one who loves his children. Now do we understand you to say that if the poor girl had been your child it would never have happened?"

"Surely it never would," replied the frightened Mr. Dupont.

"We have not misjudged you, then," replied the shade, while the other four ghosts nodded approvingly. "We have summoned you in order that you may unite them in wedlock, so that in this world at least you may be happy. Such a marriage as this is not common among us, so we brought you here, a good justice of the peace, rather than a minister, who might have been shocked at these proceedings. You can marry them just as well as a clergyman. Now, sir, will you oblige us by marrying these two shades? If you will consent you may depart at once to your home. Will you?"

Marry the two shades? Of course he would; anything to get away from this terrible spot. And so, without the precaution of stipulating his fee, he stammered out:

"Oh, yes, surely, anything you wish."

No sooner had he given his consent than one of the black curtains was drawn aside and two other beings in white entered and stood before him. The other shades rose, and Mr. Dupont, not wishing to be the only one to keep his seat, rose too. The good justice had never married shades; he did not know quite how to proceed. They looked exactly alike; he did not know which was the bride and which the groom. He wished he were well out of it, and the only way to gain his wish was to proceed quickly with the ceremony, and so he began at once. In some way he managed to get through, although he could not have told afterward how it was done. He turned to the bride when he said: "Do you take this woman to be your wedded wife?" and to the groom when he should have addressed the bride; but at length, much to his relief, the "I do" was said by each, and the justice finished with the "I pronounce you man and wife."

But all was not yet over. No sooner had the words left his lips than one of the beings before him threw aside his ghostly robe, and re, in a beautiful wedding gown, stood—his daughter, Margaret. Mr. Dupont started to speak, but he only gasped, for around him stood the other ghosts; they too had thrown aside their robes and stood revealed. Could he believe his eyes? Yes, there was no mistake, he had married his daughter to Charles Foster, in the presence of his wife, his son, and three family friends; and the justice knew enough of law to realize that the ceremony was binding. The black curtains, too, were torn down, and there they all stood in his own parlor.

There was no help for it, consequently Mr. Dupont submitted, and someway all his friends thought that he was very glad that the joke was played upon him; at any rate, in later days, as he trotted his grandchildren on his knees, he never tired of telling over and over again into their wondering ears the tale of the spectre wedding.—Frank D. Blodgett in the Amherst Literary Monthly.

Thackeray's Hearty Meal.

This pleasant story is told of Thackeray by a woman at whose house he visited. After having told a lot of delightful stories, Mr. Thackeray remarked that he must leave, he was so terribly hungry. We told him that we could give him a very good dinner. "There is nothing, my dears, you can give me," he said with a funny sigh, "for I can only eat the chop of a rhinoceros or a slice of an elephant." "Yes, I tan," exclaimed Dot, the three-year-old daughter of the house. She disappeared into a big cupboard, and soon emerged with a look of triumph on her fat little face, holding in her hands a wooden rhinoceros and an elephant from her toy Noah's ark. Putting the two animals on a plate, she handed them with great gravity to Mr. Thackeray. The great man laughed and rubbed his hands with glee, and then, taking the child in his arms, kissed her, remarking: "Ah, little rogue, you already know the value of a kiss!" Then he asked for a knife and fork, smacked his lips and pretended to devour the elephant and rhinoceros.

Chaff.

—There is always room on top—especially for the largest strawberries in the box.

—Young Authoress (reading MS. aloud)—"But perhaps I weary you?" Enthusiastic friend—"O, no; I long to hear the end of your story."

—Scads—"You say he left you no money?" Baggs—"No. You see he lost his health getting wealthy, and then he lost his wealth trying to get healthy."

—Tommy—"Paw, when a man commits political suicide does he shoot his head off?" Mr. Figg—"No; merely his mouth?"

—New Wife—"To-morrow is your birthday, darling, and I am going to stop at the jeweler's and buy you a present." Her Hubby—"Get something cheap, pet. I haven't paid him for my Christmas present yet."

—"WHAT is a propaganda?" inquired the teacher. The boy looked at the ceiling, wrinkled his forehead, wrestled with the question a minute or two, and answered bravely that he guessed it was the brother of a proper goose.

—CONSUMPTIVE: "Yes, the doctor says I won't live six months if I stay here. Is your section of Florida healthy?" Florida Man: "Healthy? Half the people down there want to sell out and come North." "Eh? Why?" "Tired of life."

—HER IDEA OF IT.—Maudie's papa is night-editor on a newspaper—a fact which Maudie apparently hasn't learned; for, when some one asked her a few days ago what her father did for a living, she replied: "I div it up. I dess he's a burglar, 'tause he's out all night."

—A: "WHY have you thrashed your son so unmercifully?" Peasant: "Because he dreamed last night that he won 500 marks in the lottery and then went and spent every cent of it on a bicycle."

THE POPE'S WIT.—A Vatican correspondent relates the following story of the days of Pio Nono: A great French lady, having obtained an audience, threw herself at the Pope's feet and fervently thanked him for having restored her to health. "But how have I done it?" inquired the Pope. "I procured a stocking that belonged to your holiness,' she replied. "One of my stockings?" "Yes, I put the talisman on my diseased foot, and it has been completely cured." "Madame," replied the Pope, a little maliciously, "fortune has been very kind to you. You need only put on one of my stockings and your foot is healed, while I put on both my stockings every morning and I can hardly walk."

YOUNG FOLKS' COLUMN.

Grandfather Longlegs Shedding His Skin.

Written for the RURAL PRESS by ISABEL DARLING.

I heard a softly-cooing tone
And happy, smothered laughter,
And then a sob, and pitying words,
So gently followed after.

To where, just through the door ajar,
Curled close within the corner,
Was blue-eyed Mabel all alone,
Like little Jacky Horner.

"Poor 'ittle bug!" she said and sighed,
Who stole you' head, I wonder?
Did Kittie bite it off, or Dod
Bang-shoot it wiz a funder?

"Oh, Oh! what lots of long, long legs!
One, five, two-forty, maybe!"
And when I softly knelt beside
The loving, wondering baby,

She spread her chubby hand and cried,
With trembling lips and tears of sorrow,
"His head is losted, mamma, see!
Do make him one to-morrow!

"Get what? What's mi'scope? O I know,
The spec'le wiz 'e footies.
I see it now, and wee bit eyes,
Such shiny, teenty beauties!

"What makes his legs so squirmy. Why
They're all in loops and scollups!
He tumbles all across my hand,
Like Robby goes ker-wollups!

"He's pus'in' off his panties, see!
He didn't say 'Please 'scuse me.'
His head's so 'ittle he don't know
It's nice to say 'Please 'scuse me.'"

She gazed from where the shell-like form
Still seemed with motion quaking
To where its newer counterpart
His toilet he was making.

And then in wondering tones she asked,
"O was he just a-bornin'?
He's one, he's two! or did he die,
And is it Gabri'l's mornin'?"

In the Changing Monsoons.

We were upon an American trader, bound for Manilla. The Yellow sea is true to its name, being colored from the mud of the great Si river. It is open to every wind that blows, and to every current that runs, and is always uneasy.

The season was the worst of all the year, for it was just at the changing monsoons. The captain was a daring Yankee skipper, and, with every inch of sail which the schooner could carry, he drove her like the gale itself over the angry Yellow sea.

Just before daylight the men on the port side were thrown unceremoniously out of their bunks. There was a rush for the deck. The wind had shifted without warning. The schooner had suddenly keeled. Men were cutting away the mainmast, for she was capsizing. Her bows were well under water before the strain was relieved, and she emerged, slowly, from the sea that had almost engulfed her.

She was a sorry-looking sight as she fell off before the gale, though the whole transformation was the work of less than ten minutes. What we saw, too, was far from the worst.

The captain's face was grave as he stood by the man at the wheel, watching the prow swinging a hundred feet to the lee at a sweep, then setting down into the dragging, seething foam, as though it had no energy to rise again.

The mate came aft and the captain said: "Man both the pumps and have the extra pumps ready. Set the carpenter at work if he can. Get the tarpaulins out and report." But he did not take his eyes from the prow.

There was something in that weather-beaten man that fascinated me, in spite of the storm, as he stood there, with fixed eyes and folded arms, solely responsible for the lives and cargo about him, master of a leaking and disabled vessel in the midst of a terrible gale. All was hurry and confusion about him, but he did not heed it. There was no shadow of cowardide. He was calmly calculating the frail chances of life against the overwhelming probabilities of death.

The mate reported that the leak was out of reach and that the water was coming in nearly 800 strokes an hour.

"The capacity of the pumps is a thousand stokes," replied the captain. "Keep them hard at it."

All day long the sailors worked at the pumps. The captain was everywhere, relieving an exhausted sailor, working at the ropes, watching the horizon for a sail, examining the water in the hold, always the same calm, quiet, bronzed face, without a trace of anxiety even, except in his Yankee-blue eyes.

The water rose and rose in spite of the tarpaulins and in spite of the pumps. The leaks were increasing and the gale did not abate.

All night long the work went on, and at daylight it was the worst of all. Old, bronzed sailors were fairly white, strong men lay utterly exhausted upon the deck, rolling as the vessel labored in the heavy seas. Even the schooner seemed to have given up the struggle. She drove her bows sullenly into the waves, with no effort to rise above them. Only the captain was unchanged.

When it was fully light, the captain, naked to the waist, appeared among the men at the pumps. "Boys," said he, "the water is gaining on us. If the gale lets up we may hold her till daylight to-morrow. If it keeps on we shall go down with the sun. We are a hundred miles from the shore, making four miles an hour. There are two boats left. Those who wish can take them now."

There was silence for a moment. Even the gale whipping through the rigging seemed to wait and listen as one poor, haggard fellow who had fallen upon a coil of rope staggered to his deserted post, exclaiming:

"To the pumps, men! For life and the captain! Who dares desert the ship?"

That was enough. The pumps worked away as they had not for 12 hours. The wind abated more and more. The tarpaulins caught, and two hours later came the cheering news that we were gaining on the water. Still, for more than 20 hours we worked.

I have seen the ship that carried me on fire, I have been cast upon the rocks at midnight in a hurricane at the foot of the Red sea, but I would rather go through both again than repeat those two days and nights upon the Yellow sea.

Not a sail appeared, but we sighted land at last, reached the harbor, and ran the schooner aground.

As boats started with the ropes for shore, and the sailors burst into a cry of joy, the Yankee skipper, who had kept hope and strength in us all, pressed his hand over his eyes for an instant, and then fell senseless to the deck.—Lieut.-Col. Thorndike, in July Wide-Awake.

DICK'S AFTERTHOUGHT.—A certain celebrated Southern judge, who was not a believer in revealed truth, was in the habit of twitting his body servant on religious matters. "Dick," he said one day, "you say the devil besets you; now I want to know why he lets a sinner like me off free?" Dick could not tell why, but the next day he went duck-shooting with his master. The first time the judge fired into the flock he killed two or three and wounded as many more. At once the hunter threw down his gun, and with sticks and stones tried to make sure of his wounded game, but paid no attention to the dead ones floating down the stream. "Massa," called Dick, "it jist come to my mind why de devil troubles me so much, sah, an' lets you 'lone. You like de dead duck; he done got you safe, sah. I is de wounded duck; I is tryin' to get away, an' he feared I gwine to do it. If you wuz to flutter a little, sah, and mek' out you gwine git 'way, I spec' he mek a big splash arter you, same he do arter me, sah."

ROYAL

BAKING POWDER

Absolutely Pure.

A cream of tartar baking powder. Highest of all in leavening strength.—*Latest U. S. Government Food Report.*

AGRICULTURAL NOTES.

CALIFORNIA.

Butte.

THERMALITO FRUIT ITEMS.—Oroville *Register*: The fruit trees at Thermalito this season are doing better than ever before. The new orchards are being taken excellent care of and the ground is in fine condition. The orange trees are exceptionally large and thrifty and they are thoroughly cultivated. This fact is noticeable and patent to all, that whenever the land has been well cultivated the trees have thriven marvelously. On the other hand, whenever poor and stunted trees are found the ground shows that it has not been kept in good condition. We never saw the whole colony looking better than it does now. On every hand improvements are going ahead, land is being prepared for winter, when a large additional acreage will be planted. We learn that a 60-acre olive grove will be planted next winter on land east of Chas. Retson's residence. This is higher toward Table Mountain than any land yet planted in the vicinity. Messrs. Fogg, Harkness, Martin and others are interested in this big grove. Mr. Stanton will put out 17 acres of oranges this coming winter, and many other improvements are contemplated. There will be a good orange crop at Thermalito this fall and winter.

Kern.

GRAIN WITHOUT IRRIGATION. — Bakersfield *Californian:* Between this valley proper and mountains which encompass it upon three sides, there are elevated mesas which until recently have been considered comparatively worthless, as irrigation by the present system of canals is out of the question. But of late, led perhaps by the remarkably good results in the similar-lying lands around the mountain valleys of Tehachapi, different parties have been sowing grain, and it seems reasonably assured that good crops can be obtained for probably four seasons out of five. It is generally conceded that the best way is to summer-fallow, then, in the fall, cross plow. It will not do to scratch the ground, the plowing must be deep—ten inches will be three times as productive as three inches. And it is also advisable to sow the grain with a drill rather than broadcast, as by that means it roots deeper under the ground and is better protected when first sprouting if a few hot days should come. This season, Pogson & Bailey have 330 acres in section 34, which they cut for hay, and are now regretting it, because, had it been harvested it would have yielded at least 13 sacks of grain to the acre. J. G. Stahl has 30 acres, and J. F. Morris 45 acres, outside of the Tejon fence, that would have yielded handsomely if harvested, and has cut form one and a half to three tons to the acre. Within the boundaries of the Tejon rancho, 1350 acres were sown in grain. It is being cut and stacked under contract, by the Oldershaw brothers of Antelope, and will probably average two tons of grain-hay to the acre. Had this been harvested, it would have returned a splendid yield of grain. The lesson of these results is, there are now tens of thousands of acres of idle land able to yield a handsome revenue under cultivation without irrigation, which the owners, if wise should no longer neglect.

FARMING ON THE WEED PATCH.—Grangeville Cor. Visalia *Delta*: George Mashmayer reports things flourishing in the Weed Patch. His father, William Mashmayer, will clear $20,000 over and above expenses this year on his grain. It is going 16 sacks to the acre. They own their own combination harvester. But little water is required for irrigating purposes, and what is needed they furnish with a steam pump. They have 80 acres set to fruit, which is two years old and in a thrifty condition. Mr. Mashmayer has a section and George has a quarter section, all fenced rabbit tight. He was on his way to San Francisco to purchase another quarter section adjoining his present holdings. Mr. M. will be remembered as the owner of the place now known as the Del Monte vineyard, opposite George Reaves' place. George M. also stated that two years since land in the vicinity of the Weed Patch was selling at $3 to $5 per acre, but now it is $25 to $30 per acre. Although George thinks the Weed Patch is a dandy, he does not hesitate to say that the Lucerne country is far the best.

Los Angeles.

POMONA APRICOT CROP.—Cor. L. A. *Express*: The latest and best reports of the apricot crop in Pomona this season are that the yield will run over 1000 tons.

ARTESIAN WELLS.—L. A. *Farmer*: Los Angeles county has 627 artesian wells, the second largest of any county in the State. Orange county leads with 649. The average depth of the artesian wells of this county is 187 feet, the shallowest being 20 feet and the deepest 600 feet deep. These spouters cost an average of $394 each, and flow at an average rate of 192 gallons per minute. The ordinary flow from one of these underground streams would therefore cover one acre about ten inches deep every 24 hours.

Nevada.

FINE WHEAT.—Grass Valley *Telegraph:* Mr. Peaslee, who has a farm about 16 miles southerly from Grass Valley, brings us a sample of wheat grown on his place this year. The wheat is the White Australian. The stalks are fully five feet long and the heads are large with full and plump white grain. Mr. Peaslee has just cut eight acres of this wheat, and it will give over 35 bushels to the acre. The wheat patch was beautiful to look upon before it was cut, the heads all being on a level. Mr. Peaslee holds that a man reaps what he sows, and that when he plants good seed he will get good results. He says our foothills, with proper planting and cultivation, can beat the valley sections in the way of raising grain. Mr. Peaslee's barley this year is as fine as his wheat, and it is the same thing with all his crops.

Orange.

DRIED APRICOT CROP.—Orange *News*: The output of dried apricots from Orange county this year will be at least 300 tons. The fruit is in good demand, and offers of ten cents per pound have been freely made. The bulk of the crop has already been sold at that price, but many are holding for an advance with good prospects of receiving it. Ten cents is a fair price, and the chances are that those who sell now will do as well as those who hold.

Plumas.

A MOUNTAIN CREAMERY.—F. S. Chapin in Sacramento *Record-Union:* At Sierraville, A. S. Nichols has gathered a dairy of nearly a hundred grade Durham cows. He has a nice creamery, with De Laval separator and modern appliances, and sells no butter less than 25 cents per pound. He has a hill range for dry cows and beef cattle a few miles from the home dairy and carries on quite a butcher business, as a man needs to do who is buying cows for dairy purposes. He bought three high-priced sires because they were Holsteins, and has reached a point in his dairy education where he is in the market for a bull representing a long line of ancestors noted for prepotency in the direction of butter. He is well pleased with the beef qualities of the breed, but wants a stock that will produce butter as well. His grade calves look almost as fine as a lot of thoroughbreds, but it is partly owing to his excellent system of feeding the warm milk directly from the separator in such a way that each calf gets his share in a clean pan. He has a row of 40 stanchions, with gates leading to two outside pens and a third to the calf pasture. For the first week or two, the calves are kept in the kindergarten on milk as it comes from the cow. Here they are taught to drink. Then they are promoted to a place in the pasture. When feeding time comes, 40 calves are turned at once from the pens to the stanchions. Each has his share of milk in a clean pan that was scalded since last feeding. No one can disturb his neighbor. The older calves are getting a little oilcake every day, and many of them are now fit for veal. Mr. Nichols intends to keep on testing, selecting and breeding cows, until he gets 100 that reach his high standard, producing not less than 300 pounds of butter per year. He is almost equally interested in swine, and is a good customer for the best Berkshire breeders. He killed, for the Fourth, a grade Berkshire that was 90 days old and dressed 68 pounds. The mothers produce seven to eight at a litter, and the whole crowd will average one pound live weight for each day of their age. A large share of this remarkable result is due to their being fed on plenty of milk as it comes warm from the separator.

San Bernardino.

HIGHLAND FRUIT AND HONEY NOTES.—Cor. *Times-Index*: The apricot crop is of very insignificant proportions this season, hardly warranting the expense of picking. The peach crop, however, is a very large one, and the quality of the fruit promises to be exceptionally fine. Dried fruit buyers, of whom there are a number in the field at present, are offering 9 to 9½ cents per pound for dried apricots, and at these figures have managed to pick up an occasional small lot. Our advice to deciduous fruit growers is to hold their products for higher prices, which will assuredly rule later on in the season, as both domestic and Eastern markets are completely depleted of dried and canned fruits of all descriptions, and will, on account of shortage in Eastern fruit crops, necessarily be compelled to purchase extensively of our products. Similar conditions are prevalent in the honey market, and our apiarists would be exceedingly foolish to dispose of their crops early in the season at 5 cents per pound, which several buyers are now offering for extracted. We are pleased to note, however, that the apiarists are not inclined to accept the above price, and are holding for 6 cents per pound, which they will undoubtedly obtain.

San Diego.

AN ENEMY OF THE RED SPIDER DISCOVERED. *San Diegan:* Horticultural Commissioner Jones reports a new discovery in the form of a natural enemy to the destructive red spider. The red spider has become one of the most destructive foes to horticultural interests, and especially on the uplands near the coast. It has been particularly troublesome at Chula Vista, and all treatment has failed to permanently eradicate it. Commissioner Jones observed lately, however, that in an orchard previously affected, the spider was disappearing without special treatment. He looked for a cause, and finally found it in a short-winged fly. Commissioner Jones will have specimens of this fly on exhibition, and will report further results.

Santa Barbara.

FRUIT CROP.—S. B. *Independent*: At the monthly meeting of the Santa Barbara County Horticultural Society, Mr. Knapp of Carpinteria reported apricots abundant, but not up to the usual standard of quality; peaches were said to be fine; pears early, with good prospect; walnuts, heavy crop and doing well. Mr. Stevens reported on Montecito. He said there was a large crop of apricots, but being under size there was no sale for them, while Mr. Knapp stated that at Carpinteria apricots were bringing from ten to fifteen dollars per ton, delivered at the depot; that 20 boxes of 50 pounds each was a good day's work for a picker; 50 boxes are hauled per load to the station, thence shipped to Newhall to be dried in the sun. Mr. Holden of Goleta reported a fair crop of fruit in his vicinity. Walnuts were looking well; apricots small. (It seems a great pity we have no factory here for the manufacture of jam and jelly, when fruits are off size and abundant. It would present a desirable addition to our resources and give much needed employment to women and children.) Owing to the unfavorable season, so Mr. Holden stated, but little planting of orchards had been done. Mr. Stevens said that 2500 lemon trees were about being planted in his immediate neighborhood, besides the smaller groves that had been planted.

Santa Clara.

CREAM OF TARTAR WORKS.—S. J. *Mercury*: A new industry, and one of great importance to the county, too, has been established on Bush street, near the narrow gauge depot. The California Cream of Tartar Works, of which G. De Latour is manager, were opened in San Jose last summer and $10,000 were expended in the erection of a building and plant on the present site of the factory. The cream of tartar is made from the pomace from the wineries, which before the establishment was a total loss, but for which Mr. De Latour pays $1.50 per ton, and he uses all there is to be had in the county. The pomace is first boiled in tanks on the upper floor and then carried by a large crane and lowered into a press on the second floor. Here the liquor is pressed out and run into large copper tanks, where it is crystallized by cooling. There is very little machinery to be operated. Mr. De Latour says he proposes to spend $7000 in improvements before the season opens this fall.

FRUIT NOTES.—Los Gatos Cor. San Jose *Mercury:* The fruit-gathering season may be considered fairly commenced. Early peaches are coming in quite plentifully, though some weeks will elapse before the varieties sought by the packing compnnies will be in condition. Apricots of all varieties are beginning to show the golden hue, which means that every orchardist must have a full team for picking in a short time. As usual, the Moorpark is not a full crop. The size, however, is all that can be expected. Other varieties are not quite up to the average size. Conflicting reports as to abundance or scarcity occur, depending upon whether a buyer or seller is interviewed. Averaging the reports, a fair crop may be expected. The prices certainly have an upward tendency. It is now known that the dried fruit of last season has been pretty much cleaned up or consumed, leaving but a small margin until the new fruit gets into market, and there is a general tendency to hold for good prices or dry on the farms.

WINE NOTES.—Los Gatos Cor. San Jose *Mercury*: According to the best accounts, the wine interests are looking better than for some years back. The Saratoga and Los Gatos Winery, as well as the Los Gatos winery, has worked off nearly all its last year's stock to good advantage—a fact thus proved by the prices of stock which are at par or above. The Los Gatos Winery tried the experiment of concentrating grape juice to a point beyond fermentation with good success. This must will keep in any climate and bear any amount of transportation, and is much used where thick, heavy, syrupy wines like Port are wanted. Besides being non-fermenting, the freight on its transportation is only about one-third that on the unconcentrated juice. It is worthy of notice that the Old Mission grape, raised by the Mission Fathers, is coming to the front again, especially for white wines, for which it is especially adapted on account of its high percentage of sugar, or resulting alcohol. Having no particular flavor of its own, it is readily qualified by judicious blending with grapes of positive flavors like the Zinfandel. The latter grape seems to be the standard for red wines. The Pinot, Malbec, Sauvignon, Vert, Cabernet, etc., will continue in demand for blending purposes.

Solano.

YIELD OF GRAIN. — Dixon *Tribune*: The *Tribune* has interviewed a number of farmers and presents the result below. Very few could be seen at this busy season, but a fair average can be gained. Frank Robben's summerfallow wheat yielded 14 sacks and winter-sown 9 sacks to the acre. H. Peterson's summerfallow averaged about 15 sacks, and his winter-sown 10 sacks per acre. S. R. Benninghoff's winter-sown wheat yielded 11 sacks to the acre. N. B. S. Coleman's summerfallow wheat averaged 12 sacks an acre. J. M. Dudley's summerfallow wheat is averaging about 15 sacks. H. Barnhart's summerfallow wheat is averaging about 10 sacks, volunteer wheat 6, barley 15 sacks. R. E. L. Stephens' winter-sown wheat is averaging 9 sacks to the acre. R. J. Currey's summer-fallowed wheat is averaging between 13 and 14 sacks to the acre, and the winter-sown about 10 sacks.

NUMBER OF FRUIT TREES.—Benicia *New Era:* Solano county has, at the present time, 1,046,482 fruit trees in bearing and 896 nonbearing. They consist of the following varieties: Apple, 3194; apricot, 228,584; cherry, 25,897; fig, 14,673; olive, 6187; pear, 185,781; prune (French), 123,546; lemon, 160; orange, 4346; almond, 89,499; walnut, 4468; nectarines, 9699. There are 3385 acres of grapevines in the county, of which 1228 are devoted to table and raisin grapes and 1158 to wine grapes. The remaining 896 acres are not yet in bearing.

Sonoma.

A LARGE SALE OF WINE.—Cloverdale *Reveille*: The largest sale of wine for some time in this section is the one which Mr. Smith of this place consummated with wine dealers in San Francisco. It embraced wines in his cellar of the vintage of '88, '89, '90 and '91—in fact all the wines he had for sale. Several carloads have already been shipped, and the balance is being forwarded as fast as possible. Altogether, it makes 15 carloads of ten tons each, or 150 tons gross of wines. These wines are highly thought of by dealers in the city, and much more could have been disposed of had the Smith cellars contained it. The prices were satisfactory, of course, to both dealer and manufacturer.

Sutter.

THE HONEY CROP.—Yuba City *Farmer:* The honey crop is being harvested at this season, and this county has quite an output of this product. At South Butte, Wm. Thompson & Son have several hundred hives which, with attention, will usually net from $2 to $3 per hive. The honey is excellent quality, the bees feeding on the wild mint along the tule borders. Those who have tried the business in this county report good profits from the same.

PEACH CROP SOLD TO A CANNER.—Yuba City *Independent*: The entire peach crop of the Abbott orchard, with the exception of the Crawfords, Alexanders and Fosters, was sold Friday to a San Francisco cannery. The sale will call for the delivery of from six to seven hundred tons of fruit, of the approximate value of $20,000. The purchasers take all fruit down to two inches in freestones and two and one-eighth in clings. The varieties excepted from sale will go East.

WHEAT CROP. — *Independent*: The harvest has now progressed far enough that an approximate estimate can be made of the yield of grain in the county. From information received from all parts of the county, we conclude that the yield will be good but not up to the standard of the best years either in quantity or quality. While the winter and spring on the whole were favorable to a good stand and uniform growth, short spells of mildly unfavorable weather had a slightly injurious effect. The wheat samples that have been brought in are good, but do not weigh quite as much to the bushel as the best wheat of last year. The average yield per acre will probably go 80 per cent of the best years; but as but little grain was drowned out, the aggregate will be nearly a full crop. The price of wheat remains low.

Tehama.

LARGE FRUIT-PLANTING.—Corning *Observer*: We had an interview with Mr. C. F. Foster of the Maywood Colony firm, and he informs us that arrangements are already made to plant about 500 or 600 acres in fruit trees for parties who have bought land in the colony.

Tulare.

DRYING APRICOTS WHOLE.—Hanford *Sentinel:* W. G. Nicholson has finished up his apricot harvest. His four-year-old apricot orchard yielded him $100 per acre net. He has dried a couple of tons of the fruit whole, and has made a great success of the plan. The cots are pitted without being split in two, and when properly cooked are equal in taste, if not superior, to canned apricots. Mr. N. says that the fruit should be soaked over night, then simmered (not boiled) in cooking. Boiling dried fruit of any kind detracts from its flavor.

FRUIT NOTES FROM AROUND GRANGEVILLE.—Cor. Visalia *Delta*: J. E. Tilton has got seedling apricot trees of the "Tilton" variety that yield considerable fruit. The fruit from two trees was picked and weighed. One tree yielded 15 sixty-pound boxes and the other 16 sixty-pound boxes. One tree, when six years old, produced 1100 pounds of fruit. The trees are now seven years old. The fruit is a fair size, good flavor and fine drying apricot. Ed. Gerow obtained four tons of apricots off three acres of orchard; that would be $266.66 per acre gross, at 10 cents per pound, which they are selling at. Raisin trays are being hauled in all directions, and the sound of the hammer can be heard from sun to sun.

LATE CROP GRAPES.— Hanford *Journal:* A way of disposing of the second and third crops of grapes produced in Lucerne, which are unfit for raisins, is a subject of much interest to fruit growers, and the distillery of the same into brandy seems to offer the best inducements for profit. In conversation with A. Hillstrom of this city, who was engaged for several years in the distillery business at Fresno, we gain some information which will be of interest to the raisin growers. He says that for a sum not exceeding $6000, perhaps for $5000, a distillery can be built that will have a capacity of producing 500 or 600 gallons of brandy daily. In Fresno the prices paid for second-crop grapes range from $8 to $14. He says that he purchased grapes there at $10 a ton, and then made a good profit in distilling them.

GRAIN CROPS TURNED OUT WELL.—Traver *Advocate*: Harvesting is well advancing and many machines are neatly tucked away for another year's use. The grain, taken as a whole, is considered excellent, and the general acreage good. The warehouses are becoming well stocked with grain, and a few shipments to intermediate points have been made, although many of the farmers are awaiting higher quotations.

ARIZONA.

CROPS IN SALT RIVER VALLEY.—Phœnix *Herald:* The crop of fruit in the Salt river valley this season is exceptionally large in quantity and fine in quality. The apricot crop was splendid, and the whole thing has been canned and dried in fine shape. Early peaches have also been on for some time, and nectarines and figs are ripening rapidly and in abundance, and the whole crop will be saved this season, thanks to our canning and drying facilities. These fruits should be secured by our merchants here and handled in preference to foreign fruits. Home industry is worthy of recognition. The farmers never received better average prices for all of their produce than they are receiving today with a demand for everything they can raise. The chances are that the supply of wheat, flour, barley and hay, furnished by this valley, will be exhausted long before the new crops put in an appearance next year, and prices will be accordingly good.

PATRONS OF HUSBANDRY.

The Secretary's Column.

By A. T. Dewey, Secretary State Grange of California.

EXECUTIVE COMMITTEEMEN Hon. Thos. McConnell and B. F. Walton will be at Sacramento next week, and probably Master Davis and Committeeman Loucks.

ELK GROVE GRANGE recently lost its property (except the seal and minute books) by fire. The suffering Patrons and citizens of Elk Grove have our sympathy and hopes that they will shake off the ashes and work and prosper even better than of old.

QUARTERLY RETURNS.—Many reports for the quarter ending June 30th have been received. Others due, we trust, will soon be received, showing that Granges are alive and prospering all around the circle.

OFFICERS' REPORTS.—There is a standing resolution that annual reports from all officers of the State Grange shall be forwarded to the Secretary at a date not later than the 1st of September, and that the same shall be printed and ready for circulation at the opening of the State Grange. This resolution has been a dead letter heretofore from the fact that very few reports have ever been received by the Secretary in time to have the same printed. Shall the resolution remain dormant? Will not most, if not all, officers forward their reports in season for advance printing this year?

AMENDMENTS.—Patrons, remember that all proposed amendments to the constitution must be forwarded to and submitted by the Executive Committee, through the Secretary of the State Grange, to each subordinate Grange one month in advance of the State Grange meeting.

SAN JOSE.—E. T. Pettit, W. M., writes: "We are keeping up our usual interest in Grange work and planning for a hearty welcome to the State Grange next October." San Jose is the beautiful "Garden City" of California, and all old State Grangers know that a grand reception will be in store for Patrons at the coming session.

"GRAND AND PURE."—J. W. A. Wright, the first Master of California State Grange, and author of the National Grange Declaration of Purposes, in a recent letter, remitting one year's dues to Temescal Grange, remarks: "I certainly wish to have the privilege of retaining my membership; indeed, when Death's call comes, I want it to find me in good standing in that grand and pure agricultural brotherhood that I have loved so heartily and for whose good I have labored with all my might, and with no small personal loss pecuniarily to myself, so long as I had the opportunity and its official duties to perform. Had the ventures of life blessed me with an abundance, or had not my great financial loss on the dry plains of Southern California involved me with such payments of debts as I have been able to make (so that I have never yet gotten ahead), I would not only keep my dues advance paid, but would *give* to the cause that I have so loved. In kind and fraternal remembrance to all, etc."

EXCURSION RATES.—No doubt the usual reduction of one-third fare, first-class rates, will be granted by the transportation lines to all members and visitors to the State Grange meeting at San Jose, October 4th. This will furnish a favorable opportunity for many from all parts of California to enjoy a visit to that delightful city and its surrounding fruit farms and vineyards; to the Lick Observatory, close by, on Mt. Hamilton; the famous New Almaden quicksilver mines, 13 miles southwesterly, and the elevated vine and fruit regions of the Coast range in the direction of Santa Cruz, which pleasant watering place is about 30 miles, by narrow gauge railroad, west of San Jose.

MRS. HUER, of Mt. Eden, is editor of the *Rustler*, read at each meeting of Eden Grange.

"THE WORK OF ANOTHER DAY, ETC."

During the past four years the State Grange of California has been well building up in financial strength. It has also been gaining the confidence of each other and of the world at large. But has there not been a large amount of real Grange work that has been neglected during the years that have gone by? Should there not be preparations already going on for some course at our next annual session whereby there will not remain so "many things undone that ought to to be done?"

Our State Grange, as a rule, resolutes first-rate; but how do we carry out our resolutions? Do we not need a decided change in some respects? Can the State Grange expect an Executive Committee of three persons, who receive no pay for their time, and the sacrifices that have to be made of their private business to attend sessions of the committee, to pay their fare and board in attending all sessions, and do all the work that ought to be done between the annual sessions of the State Grange?

Ought we not to have at least five members on the Executive Committee, representing different interests and localities of the State? Are there not capable and zealous men and women enough to provide a larger board to meet to advantage at least once a quarter instead of semiannually, according to our present constitutional provision? We have a good committee; but is it numerous enough, and do they meet often enough, or can they be expected to without remuneration for time or expenses?

I ask these questions as a matter of present duty to my fellow-Patrons, believing that they have not thought of, or duly and fully considered the questions here stated. Let them be considered by the many, and also in time to provide for action, if thought best, at our next State Grange. So far, there has been no proposed amendments to the Constitution and By-Laws offered for the next session.

FOR THE GOOD OF THE ORDER.—Officers, Deputies and Secretaries can serve the good of the Order by putting information into as condensed and convenient shape as practicable for both local and State publishers Many Patrons could render publishers, readers and the Grange excellent service by sending in items, whether written in elegant style or not. Many can write better than they think for before trying their hand.

ORDER OF EXERCISES.—It is customary in most States for the Executive Committee to have prepared and published in program form a proper order of exercises for the annual session of the State Grange. A liberal number of copies are sent to each Grange sufficiently in advance to apprise its members of the important subjects to be discussed, and the rare musical and literary treat to be spread before them. This inspires interest in the coming session, and adds much to the pleasures and profits of the gathering. It certainly is a good policy for such important gatherings to have, as far as practicable, the leading announcements for the session understood in advance, and not have many of the best features of the program through the entire session announced only from day to day.

NOW FOR GRANGE WORK.—The rush of the grain harvest is over in most parts of the State. The live membership of the Grange doubtless stands better than it did one year ago, but there has not been that large increase which we ought to expect in prosperous times. The Grange is a solid, permanent organization. Its members owe the Order their good services. There is still nearly three months of the Grange year to cooperate in establishing new Granges and increasing the membership of others. Our annual session opens in the "Garden City" of California on the 4th day of October next. Let the members of every Grange use their efforts to make the best annual report possible, and then (as numerously as feasible) attend the session with the representatives and alternates and help make the session of 1892 not only an unusually profitable, but a specially memorable gathering.

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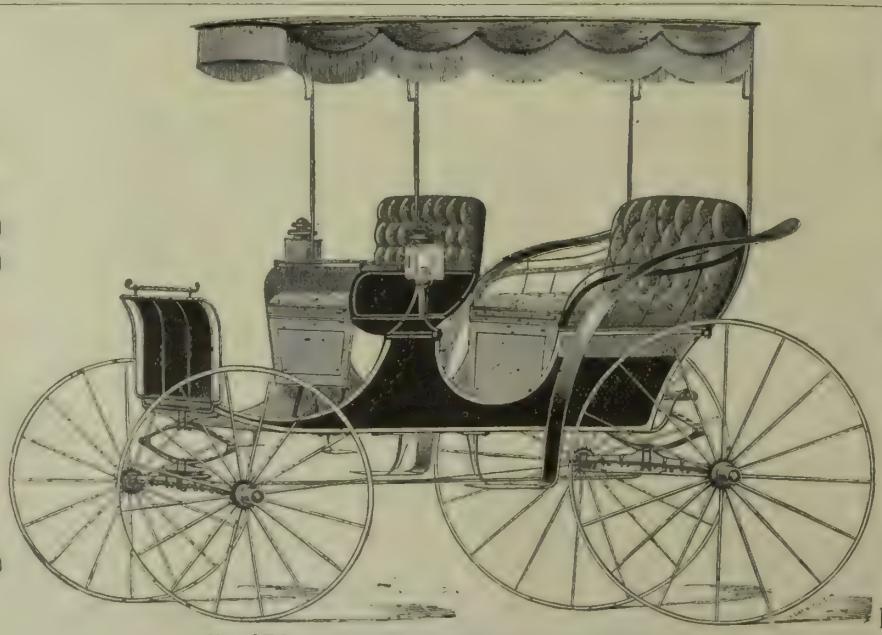

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A clear title; rotation, variety and certainty of crops; easy terms; availability to persons in moderate circumstances; ground ready for the plow—no stones nor thistles; good society; schools; churches, etc., are a few notable attractions of this region of country.

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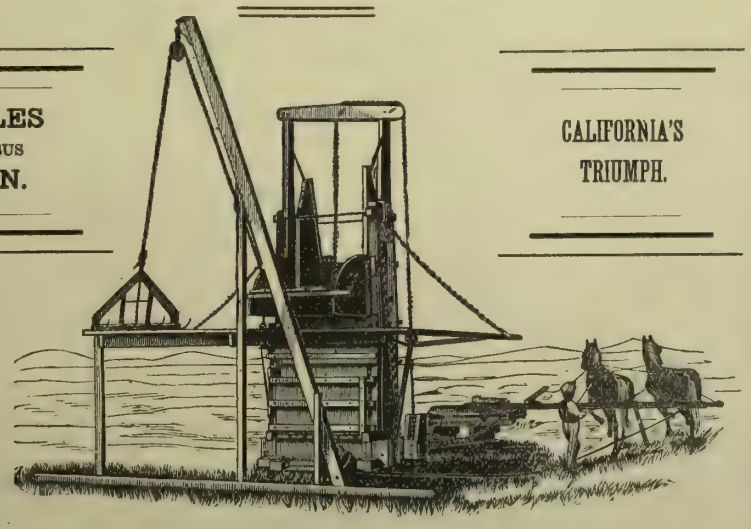

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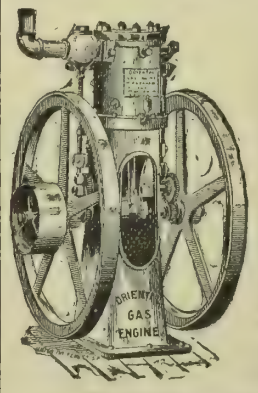

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POULTRY YARD.

Sallee's Home-Made Incubator.

J. W. Sallee of Clinton, Mo., who if we mistake not was formerly resident in Southern California, writes to the *Poultry Keeper* as follows:

I have made an incubator in my cellar, which is 8x8 feet. The tank is just eight feet square, and the walls of the cellar eight feet two inches square, leaving a space of one inch all around for ventilation. The walls are double, and filled in with sawdust. The water is heated by an upright tubular steam boiler. The steam is forced into the water near the bottom of the tank and in an oblique direction, so the water is forced in a rapid current around the tank. When the water is hot enough in the tank, the steam is turned off. I have several thermometers on the eggs at different points, but this is unnecessary if the incubator is properly constructed and the egg trays all on the lever. The top of door into incubator should be below the eggs, so the hot air cannot escape except through the ventilator. There is no necessity to have the bottom of the cellar filled up too near the eggs. I had mine arranged thus, save a ditch in center in which I went to turn the eggs. But the proper construction is to have the top arranged as above described, and have at least six feet space below the eggs, the whole cellar in fact, with walls close, so air cannot get out or in except as desired. The hot air from the tank will not fall to the bottom of the cellar, nor the cool air in the bottom rise to the eggs. With disinfectants and absorbents, all poisonous gases from eggs are absorbed, and the large body of pure air around the eggs will insure a better hatch. Moisture is supplied in the usual way, but more particularly by turning the steam hose loose in the cellar, both warming and dampening the air. This steam moisture is the best of agencies to success. I am going to enlarge the incubator to hatch 1200 dozen eggs at one hatch, and have the trays arranged so I can go under them, with at least six feet of space below the trays, and also have the trays double, with eggs confined between, and hung on pivots, so I can turn by simply revolving on the pivot. In this way I can turn the whole 1200 dozens in 15 minutes without exposing myself to the hot air above the eggs, as I now have to do. The air in the ditch, below the eggs, is always cool, and the air in cellar, below the eggs, will be pleasant when the eggs are at 103° temperature. The difference in the temperature of the eggs, the thermometer standing up between fertile eggs and one laying with the back upon the eggs, is four degrees. I aim to keep the one laying on its back at the temperature of the hen. This I do by putting my thermometers—each one of them—under a healthy hen and getting the correct temperature. Then I make a scratch opposite this standard, and always aim to keep the temperature near the "hen scratch." One thermometer stands at 108, another 103, another 105 and so on; but when the correct standard is registered on the thermometer, you only have to look for that. With so large a body of water and walls, so the air cannot escape, and made of good nonconducting material, there is no trouble to keep the temperature at just what you desire. A little heating, morning and night, is all that is necessary. You see that I have built upon the principles exactly of the "Poultry Keeper Incubator." But mine is nearer the correct principles, having more pure air, an easier way of supplying moisture, more perfect heating apparatus, and, what you have not, the earth itself at the bottom of the cellar to absorb carbonic acid gas. I built this incubator upon my own ideas of what was necessary for a large incubator, and I have not been disappointed in a single particular. My hatch, all through the season, has been 80 per cent, and much of the loss was because I thought the temperature, a little above the "hen scratch" about the time of hatching, would not hurt anything, but it *did* kill many chicks. The instructions of letting the temperature fall a little the last few days should be strictly observed. About the fourth day is another time the heat should not be allowed to run high. I did let the temperature run too high when one-half the eggs in the incubator were just four days in, and the other one-half had been in nine days. The first eggs put in were not injured, but many of the last I lost. The germ is more tender at that age—four days—and cannot stand much exposure either way. I have over 2500 chicks hatched at two sittings. The chicks are doing well.

How to Select a Good Layer.

How many poultrymen can pick out a good laying hen from a strange flock? Not many can do it; yet it can easily be accomplished after a short study of the make-up and characteristics, says the *O. C. Farmer*. There goes a hen with a thick neck, long head, ill-shaped, walks listlessly about, seemingly with no purpose or intention in view. She doesn't care to scratch, but hangs around the hen-house, evidently waiting for her next feed. She gets up late in the morning, and goes to bed early in the evening. That hen may be put down as a very poor layer. The eggs of some of the other hens go to help pay her keep. Here comes another hen. She walks briskly, and there is an elasticity in her movements that denotes she has something in view. She is neat and natty in appearance, small head, with slim neck, nicely arched or curved. She forages and scratches all day long, and may be too busy to come for her evening feed. She is at the door in the morning waiting to be let out. She snatches a few mouthfuls of food, and is off to the meadow, looking for insects. Before she gets out in the morning, she generally deposits her daily egg in the nest, or returns after a short forage. She is neat, clean and tidy, with a brightness and a freshness pleasing to the eye. That is the hen that pays for her food and gives a good profit all the year round. The writer has noticed these traits since boyhood, and knows that they are infallible. By studying these traits, any man may in a few years, by selection, have a fine laying flock of hens. Fanciers perforce must have good and bad layers, as they breed for feathers in the main, and the poor layer may be the bird with the fine plumage and markings. This is not wholly the case, of course, but it is partially so.—Farmers' Review.

FEEDING.—The results of several feeding experiments, made by the New York Experiment Station, indicate that for laying fowls of smaller breeds, Indian corn or cornmeal can be fed in quite large proportion with a considerable margin in its favor over certain more nitrogenous foods; but that while smaller fowls, even when confined, suffer little serious disadvantage under the ration, larger breeds will not endure for long periods a very large proportion of cornmeal in their feed, and unless at liberty, will do better with a somewhat more nitrogenous ration. For exhibition stock, a highly nitrogenous ration is to be recommended, except perhaps for a short period when extra weight is desired. From the fact of better "condition" attending the nitrogenous ration, and the tendency to have the production of eggs limited to a shorter period, an advantage will doubtless be found in the more nitrogenous and oftener varied ration for breeding stock.

FIBER CULTURE AT THE STATE FAIR.—A special exhibition of fiber culture will be made at the State Fair this fall at Sacramento of flax, ramie and cotton. This promises to be a good display, as ramie plants will be exhibited that are growing in the building at the present time. If any of the readers of the RURAL have samples of flax or fiber plants grown in California, they will be thankfully received by W. H. Murray, the State Superintendent of Ramie Culture, who will have charge of the exhibit. Mr. Murray may be addressed at 810 Castro St., S. F.

Fills the Bill.

Farmers perhaps more than any other class suffer from the charges and dishonesty of middlemen. If the farmer could sell his produce at best market rates and have honest returns made, his profits would be greatly increased. An agency or organization that would carefully supply the farmer with information in advance of his shipment, look out for his produce when it arrives, report to him as to the honesty of firms he may think of dealing with and do his purchasing at the best market rates, would be of almost incalculable benefit. To fill this want, lately a number of reputable San Francisco business men have organized a Farmers' Protective Bureau, with offices in the *Chronicle* building, San Francisco.

A Good Thing for Jackson.

We have learned, upon what we believe to be reliable authority, that the Aspinwall Manufacturing Company, of Three Rivers, Mich., will remove their entire plant to Jackson, Mich., about September 1st, where they have erected new buildings, equipped with the latest improved machinery specially adapted to their business. This old and reliable firm have manufactured potato planters and potato cutters for so many years that their name has become a household word in every farming community, and their customers will be pleased to learn that their plant at Jackson will furnish them with additional and better facilities for turning out their popular machines.

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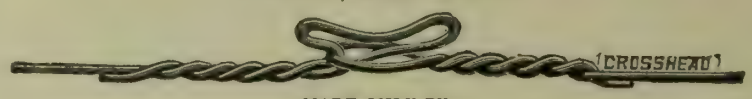

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THE SOUTHER FARM,

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SHEEP

BREEDERS SHOULD SEND a stamp for our new illustrated catalogue of Wool Growers' Supplies and a free copy of the only illustrated Sheep and Wool Journal published. We sell Shepherds' Crooks, Shears, Dockers, Sacks, Twine, Wool Boxes, Bells, Marks and a hundred other articles needed by every sheep owner. Send to-day. C. S. BURCH & CO., 178 Michigan Street, Chicago.

CALIFORNIA If you want to know about California and the Pacific States, send for the PACIFIC RURAL PRESS, the best Illustrated and Leading Farming and Horticultural Weekly of the Far West. Trial, 50c for 3 mos. Two sample copies, 10c. Established 1870. DEWEY PUBLISHING CO. 220 Market St., S. F.

SALE OF CHOICE TROTTING STOCK.

Intending to Retire from the Breeding of Trotters, because I cannot find time to give proper attention to them, I am offering my

STOCK AT AUCTION

At the Salesyard of KILLIP & CO., Corner Van Ness Avenue and Market Street, San Francisco, on

Wednesday, August 10, 1892, at 11 A. M.

KILLIP & CO. will Conduct the Sale and Issue the Catalogues.

AMOMG THE OTHERS TO BE SOLD WILL BE THE FOLLOWING FILLIES:

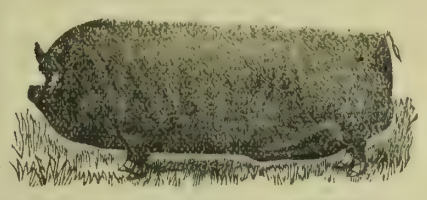
LOOKOUT. Br f, foaled 1890.
- DIRECTOR 2:17. 1989
  - DICTATOR 113.
  - DOLLY, 4 in the 2:30 list.
- ADINA
  - ELECTIONEER 125.
  - ADDIE LEE, 4 in the 2:30 list.

PINOLE— Bl f, foaled 1890.
- NCONDAY 10,000
  - WEDGEWOOD 692, 2:19.
  - NOONTIDE, 2:20¼.
- VALONA
  - NUTWOOD, JR. (by Nutwood 600).
  - LUCY PATCHEN (dam o Jas. Madison, 2:17¾)

BET MADISON Bl f, foaled 1891.
- JAMES MADISON 17,909, 2:17¾
  - ANTEEO.
  - LUCY PATCHEN.
- BETSY TROTWOOD
  - ABBOTSFORD 707, 219½.
  - ALPHA MEDIUM (Dam of Katy S.) 2:25.

☞ The Stock will all be at Salesyard a few days before the sale for examination.

H. I. THORNTON.



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Prize Herd of Southern California.

FIVE FIRST PREMIUMS IN 1891.

PIGS OF ALL AGES FOR SALE.

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MANHATTAN STOCK FOOD.

RED BALL BRAND.

Genuine only with RED BALL brand.

Recommended by Goldsmith, Marvin, Gamble, Wells, Fargo & Co., etc., etc.

It keeps Horses and Cattle healthy. For milch cows; it increases and enriches their milk.

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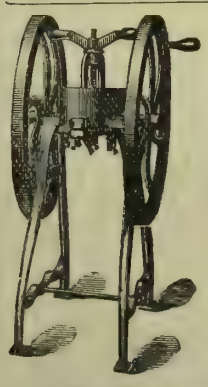


Mann's Green Bone Cutter

FOR POULTRY FOOD.

Patented June 15, 1886; August 20, 1889. Canada Patent, June 12, 1890.

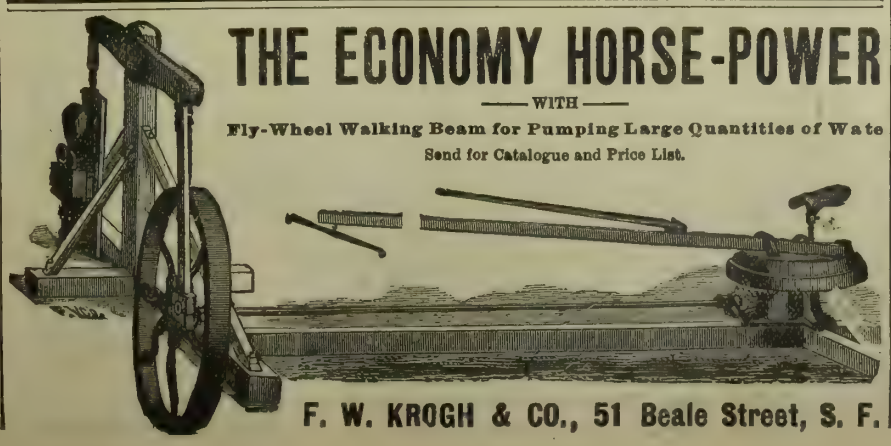
WE WARRANT this machine to cut Dry or Green Bones, meat, gristle and all, by Hand Power, without clog or difficulty, or MONEY REFUNDED.

GREEN CUT BONE WILL DOUBLE THE NUMBER OF EGGS, will make them 25 per cent more fertile, and increase the vigor of the whole flock. COST OF FEEDING MATERIALLY LESSENED.

These Cutters are endorsed by all the leading California poultrymen. Send for a Catalogue describing all sizes of Cutters and containing vaulable information in relation to feeding green cut bones.

PETALUMA INCUBATOR CO.,

Pacific Coast Agents. PETALUMA, CAL.



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Fly-Wheel Walking Beam for Pumping Large Quantities of Wate

Send for Catalogue and Price List.

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WILMANS BROS., - - Proprietors

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Breeders and Importers of Thoroughbred French Merino Sheep,

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LARGEST AMERICAN IMPORTER OF O. D. SHEEP.

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Calves, Yearlings and 2-year-olds For Sale.

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Only three-fourths mile from terminus of the S. F. and San Mateo Electric Road.

DURHAM BULLS.

I have two 2-year-old Shorthorn Bulls, mostly red, in good order, and the price delivered on cars or ship in San Francisco, is $80 each—are thoroughbred but can't pedigree, hence the price.

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MEMBER OF THE ROYAL COLLEGE OF VETERINARY Surgeons, London, England. Late Veterinary Surgeon in the United States Army. Veterinary Contributor to the "Pacific Rural Press." The diseases of all Domestic Animals treated on Scientific Principles. Special attention given to Chronic Lameness and Surgical Operations. 405 BRODERICK ST., SAN FRANCISCO. Calls to the country promptly attended to. Telephone No. 4667.

MONEY "HOW CAN I Make Some?" By using the Pacific Incubator and Brooder, which will hatch any kind of eggs better than a hen. In universal use. Gold Medal wherever exhibited. Thoroughbred Poultry and Poultry Appliances. Send 8 cts. in stamps for 82-page catalogue, with 30 full-sized colored cuts of thoroughbred fowls, to Pacific Incubator Co., 137 Castro St., Oakland, Cal.

— THE —

HALSTED INCUBATOR

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Send Stamp for Circular.

POULTRYMEN, Hens are beginning to stop laying and consequently the price of eggs is advancing. Every one should now feed Wellington's Improved Egg Food regularly if they desire to have eggs to sell when they reach high prices. Get it of any MERCHANT or of Proprietor, B. F. WELLINGTON, 455 Washington St., San Francisco.

DEWEY & CO., PATENT AGENTS, 220 Market St., San Francisco. Elevator, 12 Front St.

WHEN YOU BUY,

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THE BEST!

THE

H. H. H.

Horse Liniment

Is certainly the best preparation of its kind in the market. Ranchers, Stock Raisers and Horse Owners of every description will tell you that it does good work every time.

MESSRS. H. H. MOORE & SONS, Stockton, Cal.—GENTLEMEN: In answer to your inquiry, would state that I used your H. H. H. Liniment on my Holland prize-winning cow, "Lena Menlo," for a wrenched shoulder, and it relieved her very much. She calved the next day, and while still suffering from the sprain gave the largest authenticated quantity of milk ever given on this coast (10½ gallons per day), showing conclusively the great relief received from your remedy. I consider it a necessity in my stables, and when away from home feel perfectly safe, as inexperienced men can do no harm with it, as they can with the more powerful blisters. Respectfully yours, FRANK H. BURKE,
Breeder of Registered Holsteins and Berkshires.
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Best, Purest and Most Effective Insect Powder on the Market.

BY ITS INTELLIGENT USE hotels, restaurants, saloons, stores and offices may be kept free from all troublesome insects. It is now regarded as a necessity in most of the principal hotels in the United States, and wherever it has been introduced it has given complete satisfaction. Owing to an increased production of Pyrethrum flowers, from which this valuable article is made, and their improved facilities for reducing them to powder, the manufacturers have this season made a material reduction in their prices.

Send your orders to the

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S. P. TAYLOR PAPER CO.

Paper Manufacturers and Dealers.

FRUIT PAPER!

Lining Paper of every description for Dried Fruit Boxes.

RAISIN WRAPS AND SWEAT PAPERS.

Manilla and Straw Paper in Rolls and Sheets.

Manufacturers of "Eagle" Paper Bags.

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CALIFORNIA STANDARD FRUIT DRIER

Is one of the most complete inventions for drying Raisins and Prunes by steam in 24 hours—other fruits less time. No sulphur or potash used. Retains all syrup, juice and flavor in original purity. Capacity, dries from 75 lbs green fruit to 20 tons. Send for circulars. CALIFORNIA FRUIT EVAPORATING & M'F'G CO., 347½ S. Spring St., Los Angeles, Cal.

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Whitewash Your Barns and Fences!

WAINWRIGHT'S PUMPS

Do Either Successfully.

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WM. WAINWRIGHT,

No. 5 Spear Street, San Francisco, Cal.

APIARIAN SUPPLIES. Golden Italian Queens. Tested, $2.00 each; untested, $1.00 each. L Hives, $1.90 each. Root's V groove sections, $5.00 per 1000. Dadant's comb foundation, 58c and 65ca pound. Smokers, $1.00 each. Globe veils, $1.00 each, etc. WM. STYAN & SON, San Mateo, Cal.

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Best and Strongest Explosives in the World.

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The only Reliable and Efficient Powder for **Stump and Bank Blasting.** Railroad Contractors and Farmer use no other. **As others IMITATE our Giant Powder, so do they Judson, by manufacturing an inferior article.**

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CAPS and FUSE at Lowest Rates.

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Full Cargoes of Wheat furnished Shippers at short notice.

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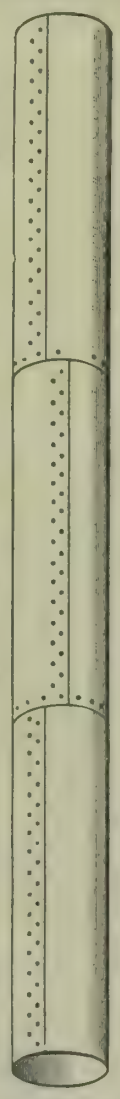

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ALL SIZES, FOR GAS, STEAM AND WATER.

— WE MANUFACTURE —

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ALL SIZES.

For Water Supply, Mining, Irrigating Purposes, Stock Ranches, Etc.

Made in Lengths Desired from 16 to 30 feet.

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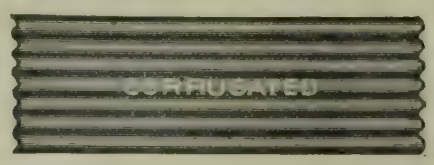
In the manufacture of this Pipe, we use only a **high grade** o annealed Charcoal Iron of great tensile strength.
The weight or thickness of metal used, is graded according to service required, and pressure to which the Pipe will be subjected.

FOR ALL UNDERGROUND PURPOSES, we immerse the Pipe in a bath containing a special mixture of **ASPHALTUM, PITCH and PETROLEUM, at a Temperature of 300° Farenheit.** It thus receives a thorough coating, both inside and outside, rendering it impervious to the alkalies of the earth, rust, etc., and is practically indestructible.



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CALIFORNIA AND OREGON PRODUCE,

Green and Dried Fruits,

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GRAIN AND GENERAL PRODUCE COMMISSION MERCHANTS.

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Hay Presses made by the Celebrated Press Manufacturer,

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WELL SUPPLIES All Kinds, Water, Gas, Oil, Mining, Ditching, Pumping, Wind & Steam Mach'y. Encyclop'dia 25c. The American Well Works, Aurora, Ill.

11-13 S. CANAL ST., CHICAGO, ILL. } Branch Houses.
ELM STREET, DALLAS, TEXAS. }

S. F. MARKET REPORT

Market Review.

SAN FRANCISCO, July 20, 1892.

More activity in farm products was developed the past week than has been exhibited at any time during this year. Under the stimulus of bad harvest weather in England and on the continent, wheat gained in strength on last Thursday and Friday, but with more favorable weather the market relaxed, only to make a decided jump on yesterday upon receipt of confirmed advices of very bad harvest weather abroad. The unfavorable weather, while at this writing only affecting wheat, will tend to give strength to barley, for that, too, as also oats and rye, will be more or less damaged abroad by the unseasonable weather. If signs go for anything, they point to an active export demand, and as there is a large tonnage in port, facilities are at hand to accommodate exporters. The receipt of hay has been largely in excess of the demand, which has caused buyers to hold off and bid lower. As the crop was short in the southern part of the State, and natural pasture or feed very scarce, it looks as if the forced selling is wrong. In dairy produce there is a firmer tone to gilt-edged butter and cheese, and also selected fresh-laid eggs sent in from near-by points. Garden-stuff, outside of two or three kinds, has cleaned up well on each day during the week. Onions have dragged, but choice, well-matured potatoes, suitable for shipping, have moved off readily at firm prices; poor stuff has hung, with concessions in order. There has been a somewhat excited market for prunes, apricots and peaches. The strength and higher prices for the first named are due to advices from abroad pointing to a light crop in the southern part of Europe, and home advices reporting a light crop in Oregon and the crop in this State not turning out as large as it was estimated about 30 days ago. The poor crop at the East of peaches favorably influenced our market for peaches and apricots, with canners buying heavily. Another influence which caused better prices was the slow delivery, owing to cold weather, of contract fruit to canners. The latter, to keep running, have been forced into the market to buy daily supplies, to get which they had to bid well up. There was another factor also, viz., many fruit growers who had contracted their apricots found the fruit to be so small as to create fears that if sent on the contract they would be rejected. Acting on these fears, canners were advised of the situation, who, on sending agents to inspect the orchards, found them to be well grounded, and as a result canners had to buy in other localities, and this buying sent prices up for good stuff, while poor was not affected; but at the close the market is more quiet. Shippers to the East have been liberal buyers also. Pears have strengthened under a good shipping and canning demand. Nectarines are doing better, as are the better varieties of plums. At this writing the peach plum appears to be the favorite in the plum family, with Washington a good second. Nectarines and figs command good figures. There are more of the latter being cured this year. Grapes are in better demand for future delivery. In dried fruit the market is strong at an advance for apricots, prunes, and peaches. Dried grapes and raisins for future delivery are gaining in strength. The market for beans is very strong at an advance for colored, owing to a large export movement to Mexico. The drouth in the latter country destroyed the crop and induced the Government to to take off the duty on the mports. Honey is very strong under short crop advices. Hops are strengthening under confirmed advices of a shortage in this State, a large shortage in New York, and more favorable advices from abroad. Poultry was demoralized and irregular up to yesterday, when a steadier tone set in. Live stock appears easier under freer selling offers. Wool is more quiet. Fall and lamb wools are coming to hand.

Markets by Telegraph.

Foreign Grain Review.

LONDON, July 18.—*Mark Lane Express* says: English wheats are unsettled at generally 2s lower. Foreign wheats are weak in London and firm in Liverpool. Arrivals of American and Indian are in excess of the demand. American red winter sells at 29s 6d, and California native at 34s. Corn is firmer at 21s 6d. Barley is weak. Rye is firm at 33s. Oats quiet; mixed American, 16s 6d. At to-day's market, foreign grains were slightly dearer.

Eastern Wool Markets.

NEW YORK, July 15.—Large quantities of wool are passing into the hands of manufacturers. The markets are now fairly well supplied with all grades, and buyers are able to obtain about what they want. Prices, however, are not in their favor as heretofore. The supply of Montana and Michigan wools is not as large as it generally is at this season. Shearing in these States has been delayed because of wet weather. From other States wool is coming forward quite rapidly. London sales closed on Thursday. About 18,000 bales are said to have been bought for this country. An advance on all wools suitable for this country was maintained to the close. Inferior grades were easier, competition for them not being strong. Manufacturers are buying freely of Australian wools. Sales at New York—25,000 pounds of spring California, 200,000 pounds other domestic and 700,000 foreign, chiefly cheap China. Boston reports exceptionally large sales, largely composed of unwashed—4,613,800 pounds of domestic and 707,000 pounds of foreign, of which over two-thirds was Australian. Philadelphia reports an active market at steady prices and increased offering.

Eastern Dried Fruit Markets.

NEW YORK, July 17.—Raisins—Five thousand boxes comprise the stock in first hands, so the new crop will meet a bare wholesale market. A line of fancy clusters 91 pack, brought $1.75.

Apricots—There were bids of 11¼c for August. From the present outlook, buyers must bend to the coast view of prices for unpeeled peaches.

Eastern Canned Fruit Markets.

NEW YORK, July 17.—Canned fruits continue strong. The possibility of a curtailed output by the advance in Pacific coast prices for canners' fruit heightens the demand for 9lb on ship and makes Eastern prices at the moment somewhat feverish. Baltimore has put Standard peaches up to $1.85 for three-pound boxes.

Light Supply of Fresh Fruit.

NEW YORK, July 17.—The supply of fresh fruit is light. Much that was destined for New York has been diverted to Chicago. This was fortunate for the owners, as the weather here was adverse for ripe stuff. Our few cars made money. Bartlett pears sold quickly. Georgia peaches yet outsell California.

Miscellaneous.

NEW YORK, July 17.—Lima beans are active and firm. Spot or near-by choice, recleaned, $1.80@1.85. Hops—Several prominent State plantings have been held in the interior in the bull interest.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	July.	Aug.	Sept.	Oct.	Nov.
Thursday	6s0¾d	6s06½d	6s06½d	6s06½d	6s07¼d
Friday	6s06½d	6s07½d	6s07¼d	6s07½d	6s07¼d
Saturday	5s06½d	6s07½d	6s07½d	6s08 d	6s07¾d
Monday	6s06½d	6s07¼d	6s07½d	6s07¾d	6s07¾d
Tuesday	6s05¾d	6s06¼d	6s06¾d	6s0.½d	6s07¼d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. O.	P. S.	N. D.	Market for P. S.	Weather.
Thursday	33s3d	34s9d	33s6d	Steadier.	Damp.
Friday	33s3d	34s3d	33s6d	Firmer.	Fair.
Saturday	33s3d	34s3d	33s6d	Held higher.	Warmer.
Monday	33s3d	34s3d	33s6d	Firm.	Fair after rain.
Tuesday	33s3d	34s9d	33s6d	Improving.	Wet & cold.

To-day's cablegram is as follows:

LIVERPOOL, July 20.—Wheat Quiet. California spot lots, 7s ½d; off coast, 33s 3d; just shipped, 34s 9d; nearly due, 33s 9d; cargoes off coast, firmly held, higher prices asked; on passage, no advance established; weather in England, stormy.

New York.

The following shows the closing prices of wheat for the past week:

Day.	July	Aug.	Sept.	Oct.	Nov.
Thursday	141¼	140	140⅛	14 ⅜	....
Friday	140⅛	141¼	140⅞	142½	....
Saturday	....	141½	140⅞	142	....
Monday	....	....	....	....	....
Tuesday	....	142¼	143	....	....

The following are to-days' telegram:

CHICAGO, July 20.—Wheat—79⅜c for July; 78¼c for September and 81⅛c for December.

San Francisco.

WHEAT.

	Seller '92.	Buyer Aug.	Buyer Sept.	Buyer Oct.	Buyer Dec
Thursday, high st.	136¼	....	....	....	141¼
" lowest	135⅜	....	....	....	141
Friday, highest	136⅞	....	....	....	142⅜
" lowest	136⅜	....		....	14 ⅜
Saturday, highest	136⅜	....	139	....	142¼
" lowest	136⅜	....	138¾	....	142
Monday, highest	137½	....	139¼	....	142
" lowest	136½	....	139¼	....	141⅜
Tuesday, highest	138⅝	....	....	....	144
" lowest	137¼	....	....	....	143¼

The following are to-day's recorded sales on Call:

Morning Informal. Buyer December—500 tons, $1.44½; 100, $1.44⅜. Seller 1892, 200 tons, $1.38¾ per ctl. Regular Session. Buyer December—100 tons, $1.44; 300, $1.44¼; 100, $1.43⅞; 100, $1.43½; 1500, $1.43¼; 600, $1.43. Seller 1892, 100 tons, $1.38⅜; 100; $1.38; 200, $1.37½; 4 0, $1.37½; 100, $1.37⅜; 500, $1.37½. Buyer September 200, $1.40½; 100, $1.40½; 200, $1.4 ½ per ctl. Afternoon.—Seller 1892 100 tons, $1.38½; 300, $1.38. Buyer December—100 tons, $1.43⅜; 100, $1.43¼ per ctl.

BARLEY.

	Seller '92.	Buyer Aug.	Buyer Sept.	Buyer Oct.	Buyer Dec.
Thursday, highest	91⅜	....	....	94	96½
" lowest	91½	....	....	94	96½
Friday, highest	91½	....	....	....	96½
" lowest	91¼	....	....	....	96½
Saturday, highest	91¼	....	.	....	....
" lowest	91	....	92½	....	....
Monday, highest	91½	....	92½	....	96⅜
" lowest	90⅜	....	....	....	96
Tuesday, highest	91⅜	....	....	....	....
" lowest	91½	....	....	....	....

The following are to-day's recorded sales on Call:

Informal.—Seller 1892, new—100 tons, 91½c. per ctl. Regular Session.—October—300 tons, 94c. Seller 1892, new—700 tons, 91½c; 200, 91c; 200, 90⅞c; 200, 90¾c. December—100 tons, 95⅝c; 200, 96c per ctl. Afternoon.—Seller 1892, new—200 tons, 90¾c; 300, 90⅝c per ctl.

General Remarks and Statistics.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending July 19, '92, were as follows:

Flour, qr. sks	83,519	Bran, sks	12,230
Wheat, ctls	13,450	Buckwheat "	
Barley, "	75,422	Middlings "	3,265
Rye, "	585	Chicory, bbls	101
Oats, "	1,412	Hops, "	....
Corn, "	455	Wool, "	732
*Butter, "	773	Hay, ton	4,327
do bxs	804	Straw, "	74
do bbls	13	Wine, gals	214,470
do kegs	95	Brandy, "	880
do tubs	11	Raisins, bxs	370
do ½ bxs	182	Honey, cs	10
†Cheese, ctls	1,132	Peanuts, sks	....
do bxs	79	Walnuts "	....
Eggs, doz	20,988	Almonds "	....
do " Eastern	12 060	Mustard "	....
Beans, sks	895	Flax "	1,324
Potatoes, sks	19 117	Popcorn "	....
Onions, "	4,6 0	Broom corn, bbls	....

*Overl'd. 243 ctls. † Overland, — ctls.

From reliable advices up to July 19, the following summary tonnage movement is compiled:

	On the way 1892.	On the way 1891.	In port 1892.	In port 1891.
San Francisco	256,597	326,128	*181,554	79,047
San Diego	22,917	25,000	4,307	.....
San Pedro	4,830	2,525	....	8,474
Oregon	52,309	33,212	26,285	
Puget Sound	26,545	30,337	.....	
Totals	363,198	417,272	212,146	87,521

*Engaged for wheat, 1892, 46,934; 1891, 69,618

Exports by Sea from San Francisco from July 1 to July 14.

	1892-93	1891-92
Wheat, ctls	298,871	412,599
Flour, bbls	23,596	85,647
Barley, ctls	69,823	58,926

Cereals.

According to the official report, the wheat crop in the Bombay Presidency is estimated at 2,536,000 qrs., as against 3,500,000 qrs. last year; the total wheat crop in India this year is not yet officially returned, but is expected to be about 29,000,000 qrs., as against 33,000,000 qrs. in 1891.

Prospects of cereal crops in the middle and western parts of the continent of Europe continue satisfactory, and have generally spoken of improvement. In Hungary, the barley crop is said to be good but rather late. In Germany, the crops are represented to be equal to an average. In France, the harvesting of rye and winter barley has begun, and the colza crop is nearly ready.

The Toledo *Market Report* says the salient points of European advices are a deficient crop in England on a reduced acreage, say of 8,000,000 bushels, and a poor crop of potatoes, and that means always a resort to bread. In France, the crop may be an average one, and that is by no means settled, and, in any event, France will be a free buyer. Beerbohm does not believe in the ability of Russia to export freely, and that opinion coincides with the general fitness of things. The rye crop is believed to promise only a limited yield, and stocks of food in that country must be light. Still, poverty will induce sales as close to the surplus as possible. We expect to see a fair demand for export at fair prices. One element favors prices which did not exist last fall. Ocean freights promise to be lower, because of far less pressure for shipment than last year.

The Chicago *Daily Trade Bulletin* offers the following: "Accepting the general supplies of the United States—crop and surplus on July 1, 1891—as 650,000,000 bushels, the statistical position may be stated as follows: Consumption during the last 12 months, 300,000,000 bushels; seeding, 53,000,000 bushels; exports, 225,000,000 bushels, making a total of 578,000,000 bushels. This would leave an aggregate supply of all wheat in the United States on July 1st about 72,000,000 bushels, or 32,000,000 bushels in excess of one year ago. The supply is about 48,000,000 bushels, outside of the official visible supply. The aggregate supplies in the United States and Canada, in Europe and on passage July 1st were about 132,058,000 bushels, against 147,979,000 bushels one month ago—a decrease of 15,921,000 bushels."

The Salinas *Index* says that J. P. Raymond has returned from his annual tour throughout northern and central California inspecting the grain prospects for this year. Mr. Raymond had made a pretty thorough canvass of this county before he left, and from his own observation and information from producers in whom he had confidence had placed the wheat yield of the county at one-third of a crop and the barley at two-thirds of an average crop. Going north from Salinas, the first point visited was Pajaro valley, where he found a good average crop. In San Benito county there is an unusually large crop of barley. The wheat is not up to the general average. In Santa Clara and Alameda counties the barley, mostly chevalier, looks well. In Contra Costa the crops are fair, although light in the neighborhood of Cornwall. Across Suisun bay, in Solano county, are magnificent crops of wheat. Mr. Raymond went up the west side of the Sacramento, through Yolo, Glenn, Colusa and Tehama counties, as far as Red Bluff, and found magnificent crops all the way. Coming down on the east side of the Sacramento, through Tehama, Butte, Sutter and Sacramento counties, he found the wheat not so good as on the west side, but a fair crop. In conversation with parties from the northern coast of California, he learned that the barley crop in that section would be very considerably more than it was last year. Mr. Raymond's estimate, based on his own observation and from information gained from others, is that the barley crop will be considerably greater than it was last year, some putting it at one-third more, and that the wheat crop of the State will exceed the aggregate of last year. Mr. Raymond attributes the excellence of the crops in Solano county and on the west side of the Sacramento river to the practice of summer-fallowing adopted by the producers of those localities. In the Montezuma hills in Solano county, where to his personal knowledge the land 15 years ago was considered only fit for grazing purposes, he saw the best wheat on the whole trip. This land is not summer-fallowed in the sense of allowing it to rest every other year, but it is thoroughly cultivated on the off years and no weeds or anything allowed to grow upon it, to pump from the soil the moisture needed for the next year's crop. And Mr. Raymond is confident that the arid lands of this county, if treated in this manner, would yield a certain crop every other year greater in amount than is now secured from two years' cropping under present methods.

Acreage and Production of Wheat.

The following table exhibits the estimated acreage and prospective yield of wheat in the United states for 1892, compared with the reported yield in 1891:

STATES.	1892. Est'mat'd Acreage.	1892. Estimated Yield, bu.	1891. Yield, Bushels.
WINTER.			
Ohio	2,715,800	34,981,000	45,531,000
Michigan	1,590,600	22,268,000	30,205,000
Indiana	2,888,300	37,2 9,000	5[illegible],8 7,000
Illinois	1,906,9 0	27,459,000	35, 25,000
Missouri	1,645,100	23,492,000	25,732,000
Kansas	3,409,000	56,822 0 0	54,86[illegible],000
Kentucky	1,048,200	11,635,000	13,181,000
Tennessee	1,224,500	9,784,000	11,626,000
Connecticut	1,8 0	27,000	31,000
New York	626,900	10,244,000	10,683,000
New Jersey	138,800	1,885,000	2,12[illegible],000
Pennsylvania	1,324,000	17,053,000	20,864,000
Delaware	100,500	1,182,000	1 250,000
Maryland	535,100	6,891,000	8,107,000
Virginia	841,[illegible]00	7,490,000	7,651,000
North Carolina	775,500	6,017,000	4,975,000
South Carolina	198 400	1,571,000	992,000
Georgia	331,400	2,297,000	2,3[illegible]3,000
Alabama	292,500	1,801,00	2,251 000
Mississippi	63,200	537,000	483,000
Texas	573,800	6,197,000	6,435,000
Arkansas	239 800	2,254,000	2,236,000
West Virginia	332,000	3,119,000	3 423 000
California	3,012,0 0	42,168,000	36,595,000
Oregon	690,000	11,385,000	13,149,000
Total	26,564,000	345,857,000	392,495,000
SPRING.			
Minnesota	3,206,800	41,703,000	55,332,000
Wisconsin	898,000	10,865,000	14,043,000
Iowa	1,730,900	21, 82 000	27,[illegible]86,000
Nebraska	1,299,700	15 601 000	18,080,000
North Dakota	2,488,200	31,331,000	22,[illegible]5,000
South Dakota	2,30 ,700	30,679,000	29,714,000
Colorado	112,[illegible]00	2,464,000	2,037,000
Washington	788,800	13,409,000	12,216,000
Nevada	2 ,300	343,000	372,000
Idaho	91 400	1 645,000	1,811,000
Montana	97,400	1,832,000	1,856 000
Wyoming	3,5 0	100,000	110,000
New Mexico	94,200	1,[illegible]47,000	1,037,000
Utah	142,20	2,658,000	2,393,000
Arizona	27,800	480,000	395,000
Maine	41,000	656,000	669,000
New Hampshire	8 800	135, 00	148,000
Vermont	19,400	342,000	344,000
Total	13,369,100	176,552,000	219,285,000
Grand total	39,933,100	522,409,000	611,780,000

Liverpool cables report as follows: Imports into the United Kingdom for the week ending July 19th: Flour, bbls., 248,000; wheat, qrs., 463,000. Amount of wheat and flour on passage July 19th: To United Kingdom, 2,073,000 qrs.; to continent, 801,000 qrs. Farmers' delivery of wheat for week ending July 16th, 38,701 qrs; average price, 22s 1d.

As noted in the introductory of this department, the local wheat strengthened at the commencement of the week, shaded off again, only to make a decided jump on yesterday. The upmove verifies our position. At this writing, it looks as if the market will do still better. This opinion is based on the statistical and weather influences heretofore given. Wheat is nearly always good property when values of No. 1 white shipping are at around $1.40, but when above that figure, it is risky.

The strong bear pressure heretofore noted is still felt in barley, but, as stated in the introduction to this department, the unfavorable weather abroad will cause free buying with us. This buying is even now being quietly done. Buyers are acting in such a way as not to excite holders. The receipts have been very heavy, but the more choice grades that have come to hand were for exporting.

Oats have gained in strength, with an advance established, owing to the demand being in excess of receipts, which has necessitated withdrawals from warehouses.

Corn is very strong at an advance. The strength to the market is due to light receipts and a good export and home demand, combined with supplies being under better control.

Rye has strengthened with an advance established under a freer export inquiry, due to more unfavorable weather abroad.

Cables received to-day from London report the weather clearing, which caused a strong selling pressure of futures with us; but spot wheat is still scarce and high.

Feedstuff.

The market for ground feed is very strong, with an advancing tendency. The demand is steadily enlarging.

The receipts of hay have been very heavy, largely in excess of current requirements. With the heavy deliveries, buyers became more offish and required concessions to induce buying. The quality that is coming in is fair to choice, with a good sprinkling of poor stuff. Judging from our exchanges, and also from the remarks of those in trade, we think there will be a good demand from the southern part of the State. The crop was short while feed is scarce.

Dairy Produce.

New York mail advices to July 11th report as follows: The receipts of butter to date are way behind last year—nearly 140,000 packages since May 1st—and this together with the fact that Western refrigerators have no more stock, if as much, as at this time last year, and want more goods. Comparatively little has been put away here. Other Eastern markets are short of the quantity usually held at this season, and will be active competitors until filled up. This tends to impart confidence; to many holders who claim prices must be kept close to present basis to continue to attract shipments this way.

Gilt-edged butter is getting scarcer, which causes some of the more favorably considered brands to command a slight advance. The market appears to be also cleaning up better for choice grades, but the poorer stuff is still slow and in buyers' favor.

The receipts of Eastern cheese are very large, which unfavorably affect our market. While it does not send prices down, it keeps them from advancing. The demand is reported to be fair.

There is a very wide range in eggs. Store eggs that have been kept on hand, and were shaky, had to be sold at the best prices obtainable, and as the Chinese and a few of the bakers are the only buyers of poor stock, 11 cents had, in several instances, to be accepted. The poor stock is about closed out now, and if Eastern do not come in heavily, the market should appreciate slightly.

Vegetables.

In garden stuff the market shows several changes. Young and tender string beans and peas command an advance on quotations. Summer squash is more or less demoralized. Egg plants and Chili peppers are selling lower. Garlic is hard to sell. Green corn is coming in more freely; and as supplies increase, prices shade off. River tomatoes are still scarce and sold in large boxes up to $2 50 per box on the wharf. Cucumbers are in liberal supply and in buyers' favor.

Onions are in heavy receipt, with prices favoring buyers. Red, on the wharf, sell at 15 to 25 cts. and silverskin at 40 to 50 cts.

As stated in the introductory to this department, there is a good demand for choice good-keeping potatoes, but for poor keepers the inquiry is slow, with prices favoring buyers.

Potatoes were lower to-day under free receipts and a light demand.

Fruit.

Cull tree fruit continues to be sent to this market, and for which low prices have to be accepted. These low prices we do not quote. Apples continue poor. The size is small. It looks as if growers are marketing them before the fruit is too far gone with worms. Choice large-sized apples will sell at an advance on our outside quotations. In the introductory (first column) to this department we report the situation on the local market at some length.

Berries have held to steady prices throughout the week.

For dried fruit of the 1892 pack a large inquiry has developed the past week, causing holders to entertain higher views. Dried apricots are now quoted at 10@13c f. o. b. in sacks; the four sizes of prunes at 9@10c; peaches at 8@10c for bleached unpeeled.

Raisins in the sweat are, as a rule, quoted at around 4½c, although some growers name a higher figure. More care will be exercised in selecting, curing and packing this season.

Canners, driers and shippers quote the following ranges for green fruit: Apricots, 1½@2¼c ℔ lb; peaches, cling and freestone, 1¾@2¼c; pears, 1¾@2¼c; prunes, 2@2½c; nectarines, 1¼@1¾c.

To-day the receipts of fruit were large and prices generally lower. Warmer weather hastened the ripening.

Live Stock.

Under a holding back of shipments bullocks and mutton sheep appreciated, but toward the close they are easier with more offering. Lambs and dairy fed calves are scarce and command full prices. Hogs are in fair request at unchanged quotations.

Miscellaneous.

Poultry was completely demoralized on last Friday and Saturday. Continued heavy receipts stocked retail dealers up, and to sell, commission merchants had to accept the best offers made. With lighter receipts on Monday and yesterday the market for hens and roosters is about $1 per dozen higher. Turkeys, geese and ducks did not change much.

For new crop hops buyers are bidding more money. Eastern mail advices continue to report a strong bear pressure, and this too in the face of poor crop prospects in this State and at the East.

Lamb and fall wools are coming in. The market is reported slow for all kinds. The clip of spring wool is well cleaned up for the time of the year.

Beans have moved off more freely with colored selling for more money. The influences on the market are noted in the introductory to this department.

Honey continues to command attention owing to the small crop on this Coast and the promise of a light crop East.

Hog product is in good demand at firm prices.

Live Stock.

BEEF.		MUTTON.	
Stall fed	5½@—	Wethers	8 @—
Grass fed, extra	5½@—	Ewes	7½@—
First quality	4¾@—	Do Spring	9 @—
Second quality	4 @—	HOGS.	
Third quality	3½@—	Light, ℔ lb, cents	5¾@—
Bulls and thin Cows	2 @—	Medium	5¾@—
VEAL.		Heavy	5 @—
Range, heavy	4 @—	Soft	4¾@—
Do light	5 @—	Feeders	3½@—
Dairy	6 @—	Stock Hogs	3½@—

Twine and Baling Rope.

BALE ROPE.		TWINE.	
Sisal, 3 and 4 yarns	9½	Pure Manila Hop, in balls, tarred	12
Do, 2 yarns, light	10	Do, Grape-Vine, in balls or coils	12½
Duplex, 3 yarns	9½	Do, Spring	16
Manila, mixed, 3 yarns, heavy	11	Duplex Hop, in balls, tar'd	10
Pure Manila, 3 and 4 yarns	12½	Do, Grape-Vine, in balls or coils	11
Do, 2 yarns, light	13		

Continued on next page.

General Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, July 20, 1892.

BEANS AND PEAS.			
Bayo, ctl	2 50	@	2 75
Butter	2 50	@	3 05
Pea	2 25	@	2 50
Red	2 50	@	2 60
Pink	2 50	@	2 60
Small White	2 00	@	2 45
Large White	2 00	@	2 30
Lima	2 50	@	2 80
Fld Peas, blkeye	3 00	@	3 30
Do green	1 50	@	2 75
Do Niles	1 30	@	1 40
Split	4 50	@	5 50
BUTTER.			
Cal. Poor to fair, lb	15	@	—
Do good to choice	17	@	—
Do Gilt edged	—	@	20
Do Creamery rolls	—	@	20
Do do Gilt edge	—	@	21
Eastern	—	@	—
CHEESE			
Cal. choice cream	8	@	—
Do fair to good	7	@	—
Do gilt edged	—	@	9
Do skim	5	@	6
Young America	—	@	10
EGGS.			
Cal. "as is," doz.	15	@	17
Do candled	18	@	20
Do choice	21	@	23
Do fresh laid	24	@	25
Do do selected	—	@	26
Eastern "as is"	14	@	16
Do candled	17	@	18
Do selected	19	@	21

Outside prices for selected large eggs and inside prices for mixed sizes—small eggs and hard to sell.

FEED			
Bran, ton	18 00	@	19 00
Feedmeal	17 00	@	18 00
Gr'd Barley	20 50	@	22 50
Middlings	20 00	@	21 50
Oil Cake Meal	—	@	25 00
Manhattan Food ℔ cwt.	7 50		
HAY.			
Wheat, per ton	9 00	@	—
Do choice	—	@	12 50
Wheat and Oats	8 50	@	11 00
Wild Oats	8 00	@	11 00
Cultivated do	7 00	@	10 00
Barley	6 00	@	9 00
Alfalfa	7 00	@	9 00
Straw, bale	40	@	50
GRAIN, ETC.			
Barley, feed, ctl	88½	@	93½
Do Choice	95	@	—
Do Brewing	1 00	@	—
Do do Choice	1 05	@	—
Do do Gilt edge	1 10	@	—
Do Chevalier	1 05	@	1 40
Do do Gilt edge	1 45	@	1 50
Buckwheat	—	@	—
Corn, White	1 30	@	—
Yellow, large	1 25	@	—
Do small	1 30	@	—
Oats, milling	1 50	@	—
Feed, Choice	1 45	@	—
Do good	1 37½	@	—
Do fair	1 33½	@	—
Surprise	1 65	@	—
Black Cal	—	@	—
Do Oregon	1 32½	@	—
Gray	1 32½	@	
Rye	1 20	@	—
Wheat, milling.			
Gilt edged	1 48½	@	—
Do Choice	1 46½	@	—
Do fair to good	1 42½	@	—
Shipping, cho'ce	1 40	@	—
Do good	1 37½	@	—
Do fair	1 35	@	—
Common	1 30	@	—
Sonora	1 33½	@	1 45
HOPS.			
1891 Choice to Ex.	20	@	—
Fair to Good	18	@	—
FLOUR.			
Extra, City Mills	4 65	@	4 75
Do Country Mills	4 50	@	4 75
Superfine	2 75	@	3 10
NUTS—JOBBING.			
Walnuts, Cal. lb	4	@	—
Do Choice	6	@	—
Do paper shell	7	@	—
Almonds, sft shl.	10	@	—
Paper shell	12	@	—
Hard Shell	6	@	7½
Brazil	6½	@	8
Pecans small	11	@	13
Do large	14½	@	16
Peanuts	1½	@	3
Filberts	10½	@	12½
Hickory	7	@	8
Chestnuts	11½	@	16
ONIONS			
Silverskin	40	@	50
POTATOES.			
Early Rose, ctl.	50	@	75
Do do in boxes	65	@	1 00
Peerless	60	@	75
Do in boxes	65	@	1 00
Garnet Chilies	60	@	85
Burbank Seedlings	60	@	75
Do do in boxes	75	@	1 00
POULTRY.			
Hens, doz	6 50	@	8 50
Roosters, old	6 00	@	7 50
Do young	5 00	@	7 50
Broilers, small	2 00	@	3 50
Do large	3 50	@	4 00
Fryers	4 50	@	5 50
Ducks	4 00	@	4 75
do, large	5 00	@	5 50
do, extra large	6 00	@	—
Geese, pair	1 25	@	1 75
Goslings	—	@	—
Turkeys, Gobl'r.	18	@	20
Turkeys, Hens	16	@	18
Manhattan Egg Food ℔ cwt.	11 50	@	—
PROVISIONS.			
Cal. Bacon, he'vy, lb	10½	@	—
Medium	11½	@	—
Light	13	@	—
Lard	9½	@	12
Cal. Sm'k'd Beef	11½	@	—
Hams, Cal salt'd	11½	@	—
do Eastern	14½	@	—
HEMP.			
Alfalfa	9	@	12½
Clover, Red	14	@	15
White	20	@	—
Flaxseed	2 00	@	2 25
Hemp	3½	@	4
Mustard, yellow	3½	@	4
do Brown	3	@	3½
WOOL.			
SPRING, 1892			
Humb't & Men'cino	17	@	21
Sac'to valley	16	@	—
S Joaquin valley	11	@	16
Cala's & F'th'l.	16	@	21
Oregon Eastern	12½	@	19
do valley	18	@	23
So'n Coast, def.	10	@	12
Nevada (State)	15	@	19
HONEY.—1892 CROP.			
WhiteComb, 2-lb	8	@	11
do do 1-lb frame	10	@	13
White extract'd	6½	@	7
Amber do	5½	@	6
Beeswax, lb	25	@	28

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, July 20, 1892.

Limes, Mex	2 50	@	4 00
Do Cal	—	@	—
Lemons, box	1 50	@	4 00
Do Sicily	5 00	@	6 00
Oranges, Seedlings	1 25	@	2 25
Do Navels	2 50	@	4 50
Oranges frosted and poor sell at a decline of $1@$1 50 per box on the above quotations.			
Strawberries, per chest— Longworth	7 00	@	8 00
Sharpless	4 50	@	6 00
Raspberries, ch.	4 50	@	6 00
Peaches, box	—	@	—
Do Crawford	50	@	75
Do Hale's Early	50	@	75
Bl'kberries ℔ ch	3 50	@	6 00
Figs, blk box	2 00	@	2 50
Do White do	1 00	@	1 25
Apples, Bell Flower	65	@	1 00
Do Red Astrachan	75	@	1 25
Crabapples	75	@	1 00
Canteloupes, pr crate	2 50	@	4 00
Melons, pr doz	1 50	@	2 50
Grapes, pr bx— Do Sweetwater	75	@	1 10
Do Black	85	@	1 25
Prunes, Tragedy	50	@	1 00
Do German	60	@	1 00
Plums, Duane's Purple	65	@	75
Do Peach	65	@	90
Do Wash	55	@	75
Pears	50	@	75
Pears, Dearbo'ns Seedling	50	@	1 00
Do Bartlett	75	@	1 25
Apricots, pr box	40	@	65
do, per lb	1½	@	2½
Beets, sk	—	@	1 00
Carrots, sk	50	@	—
Okra, dry, lb	15	@	—
Do green	8	@	10
Parsnips, ctl	—	@	1 25
Peppers, dry, lb	10	@	—
Do grn Chili, bx	50	@	75
Do do Bells	1 00	@	1 25
Turnips, ctl	50	@	—
Cabbage, 100 lbs	40	@	50
Garlic, lb	1½	@	3
Squash, Sum, bx	20	@	30
Tomatoes, box	40	@	50
Do River lrg bx	1 50	@	2 00
Peas, green, sk	50	@	1 75
String Beans	2	@	4
Cucumbers, box	50	@	75
do Pickle	75	@	85
Mushrooms	30	@	50
Egg Plant, bx	1 50	@	1 75
Green Corn, sk	—	@	—
Do sweet ℔ sack	50	@	75
Do swt. Bay box	1 00	@	1 50

Grain and Wool Bags.

Calcutta, spot	7	@	7½
Wool Bags	36	@	38

Wine.

Red and White Wine from bay counties, vintage of 1891, per gal	10	@	15

Auction Sales of California Fruits

At New York.

July 15.—Two carloads: Bartlett Pears sold for $2.75@3.37; Tragedy Prunes, $3.62@4; Purple Duane Plums, $2.25@3.37; Hale's Early Peaches, $1.20@1.60; Peach plums, $2.37@3 37; German Prunes, $3.37; Moorpark Apricots, $2.70. Gross sale of two cars, $4095.

Three carloads: Hale's Early Peaches, $1.05@1.50 ℔ box; Bartlett Pears, $3.50@4; Peach Plums, $2.37@2.75 ℔ half crate; Purple Duane Plums, $2 37½@2.50; Washington Plums, $2.75; Bulgarian Plums, $2.10; Tragedy Prunes, $3.12½@4.25; Peach Apricots, $2.50. Car sold gross for $2153. Goodell refrigerator No. 16,188.

July 15.—One carload: Bartlett Pears at $3.15 to $3.70 per box.

July 16.—Ventilated car No. 36,803, shipped by slow freight, $1219 gross. Bartlett Pears sold for $2.50@3. Refrigerator car, No. 16,100, sold for $2137 gross. Hale's Early Peaches, 80c@$1.40; Bartlett Pears, $3 12@3.25; Purple Duane Plums, $1.65@2.55; Peach Plums, $3; Bulgarian Prunes, $1 90; Cherry Plums, $1.05; Tragedy Prunes, $2.35@3.87; Peach Apricots, $3.05.

July 18.—Three carloads. Bartlett Pears, $2.50@3, average, $2.60; P. D. Plums, $2.37@3 62, average, $2.71; Peach Plums, $3.75; Washington Plums, $3.62; Tragedy Prunes, $2.50@4.12, average, $3.60; German Prunes, $2.62@3.37, average, $2.75; Bulgarian Prunes, $1.50; Hale's Early Peaches, $1 09@$1.40, average, $1.35; Crawford Peaches, $1.40@1.70, average, $1.56; Yellow Peaches, $1.55; Apricots, $1.70.

July 18.—Two carloads. Peach Plums, $2.60@2.90; Alexander Peaches, $1.55; Bartlett Pears, small, $2.40; Royal Apricots, 75c@$1.70.

July 19.—One carload Early Crawford Peaches, $1.05@2.05; Bartlett Pears, $2.25; Peach Plums, $2.20@3; Apricots, $1.30.

At Chicago.

July 14.—Three carloads: Peaches, $1.25@2.25; Foster Peaches, $2 35; Hale's Early Peaches, 80c@$1 60; Crawford Peaches, $2.05@2.55; St. John Peaches, $1.50@2.25; Grapes, $2.30; Figs, $1.15@1.40; Nectarines, $1 05@1.30; Apricots, $1.20@1 60; Bartlett Pears, $3.45; half boxes Pears, $1.35@$1 60; Plums, $2 55@3.05; Purple Duane Plums, $3.15; Tragedy Prunes, $2.60@3.15; Royal Native Plums, $2.50; Peach Plums, $3.05@3.25.

July 14.—Two carloads: Bartlett Pears averaged $3.38 ℔ box; Alexander Peaches, $1.80; Peach Plums, $2 85; Royal Apricots $1.05@1.55.

July 15.—One car Bartlett Pears averaged $3.40 ℔ box; Peach Plums, $2.75 to $3; Royal Native Plums, $2.50; Early Crawford Peaches, $1.55 to $2.25; Strawberry Peaches, $1.25 to $1.70; St. John Peaches, $1 55 to $1.85; Hale's Early Peaches, $1.30 to $1.70; Alexander Peaches, $1.50; Peach Apricots, $1 30; Royal Apricots, $1.10 to $1.70; Moorpark Apricots, $1.25 to $1.55.

July 15.—Four carloads: Bartlett Pears, $3.05@3 45; Peach Plums, $2.80@3.10; Purple Duane Plums, $2.32@2 75; Apricots, 90c@$1.60; Peaches, $1.20@1.50; Crawford Peaches, $2.10@2.30; Hale'e Early Peaches, $1.25@2; St. John Peaches, $1.55; German Prunes, $2.95@3 35; Tragedy Prunes, $1.80@3.55; Washington Plums, $2.30@2.50; Royal Native Plums, $2.50; Nectarines, $1.70; Beurre Gifford Pears, $1.85 ℔ crate.

July 16.—Two carloads: Bartlett Pears, $3.20@3.25; Crawford Peaches, $1.75@1.95; Hale's Early Peaches, $1 55.

July 18.—Three carloads. Bartlett Pears, $2.90@3.25; Clapp's, $2.80; Early Pears, $2.60; German Prunes, $2.90@3; Crawford Peaches, $1.35@1.70; Hale's Early Peaches, 90c@1.50; Nectarines, $1.20; Peach Plums, $3.20; Tragedy, $2.60@3.35; Blood Plums, $2.90; Washington Plums, $2.10@2.90; P. D. Plums, $2.10@2.90; Peach Plums, $1.05@1.50; Japan Plums, $3.15; Bulgarian Prunes, $2.70; Royal Native Plums, $2.10@2 40; Prunes, $2 85; Apricots, $1.25@1.40; St. John Peaches, $1 45@2. Grapes, $3 35.

July 19.—Four carloads Bartlett Pears sold at $3 50@3.15; Early Crawford Peaches, $1.35@1.80; McKevitt's Early Peaches, $1.25@1.45; Hale's Early Peaches, 95c@$1.15; Strawberry Peaches, $1.05; Royal Apricots, $1.45@1.80; St. John Peaches, $1.25@1 35; Tragedy Prunes, $3.05@3.65; German Prunes, $2.80@2.85; Green Gage Plums, $1.90; Purple Duane Plums, $3 70@2.85; Fontainbleau Grapes, half crates, $3.55@3.70; Royal Native Plums, half crates. $2.60; Peach Plums, boxes, $2.15; half crates, $2.95@3.05; Clapp's Favorite Pears, $2.45.

At Boston.

July 15.—Two carloads: Peach Plums, $3.35@3.50; Tragedy Prunes, $4.10; Bartlett Pears, $2.65@3.25; Hale's Early Peaches, $1.15@1 25; Royal Apricots, $1.10; Peach Apricots, $1.15@1 25.

July 18.—One carload. Apricots, $1.37; Alexander Peaches, $1.21; Hale's Early Peaches, $1.14; St. John Peaches, $1.23; Strawberry Cling, $1.22; McKevitt's Early, $1.05; Tragedy, $4.83; Peach Plums, $4.03; Royal Native Plums, $2.50; St. Catherine Plums, $1.89; Figs, 90c.

July 18.—One carload. Bartlett Pears to-day at $3.55@3 75 ℔ box.

At Minneapolis.

July 14.—Refrigerator car No. 16,292: Peaches, $1.30@1.60; Apricots, $1.25@1.50; Royal Native Plums, $2.15; Peach Plums, $2.85.

July 19.—One carload Bartlett Pears, $3.05@3.15; Purple Duane Plums, $2.35@3.50; Tragedy Prunes, $2.40@2.50.

At Omaha.

July 18.—Two carloads. Pears, $2.75@3; Peaches, $1.25@1.50; in crates, $1.50@1.75; Apricots, $1.25@1.50; Plums, $2@2.25.

Carbolineum Avenarius.

The Most Efficient Wood Preserver.

A simple and cheap composition, thoroughly reliable as a preservative for wood and easily applied, which now for over 12 years has been successfully subjected to the most severe tests in all parts of Europe, and has also for a considerable period been used in America, Africa, Asia and the Colonies. Its excellent properties have everywhere given the greatest satisfaction, and the article may therefore now claim general recognition.

This important invention, commercially known as CARBOLINEUM AVENARIUS, is an antiseptic (disinfecting) preparation for impregnating and coating wood; it protects by its preserving and disinfecting properties all kinds of wood from decay, fungus and rot, keeping off, at the same time, its numerous enemies, such as insects and all sorts of vermin. It is more efficacious than all other preparations known hitherto, such as paint, tar, etc., etc., and the various nostrums introduced to the public as preventives against the formation of fungus. It is at the same time cheaper and by far more durable than any other substance. Carbolineum Avenarius stands preeminent as the great preserver not only of wood, but also of stone (nitrous exudations) exposed to damp; it also preserves ship's tackle and other articles, as may be seen from the various testimonials. The application of this antiseptic preparation is most simple and may be performed by any one, either by means of an iron-bound brush or by dipping the wood into the fluid, and the impregnation will be all the more effective if the preparation has been slightly heated previously. One of the characteristics and essential advantages of Carbolineum Avenarius is its ready penetration into the wood, whilst all substances hitherto employed only covered the surface, closed up the pores, and consequently accelerated the decay of the wood whenever the same was not sufficiently dry. Carbolineum Avenarius is not inflammable and does not contain poisonous ingredients; applied either on dry or on green wood it will give to the same a pleasant nut-brown color. It may be stored in the original barrels, or in any other suitable vessel, for an indefinite period, if sufficiently protected, without the least risk of deterioration. One gallon of Carbolineum Avenarius will cover a surface of about 300 square feet, at less cost than any other material, and at only one-sixth of the cost of oil paints, which it far surpasses by its durability; whilst it is even superior to tar as being of a more liquid nature, it is absorbed more readily by the wood, thereby being more effective and considerably cheaper.

Numerous testimonials from all sources absolutely leave no doubt in the mind of an impartial observer as to the sterling and unsurpassed properties of this composition, which is now supplied from three large factories in daily increasing quantities.

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5 lbs dry Granulated Sugar, med. fine	25
1 lb Smith's pure Java Coffee	30
½ lb Nob Hill mixed Tea, best	25
4 lbs No. 1 extra choice table Rice	25
8 lbs No. 1 small white baking Beans	25
5 lbs Tapioca or Sago	25
3 packages Corn Starch	20
1 can Epps's or Baker's Cocoa	20
1 roll best table Butter	40
1 dozen fresh ranch Eggs	25
1-lb. frame new comb Honey	10
1 gallon "S. C. S." Golden Drips	35
1 bottle Lemon or Vanilla Extract	10
2-lb can Corned Beef, key opener	15
1 can "S. C. S." Lemon Sugar, fine	15
1 bot. "S. C. S." plain or mixed Pickles	15
1 bot. Tomato Catsup or French Mustard	10
2 cans choice Tomatoes	15
1 can American Sardines	06
2 lbs good Raisins	10
2 lbs best Currants	15
1 lb Lemon or Orange Peel	15
1 can pure Pepper, Mustard, or Ginger	12
10-lb bag table Salt	10
½ gross Empire Matches	10
1 pot Scrub, Chinese	02
5 lbs Washing Soda	10
1 lb Baking Soda	05
1 lb Smith's powdered Borax	12
2 bars soap, White Rose	08
Total,	$5 00

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FOR THE HALF YEAR ENDING JUNE 30, 1892, A dividend has been declared at the rate of five and one-tenth (5 1-10) per cent. per annum on Term Deposits, and four and one-quarter (4¼) per cent. per annum on Ordinary Deposits, payable on and after FRIDAY, July 1, 1892. GEO. TOURNY, Secretary

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E. P. HEALD, President.

C. S. HALEY, Secretary.

SEMI-ANNUAL STATEMENT

OF THE

GRANGERS' BANK

OF CALIFORNIA,

Amount of Capital actually paid in U. S. Gold Coin, Surplus paid up and Reserve Fund..... $901,643 23

STATE OF CALIFORNIA }
City and County of San Francisco. }

A. D. Logan and A. Montpellier being each duly sworn, severally depose and say that they are respectively the President and Cashier of the Grangers' Bank of California, above mentioned, and that the foregoing statement is true.

(Signed) A. D. LOGAN, President,
(Signed) A. MONTPELLIER, Cashier.

Subscribed and sworn to before me this 12th day of July, 1892.

(Signed) JAMES L. KING, Notary Public.

SEMI-ANNUAL STATEMENT

SHOWING THE ACTUAL CONDITION OF THE

GRANGERS' BANK OF CALIFORNIA,

AND THE VALUE OF ITS ASSETS AND LIABILITIES

At the Close of Business June 30, 1892, viz:

ASSETS:

Loans on wheat, real estate and other securities	$1,501,958 02
Real estate	144,698 93
Office furniture, fixtures and safe	6,075 00
Cash on hand	101,050 22
Total	$1,753,082 17

And said assets are situated in the following counties in the State of California, to-wit: Alameda, Butte, Contra Costa, Colusa, Fresno, Merced, Monterey, Placer, Stanislaus, Sutter, Solano, City and County of San Francisco, Tehama, Tulare, Yuba and Yolo.

LIABILITIES.

Capital stock paid in U. S. Gold Coin	$800,000 00
Surplus paid up and reserve fund	101,643 23
Due depositors, banks and bankers	814,053 87
Interest	37,385 07
Total	$1,753,082 17

STATE OF CALIFORNIA }
City and County of San Francisco. }

A. D. Logan and A. Montpellier, being each duly sworn, severally depose and say that they are respectively the President and Cashier of the Grangers' Bank of California, above mentioned, and that the foregoing statement is true.

(Signed) A. D. LOGAN, President,
(Signed) A. MONTPELLIER, Cashier.

Subscribed and sworn to before me this 12th day of July, 1892.

(Signed JAMES L. KING, Notary Public.

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TIMOTHY HOPKINS.

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GRAPE VINES.

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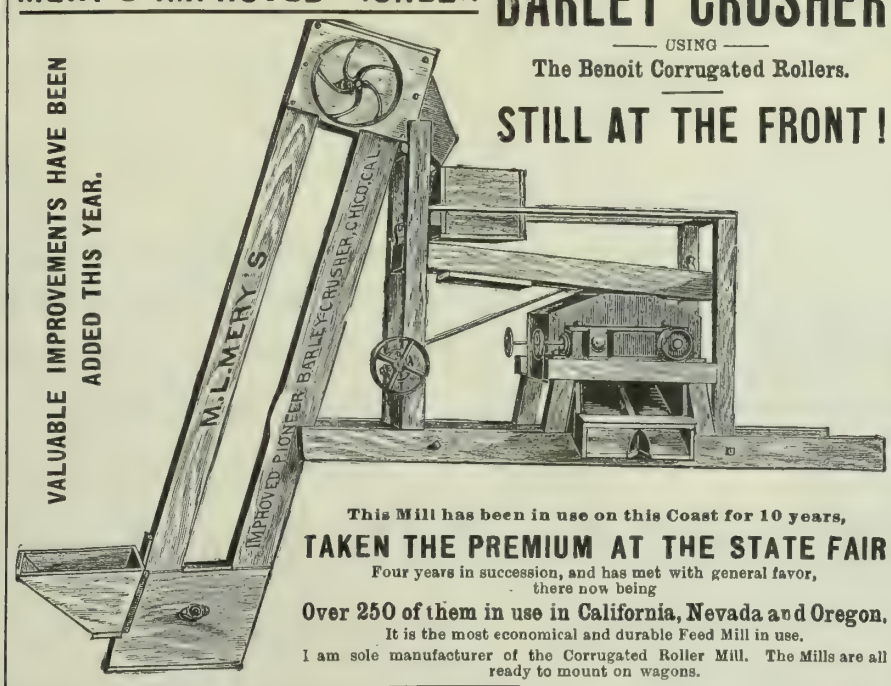

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Over 250 of them in use in California, Nevada and Oregon.

It is the most economical and durable Feed Mill in use.

I am sole manufacturer of the Corrugated Roller Mill. The Mills are all ready to mount on wagons.

GRAINLAND, BUTTE CO., CAL., June 9, 1887.

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F. E. REAM,
JNO. P. SUTTON.

DURHAM, May 21, 1887.

MR. M. L. MERY—Dear Sir: In reply to yours of the 19th, would say that I crushed from two to two and a half tons per hour, but could crush three and a half tons if my elevators were large enough to carry the barley from the machine. The No. 1 machine I used at Gridley was run on a sack a minute, and if we got behind we could run through five tons an hour and do good work. The machine I use here is a No. 2. Yours,

WM. M. TAYLOR.

I thank the public for their kind patronage received thus far, and hope for a continuance of the same.

M. L. MERY, Chico Iron Works, Chico, Cal.

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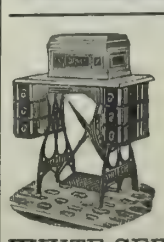

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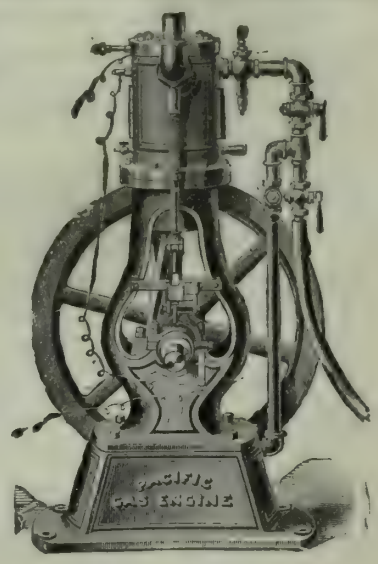

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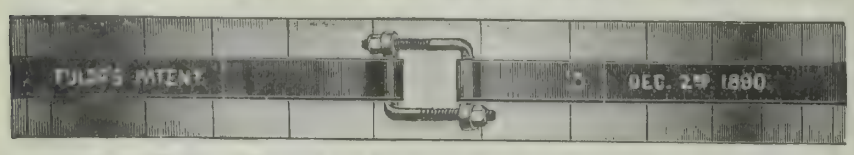

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PACIFIC RURAL PRESS

Vol. XLIV. No. 5. SAN FRANCISCO, SATURDAY, JULY 30, 1892. THE DEWEY PUBLISHING CO Office, 220 Market St.

At the World's Fair.

As the time draws nearer to the opening of the great Columbian Exposition at Chicago interest becomes keener in everything pertaining thereto. We have no doubt our friends who are serving upon county commissions and local committees, in solicitation and preparation of exhibits, are continually impressed with the fact that they have much to do in a short time. Those who anticipate a visit to Chicago and the East next summer, after long years of absence, feel their anticipations becoming ruling thoughts. With so much interest to cater to, we cannot probably do better than to present occasional glimpses of the great affair of the future as space permits.

The engraving on this page shows a perspective of the Machinery Hall, or, as its formal name runs, the "Palace of Mechanic Arts," which is now approaching completion at Chicago. The beauty of the building and its environment are striking. This building will be 850x500 feet and cost $450,000. It is located at the extreme south end of the park, midway between the shore of Lake Michigan and the west line of the park.

The building is spanned with three arched trusses, and the interior will present the appearance of three railroad train-houses side by side, surrounded on all the four exterior sides by a 50-foot gallery. In each of these long naves there is to be an elevated traveling crane for mining machinery. Steam power for this building will be shipped from a power-house adjoining.

The two exterior sides adjoining the grand court are to be rich and palatial in appearance. The two facades of Machinery Hall on the court are rich with colonnades and other features.

The design follows classical models throughout, the details being followed from the renaissance of Seville and other Spanish towns, as being appropriate to a Columbian exposition. An arcade on the first story admits passage around the building under cover. A colonnade with a cape at either end forms the length between Machinery and Agricultural halls.

PALACE OF MECHANIC ARTS AT THE WORLDS' COLUMBIAN EXHIBITION.

Wheat and Barley Acreage and Crop Estimates.

In the commercial department we give a tabulated statement by counties showing the acreage devoted this year in California to wheat and barley, in comparison with the acreage by counties for the three preceding years. The acreage seeded to wheat shows, when compared with that in 1891, a slight falling off, but the estimated yield to the acre is considerably larger. So far as the most reliable advices tend to show, the yield this year is about nine centals to the acre, which gives, in round numbers, a total of 1,400,000 tons, against a yield of 1,184,229 tons in 1891. The acreage devoted to barley shows an increase over that in 1891 of nearly 12 per cent and the yield to the acre an increase of fully five per cent. This year there were fewer of the fields seeded to grain cut for hay than has been the case for several years past. This falling off was due to weather influences more than to anything else. With more fields harvested the percentage of yield is naturally higher.

WHALEBACKS PROPOSED FOR WHEAT.—It is said that there is some talk of building one or two whaleback steamers to carry grain from California to Europe as an experiment, those now running to the lake ports having proved remunerative.

The Advance in Lima Beans.

The advance in the market value of Lima beans causes considerable speculation with those not well informed on the subject. This bean appears to be a great favorite at the East, where consumers will have it, let prices be what they may. The high prices which obtained two and three years ago induced heavy planting last year in the bean districts of this State. With a very large increase in the acreage planted and favorable weather, the crop was larger than ever before. Not only was the crop of Limas very heavy, but other varieties showed a decided increase over that gathered in 1890. The East was also favored with good bean crops. With heavy crops of beans, particularly Limas, on this coast, and a large increase in the crops East, prices sunk to such low figures that a loss, instead of a profit, was netted to those growers who held only to sell at the low prices which ruled in the winter and early spring months. The low prices naturally induced less attention to planting beans, and with the usual result, a large prospective falling off in the crop outturn and higher prices in consequence. The acreage seeded this year to beans in California can be safely placed at fully 15,000 acres less than that of 1891. In one county (Ventura) alone the acreage seeded to beans is returned this year by the County Assessor at 10,000 acres less than was returned in 1891.

GRAPE FOOD.—We are indebted to Eveleth & Nash for a specimen of "grape food," as produced by R. E. Wood of Rutherford, Napa county. It consists of comminuted dried grapes. It is shown by analysis to be nutritious and the taste approves it. It is commended for all uses to which raisins are put.

PACIFIC RURAL PRESS.

BY THE DEWEY PUBLISHING CO.

Office, 220 Market St.; Elevator, 12 Front St., San Francisco., Cal.

ANNUAL SUBSCRIPTION RATE THREE DOLLARS a year. While this notice appears, all subscribers paying $3 in advance will receive 15 months' (one year and 13 weeks) credit. For $2 in advance, 10 months. For $1 in advance, five months. Trial subscriptions for three months, paid in advance, each 60 cents.

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Half inch (1 square	1.00	2.50	6.50	22.00
One inch	1.50	5.00	13.00	42.00

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ANY subscriber sending an inquiry on any subject to the RURAL PRESS, with a postage stamp, will receive a reply, either through the columns of the paper or by personal letter. The answer will be given as promptly as practicable.

ALFRED HOLMAN.....General Manager

SATURDAY, JULY 30, 1892.

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BUSINESS ANNOUNCEMENTS.

[NEW THIS ISSUE.]

Prune Grader—W. C. Hamilton, San Jose.
Hay Presses, Wagon Scales, Etc.—Truman, Hooker & Co.
Cream Separators—A. J. Van Drake.
Fruit Trees—James T. Bogue, Marysville, Cal.
Artesian Well Tools—W Zartman & Co., Petaluma.
Auction Sales of Fruit—P. Steinhagen.
New Plants—Reasoner Bros , Oneco, Fla.

☞ *See Advertising Columns.*

The Week.

The fruit interests are still the lines of the greatest activity. The auctions of Sacramento river fruit, the results of which are given elsewhere, began on time—5 A M. Monday morning—and up to the time we write on Wednesday, the movement is certainly on the upward course, and is commanding increased support. The growers hold confidence, and the river steamers bring more each succeeding day. It looks now as though there would be an escape from many of the ills which shippers to this market have complained of, and now there comes in an advance in dried fruits and nuts just to encourage those who have the fruit to dispose of. The outlook is in every way encouraging. The second trainload of fruit for Liverpool goes along this week.

The meeting of olive growers in this city last week was very interesting and encouraging. We publish a part of the proceedings this week, and more will follow. Those in the olive interest propose to carry on the war against adulteration and in favor of the popularization of their product with full vigor. Free investment is being made in the outfitting of oil-making establishments, and the olive output will soon be respectable in amount.

Not So!

I have been long convinced that older States will produce, for their own use, the products which California seeks to send to them. By selection from the results accomplished by older workers, grafting on favorable stocks, developing improved seedlings from native and hybrid seeds, and especially from choice foreign seeds, acclimated by being born on the soil they must occupy, it will be proved that the older States need no wholesale supplementing of their products from any distant State.—H. S. W., Amador Co., in *R. N. Y.*

We think our generous Californian who thus seems willing to give away all the peculiar advantages of his adopted State, is wholly wrong both in his premises and his conclusions. The products which California is now chiefly sending to the Eastern States are such as they cannot produce there. The fruit trees and vines which thrive so well and yield so richly here have been tried for the best part of a century at the East and have failed again and again. To attempt to develop hardy varieties of these fruits has always failed thus far, and, granting it possible by such means as this writer names, it would take a good part of a century to do it. But the whole statement which we quote is a gratuitous mockery at California's natural endowments, which the writer does not appreciate, and possibly he should make room for some one who could better esteem his environment.

The Man With the Hoe.

The writer has been indulging considerably of late in earth-tickling with a hoe and reflections suggested by the work come to the mind with as much force and directness as the sun-flash from the blade to the eye which is held intent upon it. In fact, hoeing is an act which naturally prompts to cogitation and a man who hoes unthinkingly should have the hoe handle brought down upon his back with considerable speed and pressure.

And in thinking on hoeing we do not mean the thinking on the hoe, which is a pursuit of some historic standing. The boy thinks on the hoe when he denounces the interminable length of the row before him and declares that Joshua has been again at his astronomical intermeddling, for the sun has stood still for an hour above him. The man thinks on the hoe when he lingers at the fence to arrange the affairs of government with his neighbor across the fence, so that things will not collapse until he comes to the fence again at the end of the next row. To the mind meditative, too, there comes thoughts on the hoe which lead to wrapt expressions on the countenance as one contemplates the beauty of the landscape or as one loses sight of material things and fixes his gaze upon the heavens above or the firmament under the earth, and the hoe becomes the pillar of thoughts philosophical or devotional.

All these are thoughts on the hoe, perhaps, but they are not thoughts on hoeing, and it is the latter in which we have ourselves indulged. The first and most obvious reflection which comes to one who does summer-hoeing in an arid land is that the handling of the hoe which he practiced in his boyhood in Eastern garden or cornfield is not the hoeing which avails most now and here. The light, shallow stroke which fell just below the root crown of the weed, stirred the immediate surface a little and left the field clean, used to be the touch for Eastern hoeing, and a man could almost do it at walking speed for hours upon hours. Except a little extra deep work, which was called for when the occasional short drouths threatened, this shallow weed-cutting was sufficient to give the crop the upper hand in the struggle with weeds, and the frequent showers kept the surface moist enough to prevent baking.

If we are correctly informed, there is less shallow hoeing done now than a generation ago at the East, and deeper summer cultivation has been found profitable there. However this may be, it is clear that shallow hoeing is a delusion and a snare in this country. Practice it through the spring and as long as the weeds start, and your garden surface will be dusty. Think then contentedly about what you have heard of a mulch of fine earth retaining moisture. Lie in the shade and wait for the plants to rise triumphant above the dust-bed you have so zealously prepared. Can it be possible, instead of sprouting upward, the plant just holds its own and then goes backward, wilting, yellowing its leaves, and all but dying in its distress. Surely there must be a worm at the root. The hoe is seized and brought down upon the soil at an angle and with a force it has not known all summer. How the dust flies from the surface, and how the hoe flies from the hardpan just beneath the dust as though it had been brought down upon a marble slab. Then there come to mind thoughts on hoeing which never came before. Then it becomes plain that the shallow weed cutting stroke is not the dash of the hoe which saves the plant.

If the season is not too far advanced and the plant too shallow-rooted, you will work over those plants as though for their dear lives. That deadly hard-pan, which has formed with hoe-polished surface just beneath the dust, must be shattered, hauled to the light and battered with the flat of the hoe until it assumes some likeness to pulverization, and then possibly the plant may revive from its root extension into the moist soil below, which is now adequately protected from evaporation by the deep layer of fine soil above it.

One who goes through this experience once will know better how to hoe next time. He will see that by sharp, deep strokes, often using the corners of the blade, he will maintain a loose layer upon the surface which will be thick enough to prevent direct evaporation from a hardpan layer and thus to break the connection between capillary action and the atmosphere. Such hoeing is harder than light work with the blade nearly horizontal. It takes muscle to give a strong vertical stroke which penetrates well, and one cannot waltz along the rows whistling a lively tune, as is quite possible while weed-cutting in moist soil in February.

There is little grace, we admit, in the attitude of the Italian market gardener, as he straddles the row and arches his back and grunts as he sends his heavy mattock its full depth into the soil around the plants. The American with his fine, new, full-width, bronze-shanked, green-labeled, steel hoe, marching along the rows, touching the the soil with disdain as ill-worth exertion on his part, is a much handsomer picture. But the Italian's plants laugh at drouth. When irrigated the soil takes water like a sponge and it goes plump down to the roots of the plant. Irrigate the shallow-hoed plat; a pailful will run a rod and the plant root gets but the gurgle of the water as it flows along the surface of the hardpan.

Evidently, if one begins early in the season with deep hoeing, the midsummer tussle with hardpan will be obviated. This is really the lesson to be learned. And all that has been said about deep hoeing in preparation for the dry season applies also to deep cultivation in field or orchard.

Prospective Demand for Potatoes.

Although prices for potatoes in the San Francisco market have fallen off within the past few days, the general situation is encouraging to growers. The acreage planted this year is very much less in this State than it was in 1891. While the acreage is smaller, the demand promises to be larger. Last year the potato crop in the Central States was very large, with the quality generally good. The large crop gave such a liberal surplus as admitted of marketing large quantities in the Southern States, particularly in Texas, which State usually looks to us to furnish it with all required. This year the large potato-growing States east of the Rocky mountains do not promise to give a yield to the acre within 15 per cent of what it was in 1891, while the acreage planted ranges from 10 to 20 per cent less. The decreased acreage was due to heavy rains in the planting season, and the wet season caused considerable complaint about the seed rotting. The unfavorable weather caused larger late planting, much of which no doubt has been more or less damaged by extreme hot weather which prevailed East during the past week. Mention is made of potato bugs appearing in many districts earlier than usual.

Since writing the above we are in receipt of the *Farmers' Review*, July 20th, from which we excerpt the following synopsis of returns from its valuable corps of correspondents in the Central States:

The potato crop is not so good, being generally good in only Kentucky, Minnesota and the Dakotas. In Illinois 28 per cent of the correspondents report good, 40 per cent report fair and the rest poor. In Indiana 45 per cent report good, 30 per cent fair and the rest poor. In Ohio 60 per cent report good, 14 per cent fair and the rest poor. Nearly all in Michigan report fair to good. In Missouri 40 per cent report good, 30 per cent fair and the others poor. In Kansas 28 per cent report good, 32 per cent fair, the rest poor. In Nebraska 46 per cent report good, 43 per cent fair and the rest poor. The crop in Iowa is reported good by 38 per cent, fair by 30 per cent, poor by the rest. In Wisconsin the crop is fair to good in four-fifths of the State. Much rotting has been reported in nearly all of the States, and there is danger that, as the season progresses, the damage from rot will greatly increase. The past wet weather has been favorable for the development of the spores that produce the rot, and these conditions have been quite universal. In the cases of Minnesota and Dakota, the late planting has probably prevented the production of spores, and it is not likely that those States will be much affected.

ACTIVITY IN DRIED FRUIT AND NUTS.—Dried prunes, peaches and raisins were somewhat excited on Wednesday under firm offers wired from New York, at an advance on previously received offers. For the five sizes of prunes 9½ cents were bid, and for sun-dried, bleached peaches 12½ cents were bid. Both offers were free on board of cars here. Under advices from New York a large operator entered the market yesterday and bought all the 1891 raisins that could be secured. The prices paid, while private, are known to have been at sharp advance on the bids made a week ago. For 1892 raisins, future delivery, an advance is also bid. Not to be behind the times, almonds are strong and tending up. Other nuts, it is claimed, will sympathize. The upward movement is caused by confirmed reports received at New York of a very light crop of Tarragona and Avica almonds, a short crop of Brazil nuts, and reports that the crop of filbert nuts will be light. The advance in the price of almonds at New York ranges from 2 to 4 cents a pound and in Brazil of from 1 to 2 cents a pound.

IMPERIAL PEACH AND SIMON'S PLUM.—Mr. I. H. Thomas writes us that the Early Imperial, the early yellow freestone of W. W. Smith, sold in Chicago, July 2d, at $3 per box, being twice the price of any other peaches then in. Simon's plum (*Prunus Simoni*) sold at the same time at $5.50 per box of 20 pounds. We notice that reports of Eastern growers are all against this plum, some even pronouncing it worthless in quality. It bids fair to be the greatest instance of the diverse effects of climate and soil, for certainly the Simon plum grown in Tulare county, judging from the specimens we have seen and tasted, are very good indeed for an early plum. They also seem good to Eastern buyers, judging by the prices they have brought thus far. Let us remark again that, although the botanical name of the fruit is *prunus Simoni*, it is not a *prune;* it is simply an early plum.

THE Maryland peach crop is a short one.

From an Independent Standpoint.

Sensational incidents closely follow each other at Pittsburg and at Homestead, Pa., where the striking workmen at the Carnegie-Frick mills are still angry and defiant. On Saturday, during business hours, a young man of good appearance pushed his way through the outer office of the Carnegie Steel Company at Pittsburg, and into the private room of the manager, Mr. Frick, and as he advanced fired at him three times. Each shot found its mark, and without waiting to see their effect, the assassin plunged a knife four times into Mr. Frick's prostrate body. There was no attempt on the part of the man to escape, and he submitted quietly to the clerks in the office, saying that he intended to kill Frick and did not care what the consequences might be to himself. Mr. Frick's wounds were found to be very serious, but not necessarily fatal, and now, after four days, it is believed that he will recover. The name of the assailant is Alexander Bergman, his age 22, and his nativity Germany. He was formerly for two years in the employ of the Carnegie-Frick Company, although his usual occupation has been that of a compositor in connection with socialistic and anarchistic journals in different parts of the country. He declares that he had no personal motive for the assault, but thought that it would be good for mankind to have a tyrant removed; and although he disclaims that others are implicated with him in the attempt, it is certain, from hints inadvertently dropped, that he acted with the knowledge of his anarchistic associates, and with their approval and assistance. The strikers are not supposed to be directly interested in his attempt, although there was undisguised satisfaction at Homestead when the news of the assault reached that turbulent community. The leader of the strikers, Hugh O'Donnell, who saw the damaging significance of the act, was profoundly affected by the news, but others greeted it with marks of approval and satisfaction.

Among the men at Homestead who were especially pleased was a young fellow named Iams of Company K, Tenth Pennsylvania National Guard, who proposed three cheers for the assassin. He found in short order that he had made a mistake, for his arrest followed immediately; and acting in accord with the extreme letter of the Pennsylvania Militia Code, Col. Streator, in command, ordered him strung up by the thumbs, and this operation finished, to be drummed in disgrace out of camp. The young man is the son of Judge Iams of Green county, and is otherwise well connected, and there is loud complaint, not only throughout the State, but all over the country, against the punishment, which is charged to have been arbitrary and cruel. Justification for Col. Streator's severity is found in a law enacted after the riots of 1877. At that time the militia sympathized with the mob and refused obedience to their officers at a critical time. During those riots, especially on the Saturday preceding the burning of the Union depot in Pittsburg and the bombardment of the Philadelphia troops in the roundhouse of the Pennsylvania Railroad, some of the State troops were so pronounced in their sympathy with the strikers that they systematically foiled all the efforts of the officers to disperse and control the mob. This sympathy on the part of the militia for the strikers, and their utter inefficiency at a critical moment, induced the next legislature to enact more stringent laws for the enforcement of discipline. The legislature at that time was dominated by the agricultural element of the State, with whom the conviction prevailed that the city troops in particular were responsible for the disgrace of the militia. The country members of the legislature, always stern in the maintainance of law, determined that any further shortcomings of the State troops should be punished severely. Under this law, young Iams was punished. Its greatest penalty is disfranchisement, and Iams will suffer in this respect as he has already suffered personally, unless he shall receive executive pardon. It may readily be imagined that these incidents, in combination with the general situation as it existed a week ago and still exists, have kept the Homestead affair before the public as the foremost topic of general interest. All other subjects have been secondary and subordinate.

The Homestead affair is prolific in lessons for the American people. It shows the need of quicker and more direct methods of action in suppressing riots. Under the existing system, the owner of property in peril must appeal to the local sheriff, and he failing, then to the Governor of the State, and he failing, then to the President. All this means delay, even when the officials are well disposed, in which millions of property may be destroyed. The time has come when the Government should take matters of this sort directly in hand. The next lesson is the necessity of amending the immigration laws. Too long, far too long, we have held the doors wide open not only to the industrious and well-intentioned foreigner, but to the hordes trained in discontent and criminality. It is time to discriminate, and to discriminate closely, between the useful and the vicious. The principle that has already been put in force against the Asiatic must be applied to the European. Only those who give promise of useful citizenship should be allowed to come in. The old sentiment which made America an "asylum for the oppressed of the earth" is a fine one, and it worked well enough before the steamship and the railway, but now, when it is but a cheap and brief journey from Central Europe to America, the old rule will not work. Either we must keep out the disorganizing elements of European life, hatched and bred under tyrannical systems of government, or they will destroy us. Another lesson is the old one that violence begets violence. If we are to suppress arbitrary force on the part of the workman, we must suppress arbitrary force on the part of the master. A Pinkerton army always meets a mob. There must be no armed forces in America save those organized in the interest of society and under its authority. Still another lesson is the necessity for the suppression of partisan spirit in matters of administration. It was this spirit which tied the hands of the sheriff at Homestead. It was this spirit that made Governor Pattison delay. And this spirit it was that is primarily to blame for the shameful battle of two weeks ago.

It has not escaped the notice of the Democracy, either before or since the national convention, that the Mugwumps hold Mr. Cleveland to be their very own and a Democrat only in a secondary sort of way; and concerning it there has been a good deal of dissatisfaction and some positive resentment. Mr. Cleveland no doubt had this fact in mind when he arose last Wednesday evening in New York to respond to an address by Mr. Wilson of West Virginia, notifying him officially of his nomination by the Democratic national convention, and his remarks were shaped accordingly. "The message you deliver from the national Democracy," he said, "arouses within me emotions which would be well nigh overwhelming if I did not recognize here assembled representatives of the great party who must share with me the responsibility your mission invites. I find relief in the reflection that *I have been selected to stand merely for the principles and purposes to which my party is pledged and for the enforcement and supremacy of which all who have any right to claim Democratic fellowship must constantly and persistently labor.*" There was more of the same sort, all tending in the most positive way to connect his candidacy with, and to demonstrate his allegiance to, the Democratic party. Of course, this will stop the mouths of those who have been loud in declaring that Cleveland was less of a Democrat than a Mugwump, and that he held allegiance to the Democratic party subordinate to his independent proclivities. The address following was chiefly devoted to the tariff question and asserted in strong and definite terms the extreme views of the tariff reformers, but there was a paragraph in it which many who have greatly admired Mr. Cleveland's independence of character read with profound regret. Supporting his argument against the tariff, Mr. Cleveland says: "Our working men are still told the tale oft repeated in spite of its demonstrated falsity, that the existing protective tariff is a boon to them, and that under its beneficent operations their wages must increase. While they listen, scenes are enacted in the very abiding place of high protection that mock the hopes of toil and attest the tender mercies the working man receives from those made selfish and sordid by unjust governmental favoritism." This remark gave no strength to Mr. Cleveland's argument, and it was unquestionably designed as a sop to the strikers at Homestead, Pa. If the question between the mill owners and the mill workers at Homestead and Pittsburg was the original one of wages, then Mr. Cleveland might have been justified in saying what he did, but the question of wages has been superseded by the broader questions growing out of the violated rights of citizenship, liberty of personal action and the rights of property. In such a crisis, great leaders like Mr. Cleveland are in duty bound to take the side of public order and cleave firmly to it. It is not a time for demagogy, and Mr. Cleveland was the last man in the country who might have been expected to turn the occasion of turbulence and irritation to political profit. Mr. Cleveland's remark's will be construed by the strikers as a message of sympathy to them, and following as it does the absurd and revolutionary utterances of Senators Palmer and Voorhees in the Senate when the trouble at Homestead began, will do much to lessen the tone of the coming campaign. In saying this much, we would have the reader carefully distinguish between the rights involved in the original question of wages and the wrongs involved in the later development of riot. The wages question is no longer the question at Homestead. The question now is as to right of the strikers to control and destroy the property of mill owners and to prevent by violence other men who stand ready to work for the wages offered from the exercise of their free choice. To this question there is only one answer consistent with civilization and orderly government.

The Republican State Convention which met, transacted its business and adjourned on Tuesday was the shortest political convention in the history of the State. To be sure, it had but little to do, but conventions with the least to do usually take the longest time to do it, and it was a happy surprise when the job was finished on the evening of the day it was begun. The platform is brief. It reaffirms the platform of the Stockton Convention held last May; adopts the platform and resolutions of the National Republican Convention; pledges cordial support to Harrison and Reid; welcomes the Republican College League as an ally in the political field; recommends the passage of the mining bill now pending before Congress, and wanders finally into a resolution concerning transportation. Here, of course, was the rub. The resolution is as follows:

Resolved, That the Republican party of California has always stood for the material development of the State, and believing that increased facilities of transportation both by water and rail will conduce to that end, it demands from the General Government the early completion, under Government control, of the Nicaragua Canal, and the liberal expenditure of money to improve our harbors and internal waterways, and it invites capital to build into the State other and competing transcontinental lines of railway, pledging protection and support to all instrumentalities existing and to exist that may promote the general welfare and give to the people the benefit of the law of competition.

We very much fear that the farmers of California who were looking for bread will feel that in this resolution they have been given a stone. There was an effort on the part of Mr. Fuller of San Diego, supported by others, to secure a plank pledging the Republican party to do all in its power to force the Railroad Commission to reduce the local fares and freights of the S. P. R. R. system, but the usual force of railroad lawyers and politicians was on hand, and Mr. Fuller's proposition was buried out of sight. For electors at large, Thos. H. Bard, of Ventura, and Joseph C. Campbell, of San Francisco, were named by the convention, with Geo. B. Crook of Merced and A. S. Hallidie of San Francisco as alternates. E. W. Davis, Master of the State Grange, was nominated for Congress from the First District, with Wm. Carson of Humboldt as District Elector; from the Second District, John F. Davis of Calaveras was nominated for Congress, with Geo. B. Sperry for District Elector. From the Third District, S. G. Hilborn was named for Congress, with James A. Waymire for Elector. In the Fourth District, C. O. Alexander was nominated for Congress, with I. Hecht for Elector. In the Fifth District, Eugene F. Loud was nominated for Congress, with H. V. Morehouse for Elector. The Sixth District chose John T. Porter for Elector, but adjourned to meet in Santa Cruz on the 29th for the purpose of nominating its candidate for Congress. In the Seventh District, S. L. Hanscom was named for Elector, but no nomination was made for Congress. The convention is described in the reports as quiet and harmonious.

John and Charles Ruggles, stage robbers and murderers, were taken from the Redding jail last Saturday night by a mob and hanged. There was no violation of substantial justice, since the guilt of the victims was self-confessed. But this fact does not excuse the act. A lynching bee is an object lesson in disorder. It puts in contempt the authorities whose respect is essential to the well-being of society. Incidents of this sort always breed lawlessness, because they destroy the moral force of law and of social discipline. A community which suffers this sort of thing once is likely to suffer it again. Nothing so much promotes order as obedience to law and nothing so much promotes disorder and social anarchy as disregard of law. Those who sow the wind always reap the whirlwind. The dispatches which reported the affair at Redding said that people came from all the surrounding country to see the dead men dangling in the air. If the reporters are to be credited, people brought their young children to witness the revolting sight. This is almost past belief. If there is a phrase in the language strong enough to name the folly of a parent who would thrust upon youthful innocence a sight so horrible and demoralizing, we do not know it. Such a scene never did anybody good; it never fails to do harm.

Death of Palo Alto.

The death of this famous stallion from pneumonia occurred on Thursday of last week at Senator Stanford's ranch in San Mateo county. His speed achievements last fall gave him a world-wide reputation. At the record meeting on the Stockton kite-shaped track last year he trotted the following miles:

October 13	32½	1:04	1:38	—2:12¾
October 21	33¼	1:05¾	1:39¼	—2:11¼
October 27	32	1:03½	1:36½	—2:10
November 3	32¼	1:04	1:36½	—2:09½
November 10	31¾	1:03¼	1: 6½	—2:10¼
November 10	31¾	1:03½	1:36½	—2:09¼
November 16	32¼	1:04	1:37½	—2:10½
November 17	31¼	1:03½	1:36½	—2:08¾

Palo Alto was ten years old at his death. Senator Stanford estimated his value at $150,000, but no offer could induce him to part with the horse. There are a number of his colts at Palo Alto, all yearlings, which are promising.

Weather and Crop Bulletin for Week Ending July 25th.

The following report of the crop conditions for the week ending Monday evening, July 25th is from the reports of the voluntary crop correspondents, forwarded to the Director of the California Weather Service in cooperation with the State Agricultural Society, and shows that prices of fruits have rapidly advanced and all crops are considerably below the averages of years that have yielded ordinary crops. The Grasshoppers are quite destructive in the neighborhood of Blocksburg, Humboldt county, destroying garden stuff, feed, and in some cases even the young trees. There was no rainfall during the week, which is a normal condition. The highest temperature was 99° and the lowest 42°. New barns have been erected for storing baled hay, and the roof will not be put on until just before the weather warnings of the first rains.

HUMBOLDT. — *Eureka* — There is a great deal of sameness in the weather; that is, cloudy at night and clear and warm during the days. Grain of all kinds is doing well. Fruit, although a short crop, will be of an excellent quality. The potato crop will not be as large as last year.

Blocksburg—The season is unusually cool, the highest and lowest temperatures being 86° and 48°. Heavy northwest winds every day, with cool nights and foggy mornings. The corn crop is almost a failure, and grasshoppers have made their appearance in greater numbers than ever before known, and they are destroying garden stuff and feed; in some cases even the young trees.

Hydesville—Hay is mostly all cut and put up in good shape. It is of a good quality. Oats are looking well.

LAKE. — *Ma Tel Vineyard, Upper Lake* — The week has been fairly cool, and fruit is still slowly ripening. The crop is small but quality good. Heading (harvesting) is well along and the yield promises to be good. Threshing begins next week. Rust has not done as much damage as was at first expected. Grapes are doing well, but there is a prospect of a late vintage.

BUTTE. — *Palermo* — The first shipment of Early Crawford peaches was made on Monday, the 18th, at 4⅝ cents net, to San Jose, per ton. Shipments are now made daily, consigned to different parties in Sacramento, for Eastern shipment.

SUTTER. — *Yuba City* — The weather has been about the average for this season of the year; viz., cloudless skies and no rain, with plenty of heat from the sun, which is good for ripening all classes of green and gr wing fruits. The grain yield is a fair one. Large quantities of fruit being shipped East. Corn, hops, buckwheat, vegetables, etc., doing extremely well.

YUBA.—*Marysville*—Wheat is being rapidly harvested. The crop will not be up to the average, and the fruit crop is generally light.

PLACER.—*Newcastle*—Orchardists greatly encouraged with so favorable an outlook for their products during the season, the quantity and quality being a good average and prices satisfactory.

AMADOR.—*Oleta*—Clear and fine weather, but quite cool for the season. Threshers report an average yield.

SACRAMENTO—*Sacramento*—The weather has been below the normal during every day except two, and one of those was normal and the other three above the normal; the daily average was 1½° below normal. The normal rainfall is nothing. The past week was normal in a precipitation aspect. The cool weather has retarded the rapid ripening of fruits and berries, thereby giving ample time for picking and marketing the crop without glutting the markets.

SOLANO.—*Vacaville*—The weather has been warm and fruit of all kinds has been benefited. Grapes are doing well and being shipped in large quantities.

SONOMA.— *Healdsburg* — Canneries open on Thursday on Crawford peaches. More foggy nights would help the corn. Hops promise well. The fruit buyers are anxious to buy, but they were a week late, otherwise they might have made contracts at their own prices. Peaches are selling for $40 per ton.

Santa Rosa—Conditions unchanged from last week. Hops are growing well and setting nicely. It is too early to make any prediction as to the yield. Orchardists show a disposition to hold on to their fruit and propose to make the packers pay them all they possibly can. Hay nearly all in and heading and threshing well advanced.

ALAMEDA—*Niles*—Royal apricots all gone; Moorpark apricots are being marketed and prospects good for a fair yield and fair prices. Highest temperature 91°.

Pleasanton—Highest and lowest temperatures 92° and 43°; the average temperature about normal for the week, with favorable conditions for ripening and maturing fruits and cereals. Threshing is being vigorously pushed. The yield will be lighter, both in quality and quantity, than was at first anticipated. Hops are *arming* out, but are fully three weeks later than last year on account of the cool spring weather. Sugar beets doing well.

SANTA CLARA.—*Gilroy*—Grain has all been cut and is being threshed, with the output fairly good and quality excellent. Most fruits show a light crop but of a fair quality, and most excellent prices being obtained.

SANTA CRUZ.—*Watsonville*—Weather very favorable to all growing crops and harvesting operations. The sunshine has been very beneficial to fruits. Threshing is going on in full blast all over this and the adjoining counties.

SAN JOAQUIN.—*Lodi*—Highest and lowest temperatures 95° and 51°, with westerly winds prevailing. The wheat yield is below the average and quality fair to good. The first carload of watermelons shipped on the 21st, two weeks later than usual, and it will be some days yet before they become plentiful.

Stockton—Wheat is coming in this market freely at the present time, The average yield is good, but some of the grain is slightly shrunken, making the crop not quite so valuable as was at first anticipated.

MONTEREY.—*San Ardo*—The weather has been quite favorable to the fruit crop. Highest and lowest temperature, 99° and 42°. Grain turning out poor and very much below the general average.

TULARE.—*Visalia*—The wheat crop is yielding much better than at first expected. There will be an extra large crop of prunes; all other fruit an average crop. The weather has been extremely cool for this season of the year.

TEHAMA.—*Red Bluff* (telegram)—The temperature during the week has been about normal and the weather generally favorable to harvesting. The yield of wheat and barley in Butte county is above the average both in the quality and the quantity.

FRESNO—*Fresno* (telegram)—Weather cloud'ess and temperature below the normal, which has been very beneficial to all crops but has delayed the ripening of fruits and berries. Bartlett pears, Early Crawford peaches, plums and nectarines are being shipped from three to five carloads daily, and they are of the finest quality. Harvesting is progressing; yield fair.

LOS ANGELES.—*Los Angeles* (telegram)—The weather still continues cool with cloudy mornings in the coast districts. Apricots are about gone in the western district; drying of the apricots continues in the eastern section. Pears are beginning to be marketed and the crop promises at least a fair one. The grain harvest continues in the Antelope valley and the yield is about the half of a full crop while the quality is below the average.

FRUIT MARKETING.

Lodi Watermelons.

LODI, July 24.

TO THE EDITOR:—Perhaps the largest district in the State of California growing watermelons for the general market is a region of about four miles radius around Lodi, Woodbridge and Acampo in San Joaquin county and but a few miles from Stockton. Some 2000 acres have been planted this season, but the season is full three weeks late as compared with other years. The first two cars were shipped from Lodi on July 21st by J. Peirano and July 22d by L. O. Gillespie. This introduces the melons to the trade of 1892 One car was sent to San Francisco and the other to San Jose. The former sold for $3 per dozen.

For the early crop last year, the freight via railroad was $22.50 per car to the points named. This year a new departure has been made by the growers. A watermelon association has been formed by the growers agreeing that they will sell the melons in San Francisco and not be dependent entirely on the commission merchants. I am told that all the acreage of melons but 40 acres is represented. The growers have named L. O. Gillespie to supervise the selling in San Francisco. He is to have his own bookkeeper and make all he can out of the crop for all the members.

This year, on account of the lateness of the season, the yield will be such that it will take two acres to fill a car; that is the way Mr. Peirano explains the quantity grown to an acre.

While visiting the district, I noticed that a large number of acres are being grown without irrigation, and large numbers are planted in between the young fruit trees, thus giving profit to the grower while the trees are coming into bearing. W. H. MURRAY.

ANOTHER ACCOUNT OF THE MELON GROWERS' ENTERPRISE.

For a number of weeks the melon men have been holding meetings in Lodi, for the purpose of combining for mutual benefit in the disposition of this year's watermelon crop, which has come on the market during the past week The meetings were held in secret, but now that the combine has been made, the result of the organization has become known. With but one or two exceptions, all of the growers are in the combine, which has decided to ship all San Francisco consignments to Riley & Enos, and everything to Oakland to S. Angel & Co. Whenever a grower sells a car of melons, ten per cent of the net proceeds is withheld and deposited in the Bank of Lodi. If the grower stands up to the stipulations of the combine, he will be given this amount so retained, at the end of the season; but if he should, at any time during the season, dispose of melons contrary to his agreement with the combine, then this ten per cent will be distributed equally among the other members of the organization. The Bank of Lodi has been selected as treasurer, through which all checks will pass to growers from the commission merchants. Growers are permitted to ship to points other than San Francisco or Oakland, at any time and in any amounts desired. In other words, the combine has to do with San Francisco and Oakland consignments only. Growers are confident they have done the right thing, and are looking forward to good prices in consequence of their action. They have come to the conclusion that it is better business policy to lose melons than to be out their melons and the cost of picking, loading and shipping, too.

Two cars, the first of the season, were shipped Thursday, one to San Jose from G. Peirano, and the other to San Francisco fram Chong Kee of Lockeford. L. O. Gillespie shipped a car to San Francisco yesterday, and S. S. Gillespie sent a car to San Jose.

Colonel L. O. Gillespie will look after the growers' interests in San Francisco, and C. W. Norton will represent the melon men in the Oakland market.—Lodi Sentinel.

Fruit Sales by Auction in San Francisco.

The following are the three days' auction sales of Sacramento river fruit which have been held, up to our going to press on Wednesday:

Monday, July 25.—Henry Meyers, Early Crawford Peaches, 37½c ℔ basket; W. N. Runyon, Peaches (180 baskets), 47½c ℔ basket; W. N. Runyon, Early Crawford Peaches, 50c ℔ basket; W. N. Runyon, St. John Peaches, 45c ℔ basket; W. H. Barry, Peaches, 45c ℔ box; H. D Kercheval, Peaches, 50c ℔ basket; J. R. Olsen, Peaches, 40c ℔ basket; E. Crofton, Peaches, 40c ℔ basket; E. Crofton, Pears, 55c ℔ box; Mrs. M. A. Jackson, Peaches, 42½c ℔ box; Mrs. M. A. Jackson, Potatoes, 47½c ℔ sack; A. J. Reynolds, Peaches, 42½c ℔ basket; *A. J. Reynolds, Pears, $1.50 ℔ box; P. Crew, Peaches, 40c ℔ basket; J. S. F. & Mow Lung, Peaches, 37½c ℔ basket; L. Strothman, Peaches, 40c ℔ basket; C. Hansen, Peaches, 42½c ℔ basket; C. Hansen, Nutmegs, 50c ℔ box; D. & N., Peaches, 50c ℔ basket; John Miller, Peaches, 42½c ℔ basket; John Miller, Peaches, 40c ℔ basket; John Miller, Peaches (60-lb. boxes). 55c ℔ box; B. Bates, Peaches, 42½c ℔ basket; B. Bates, Pears, 45c ℔ box; Johnston & Son, Peaches, 50c ℔ basket; E. Dann, Peaches (No. 1), 50c ℔ basket; E. Dann, Peaches (No. 2), 30c ℔ basket; George B. Greene, Peaches, 40c ℔ basket; D. Osborne, Peaches, 42½c ℔ basket; S. Runyon, Peaches (Seedlings). $1.55 ℔ basket; S. Runyon, Plums, 45c ℔ basket; S. Runyon, Early Crawford Peaches, 60c ℔ basket; R. Kercheval, Peaches, 40c ℔ basket; D. D. Gammon, Peaches, 40c ℔ basket; D. D. Gammon, Pears, 50c ℔ box; O. R. Runyon, Pears, 75c ℔ box; George A. Smith, Tomatoes, $2.50 ℔ box; D. T. Lufkin, Tomatoes, $2.50 ℔ box; J. R. Olsen, Tomatoes, $2.50 ℔ box; R. D. H., Tomatoes, $2.25 ℔ box.

*Donation to Protestant Orphan Asylum.

Tuesday, July 26.—D. D. Gammon, 70 baskets Peaches, 42½c; Henry Meyers, 300 baskets Peaches, 35c; C. W. Gammon, "B. B. B.," 79 baskets Peaches, 37½c; W. J. Smith, 9 baskets Peaches, 30c; A. J. Dailey, 27 baskets Peaches, 35c; R. Kercheval, 253 baskets Peaches, 40c; R. Kercheval, 18 baskets Peaches, 40c; H. D. Kercheval, 186 baskets Peaches, 37½c; L. Strothman, 94 baskets Peaches, 37½c; J. R. Olsen, 47 baskets Peaches, 37½c; John Crofton, 90 baskets Peaches, 40c; John Miller, 101 baskets Peaches, 40c; John Miller, 40 baskets Peaches, 40c; L. D. Greene, 109 baskets Peaches, 40c; L. D. Greene, 11 boxes Peaches, received yesterday, 50c; L. D. Greene, 3 boxes Pears, 42½c; Dann & N., 23 baskets Peaches, 50c; Mrs. M. A. Jackson, 87 baskets Peaches, 45c; A. J. Reynolds, 17 baskets Peaches, 40c; J. Collins, 220 baskets Peaches, 37½c; C. Goldman, 141 baskets Peaches, 37½c; Geo. Smith, 11 baskets Peaches, 40c; J. S. Foster & Mom Lung, 3 baskets Apples, 30c; J. S. Foster & Mom Lung, 56 baskets Peaches, 42½c; F. Gomez, 86 baskets Peaches, 40c; O. P. Stuart, 166 baskets Peaches, 40c; O. P. Stuart, 7 boxes Pears. 45c; A. W. Stuart, 209 baskets Peaches, 42½c; C. Hansen, 73 baskets Peaches, 47½c; D. Osborn, 26 baskets Peaches, 45c; D. Osborn, 3 boxes Tomatoes, $1.35; W. N. Runyon, 6 boxes Tomatoes, $1.50; W. N. Runyon, 24 boxes Pears, 37½c; O. R. Runyon, 27 boxes Pears, 77½c; G. McIntyre. 20 boxes Pears, 62½c: Sol Runyon, 8 boxes pears, 50c; Sol Runyon, S. Seedling Peaches, $1.25; D. Leary, "J. J. & L.," 4 boxes Tomatoes, 90c; Ah Poy, 5 boxes Cucumbers, 35c; Tong Yen, 22 boxes Tomatoes, $1.37½c; J. Albert, 12 boxes Tomatoes, $1.40.

Wednesday, July 27.—L. D. Greene, 120 baskets Early Crawford Peaches, 40c; L. D. Greene, 12 baskets Cling Peaches, 45c; L. D. Greene, 5 baskets Peaches, 50c; J. P. Koch & Co., 5 baskets Apricots, 40c; N. Ruggles, 3 baskets Early Crawford Peaches, 35c; A. J. Dailey, 70 baskets Peaches, 42½c; A. J. Dailey, 1 basket peaches, 35c; W. H. Barry, 43 baskets Peaches, 37½c; W. H. Barry, 26 baskets Peaches, 45c; W. H. Barry, 3 baskets Prunes, 90c; W. H. Barry, 10 boxes Pears, 70c; J. R. Olsen, 11 boxes Pears, 75c; A. J. Reynolds, 10 boxes Pears, 75c; A. J. Reynolds, 60 baskets Peaches, 50c; C. W. Gammon, "B. B. B.," 50 boxes Tomatoes, 50c; D. D. Gammon, 27 baskets Peaches, 40c; D. D. Gammon, 15 boxes Pears, 57½c; D. Osborn, 27 baskets Peaches, 40c; Geo. Smith, 9 boxes Tomatoes, $1.62½; Geo. Smith, 23 baskets Peaches, 47½c; S. F. M., 20 boxes Tomatoes, $1.25; W. N. Runyon, 80 baskets Peaches, 42½; W. N. Runyon, 93 baskets Peaches, 40c; W. N. Runyon, 80 baskets Peaches, 42½c; W. N. Runyon, 22 baskets Prunes, 77½c; W. N. Runyon, 11 baskets Prunes, 60c; O. R. Runyon, 19 boxes Pears, 70c; John Crofton, 6 baskets Nectarines, 30c; John Crofton, 74 baskets Peaches, 47½c: John Crofton, 2 baskets Peaches, 47½c; D. Hollister, 5 baskets Plums, 42½c; D. Hollister, 1 basket Prunes, 25c; D. Hollister, 6 baskets Peaches, 47½c; B. Bates, 28 baskets Peaches, 42½c; Green Bros., 40 baskets Cling Peaches, 50c; Sol Runyon, 34 baskets Sawyer Seedlings, $1.52½; Sol Runyon, 122 baskets Early Crawford Peaches, 50c; Sol Runyon, 2 baskets Plums, 75c; Sol Runyon, 8 baskets Prunes, $1; P. Crew, 100 baskets Peaches, 45c; P. Crew, 176 baskets Peaches, 42½c; J. Miller, 69 baskets Peaches, 45c; J. Miller, 3 baskets Plums, 65c; E. Dann, 74 baskets Peaches, 50c; J. S. Foster & Mow Lung, 33 baskets Peaches, 47½c; Joe Albert, 55 baskets Peaches, 42½c; Mrs. M. A. Jackson, Peaches, 45c; H. D. Kercheval, Peaches, 45c.

Progress of the Liverpool Fruit Shipments.

NEW YORK, July 26.—A consignment of California fruit for England was to-day stowed away in the immense hold of the Majestic, which has been properly fitted up to keep fruit in good condition. This shipment consists of five carloads, including Crawford peaches, Bartlett pears, plums and apricots, valued at $5000. Their transportation to Europe is something of an experiment, as it is not certain that it will arrive there in good condition. Most of the fruit is going to John Adamson & Co., large fruit dealers in Liverpool.

The time from San Francisco was the quickest ever made by a fruit train. The train left on July 19th and got in last night. This is the first large cargo of fruit ever sent to Europe. One car contained a tempting assortment of delicacies for Queen Victoria.

SACRAMENTO, July 26.—G. H. Appel, agent of the California Fruit Transportation Company, to-day received a telegram announcing the safe arrival in New York of the first London special fruit train, which left Sacramento one week ago to-night. The train arrived at 3 o'clock this morning, and the five carloads of fruit were quickly transferred to the swift steamer Majestic, which leaves New York Wednesday morning for Liverpool. The running time made from here to New York was 140 hours and 7 seconds.

The weekly special for London left Sacramento to-night at 10 o'clock. A. T. Hatch loaded two cars, the California Fruit Union and Frank Buck of Vacaville one car, Gregory Bros. one car and C. W. Reed one car. Agent Appel is very sanguine of the complete success of the enterprise.

Santa Barbara Notes.

CARPINTERIA, July 24, 1882.

TO THE EDITOR :—The weather now is cool, with some fog, which is good for the growing crops.

Beans are blooming nicely. The vines are of small growth, owing to so little moisture in the soil. If August proves very sunny and dry, corn and beans will suffer, and much less than an average crop will be harvested.

Buyers are bidding up in prices for beans, so we may get fair prices for what are grown.

Hay is a fair crop, selling at $8 to $12; more grain, barley and wheat being threshed than usual.

The fruit crop is coming on. Apricots are nearly gone. Some few—two or three carloads—for the cannery at Colton brought $1.25 per hundred pounds, delivered at railroad station at Carpinteria. Many were sold at $15 per ton, to be dried at Newhall or other sunny places in the interior. Apricots averaged smaller than usual, so that many that went away to dry did not look very promising. Several of the growers evaporated their crop at home, or what they could manage of it, and sold most of the product for 8½ to 11 cents per pound. Many apricots went to waste where there were not many trees. We are not careful enough to save the "littles." The best way is to harvest and save, that nothing be lost.

Peaches begin to ripen. There will be many more than the local markets will take, so they must be dried or lost. The Colton Packing Co. has secured most of the best Bartlett pears for canning. The surplus must be dried or rot. A great deal of labor is required to fit pears for drier, so that very low prices for the product will not pay, but perhaps this year dried pears may pay.

Grapes begin to ripen and are a fair crop, unless mildew comes later and spoils them.

Nectarines are a fair crop. Plums very few. This is not a very good locality for plums or prunes.

O. N. CADWELL.

HORTICULTURE.

Eastern Nurserymen and the California Quarantine.

From the annual report of B. M. Lelong, Secretary of the State Board of Horticulture, we take the following concerning the points at issue between California horticulturists and Eastern nurserymen:

I have received the following resolutions, passed by the American Association of Nurserymen, at their meeting at Atlanta, Ga., viz.:

Resolved, That the secretary of this Association notify the president and secretary of the California State Board and other proper officers that the people east of the Rocky mountains consider the present inspection laws of California a measure uncalled for and a great discrimination, and demand their prompt repeal.

Resolved, That in the event of having to pass such laws, the Executive Committee be requested to employ a good attorney to draft a uniform law to be passed by the respective States east of the Rocky mountains, and one which shall be so framed by a schedule of fees as to be no expense upon the State.

Accompanying the resolutions was a letter from the secretary of the Association, as follows:

AMERICAN ASSOCIATION OF NURSERYMEN,
SECRETARY'S OFFICE,
ROCHESTER, N. Y., July 1, 1892.

I am requested by a unanimous vote of this Association to forward to you the enclosed resolutions.

Allow me to volunteer a few lines of explanation in regard to the position of our nurserymen as I understand it:

We consider California a part of the United States, open to commercial intercourse, without obstructions; but we find the California State line is now more effectually blockaded against the sale of our products than the border lines of any foreign country. This condition might be borne by us with better grace if an equal barrier was in force against products of California coming East, but no such barrier exists, and California fruits are poured into our Eastern markets in enormous floods, to the injury of Eastern fruit growers.

We desire reciprocity with California. This is a more liberal policy than California offers Mexico, as will be noted by the following excerpt from a recent California fruit grower: "If, therefore, reciprocity with Mexico means the free admission of citrus and other California-grown fruits to the United States, it is the first duty of every fruit producer to oppose and resist it to the last extremity. Such a governmental policy would sound the funeral march of our most promising industries and would postpone the settlement and development of this State to a vague and indefinite future. It must not be."

Your reply will be that your people are simply protecting their orchards from insects and diseases, but this is considered by us simply a pretext. Such pretexts are offered by Germany in order to exclude American pork, and by France to exclude our evaporated fruits.

A similar pretext was attempted by a northern State in order to shut out nursery salesmen from all other States, claiming that such salesmen sold trees that were not adapted to the North, etc. Numerous pretexts of similar character might be raised by Georgia, Tennessee or any other State where peach yellows never has, and never will exist on account of incongeniality, as is the case in California, and where disease and insects could not possibly be shut out by legislation if naturally inclined thereto.

If one State can shut out all commercial dealings with another State by such pretexts, and yet sell her own produce to the abused States, surely our United States will become a misnomer—they will become disunited commercially.

But further than this, California has been arbitrary and reckless of the losses which she has imposed on nurserymen of other States, by burning carloads of trees, etc., which have caused many anxious hours to produce, and the loss of which may seriously cripple the owner. Men poorly qualified to judge of this burned stock have consigned them to ashes when they should have accepted them as a healthy product.

There are many nurserymen dependent on their California trade, who now know not whither to turn for a market. Instead of having done California harm, they have, as pioneers, aided California to reach her present condition.

You may reply that the present California exclusion of nurserymen from other States is the action of fruit growers, not California nurserymen, but we cannot see it in that light. So long as the exclusion of outside nurserymen will increase the profits of California nurserymen one-half or more, it must be apparent that California nurserymen are at the head of the barricade, though they may be shrewd enough not to let their lights shine too brightly in public discussions.

After California did her worst in making State laws against us, your Congressman attempted legislation in Congress, which, if passed, would have been a death blow to the nursery trade of the entire country. He would listen to no compromise until the prompt action of this Association had, through its members, killed his bill.

We desire just and fair dealing, such as should prevail between neighbor and neighbor. We do not desire monopoly on our part, nor will we permit it in other.

Hoping to be favored with a reply at your earliest convenience, I am yours respectfully,

CHAS. A. GREEN, Sec'y.

MR. LELONG'S REPLY.

In reply to this letter, I have but repeated what I have said, as given on page 190 of the Report for 1891, as follows:

"There have been various assumptions that the action of the State Board of Horticulture is one of persecution leveled against Eastern nurserymen in the interest of California tree growers. An imputation of this character is too small to require serious consideration. Suffice it to say that no member of the Board, nor any of its officers, has ever lent himself to so small a business as boycotting any one. The statutes of California providing for the preventing of the introduction or spread of insects or diseases injurious to our fruits, are general, and are not in any manner aimed at the Eastern nurserymen, nor do they reach in any way stock that is not infected with diseases or pests that may endanger our orchards. Eastern trees, or trees from any foreign country, may be imported into California in any number, provided they are not infected.

"The laws which have been enacted to protect the horticultural interests of the State are general, and people, whether residents of California or not, are presumed, and conclusively presumed, to have notice of their provisions; and no one in any prosecution under these acts can plead ignorance of their provisions.

"It is incumbent on every orchardist to disinfect all fruit trees grown on lands infected with any insects, or any contagious disease known to be injurious to fruit, etc. This not only applies to home-grown trees, but to any that may be brought from any districts, whether in the United States or in foreign countries.

"The fact of the deadly yellows and rosette abounding in many of the Eastern States, and destroying the peach orchards everywhere, has caused every load of Eastern trees to be rigidly inspected. If the slightest trace of infection is found, the trees are condemned and proceedings at once instigated to have them destroyed. If one tree infected with the yellows gets in here, and afterward the disease develops, the duty on foreign fruit can be taken off, for there will be no need of protection; for if the disease spreads with the rapidity it does in the Eastern States, California will have no fruit to protect, and the disease will never be gotten rid of, as there is no cure for it.

"There is more danger of ruining the California fruit industry by importing diseased trees than by removing the tariff. We might recover from the effects of tampering with the tariff, but if the yellows ever gets here, it will come to stay, and California will never recover from its effects.

"Lastly, the districts in the Eastern States where the yellows has appeared were once flourishing orchards, and now are nothing but leafless, bare-limbed trees and trunks. California is so situated that careful espionage should be exercised over every importation, and it is the bounden duty of every citizen interested in the future welfare of the State to keep out all known tree diseases and fruit pests. The fruit interests of California bid fair to become the greatest of all in the world, and from it many families will derive comfortable support in years to come, and some will amass exceeding great wealth. Therefore, these interests deserve, aye, they demand *protection*"

B. M. LELONG, Sec'y.

A Glance at the Olive Belt.

A paper read by REV. C. F. LOOP of Pomona at the Olive Growers' Meeting in San Francisco, July 21.

Having been invited by the Secretary of the State Board of Horticulture to assist at this meeting, in deepening the interest already felt in olive culture in California, I will direct your attention to a few of the many points suggested to our minds by our experience, our observation, and by reading the publications upon this subject, with which we are so highly favored.

Let us then, in the first place, mentally survey the olive belt of the world. Our research would naturally begin in those eastern countries of the old world, in Syria and Greece, where traditions and historical records locate the first olive trees. In the northern hemisphere, the limit of this belt touches the 44th parallel, and in a very few favored locations plantations are found near the 45th. The southern limit, like the isothermal line, varies from the 25th degree down to the 18th. There is also a corresponding belt in the southern hemisphere. You see, then, that this belt or zone is not subject to torrid heat or polar frosts. Being fanned by southern breezes, toned by the invigorating aerial currents of the north, the climatic conditions are most favorable to man in his well directed efforts, in creating his Arcadias, his Elysian fields, and his Gardens of Hesperides.

It is in this belt where the olive grows that you find the artistic ability manifesting itself in immortal creations, sculpture and bronze, of painting and carving. And amidst his fairest gardens man rears the artistic home, the grand and noble structures dedicated to divine worship and monumental fabrics indicative of the highest achievements in human action.

And thus we may traverse this favored belt, going from the charming landscape and garden, the home of the Muses, to the magnificent city, from mainland to lovely islands, whose shores are washed by southern seas, and finding as we go the palate delighted with the most delicious fruits, the eye greeted with the marvelous works of art, and the achievements in architecture, and our ears saluted by the sweetest music in poetry and vocalization.

The cradle of the human family was in this olive belt, and an all-wise Providence, to satisfy the essential wants in alimentation and growth, gave to man the triad, the cereals, the vine and the olive. In his inimitable Hymn of Praise and Thanksgiving, the sweet singer of Israel refers to this gift when he speaks of the "wine that maketh glad the heart of man, oil that maketh his face to shine, and bread which strengtheneth man's heart."

Now, in all the intervening years has there been a substitute found? Could we look to-day upon the hardy laborer of those eastern lands resting to take his midday meal, if he is supplied with bread, with well cured, ripe olives, and a flask of light wine, he is satisfied and happy and prepared to do a strong man's work. This belt includes Italy, the island of Sicily, the southern part of France bordering the Mediterranean, Spain and Portugal, the northern shore of Africa, and parts of those countries bordering upon the eastern shore of the Mediterranean.

Leaving those scenes in the distant east, where the sun first flashed his golden beams upon man in the beginning of his history, following the shores of the Mediterranean to the rock of Gibraltar, we can sail away as Columbus did 400 years ago, to the western world, and landing upon the Pacific coast, in California, we may ask the question, "Are we still in the olive belt?" Without hesitation we answer, yes. And the demonstration is complete, as we look with admiration upon the trees planted 100 years ago by the Franciscan Friars at the Missions, and the results of well directed labor in forming new plantations at Santa Barbara, San Diego and other points, as well as the growing and fruiting of new varieties which we have imported from the shores of the Mediterranean. We are confirmed in our belief, as we look around, that we are not only in the olive belt, but that we have all the conditions necessary, in soil, climate and exposure, between San Diego and Mount Shasta, to rival the fairest and most important olive plantations on the Mediterranean, either in Italy, Spain or France.

If you are not satisfied with my assertion, examine for yourself the red mesas of San Diego, the old and the new plantations along the foothills and in the interior, follow up the San Luis Rey valley and stay over night at the old branch Mission of Pala. There you will see olive trees a century old, and while you will find in the soil all the ingredients necessary to successful cultivation, at midnight in midsummer you will find the air as soft and balmy as at Amalfi and Sorrento, where the olive revels in its luxuriant growth and fruitage. Go over the divide to Temecula and cross the red plains at the west base of the San Jacinto mountains, where water is being carried to transform that vast area into a blooming, fruitful garden. Pass along the base of the mountains from San Bernardino to San Gabriel, stopping at Pomona to examine, not only old trees planted 50 years ago, the new plantations of imported trees, but the nurseries where the olive is propagated more extensively than at any other place in the world. Continue your observation and study in San Fernando valley, in Ventura and the Ojai, in Santa Barbara, San Luis Obispo, in Kern and Fresno counties, and along the foothills of the Sierra until you reach the Wolfskill ranch in the north, and even the foothills of Mount Shasta, and I am sure you will be satisfied with the gently sloping mesas bathed in the warm sunshine and protected by the mountain chain from the cold winds of the desert in winter.

Having found your location for olive culture, you ask: What shall I plant? I will answer this question from my own standpoint. You can ascertain definitely from those who have worked with the Mission olive for 10 or 15 years, and if you are satisfied, plant the Mission. If you would like to try some of the new varieties, I will state for your benefit the fact that it will not be necessary to send abroad for trees. We have imported and propagated from these imported stocks, the varieties which produce the oil bringing the highest price in the London market. If we have the fruit which produces the largest quantity of the finest oil in the world, what more do you want? We have also the trees producing the best and largest fruit for table use. If there is anything more delicious than the white olive of Ascoli, larger than the Santa Catarina, or more satisfactory than a number coming to us under the commercial name of Queen olive of Spain, we have never heard or read of them.

I will give a list of those varieties which I esteem most highly for oil, giving the name under which I received the trees from Senior Rafello Peccori of Florence, who is now esteemed as the most eminent horticulturist in Italy: Razza, Infrantoia, Corregiola, Grossaia, Atrovialacea, Bellmonte, Rossalina, Leccino, Rubra, Uvaria, Piengente, Morenello, and the Picholine I received with the Rubra from Southern France of the eminent horticulturist, J. Audibert, one of the Directors of the National Experiment Station of France at Hyeres. I have also for table use the white olive of Ascoli, the Saint Agostino, the Santa Catarina, the Regalis, and one of the Queen olives named Hispania.

We cannot cause the olive to spring up under our command as did Minerva in the early days of Attic tradition, but with the very best varieties in the world within our reach, we can take the young plant, give it the best conditions, treat it with the care and attention due to a child and a friend, and we will be able to see it grow, developing in beauty and graceful proportions until it rivals the fabled tree of the Acropolis at Athens; and being endowed with longevity, with comparative immortality, it becomes in the plantation the abiding substance, while the owners or masters as the years roll by become the fleeting shadows

You ask why I place the Razza at the head of my list of press olives. I answer, because in Tuscany, where the best Italian oil is made, a given quantity of this fruit yields the largest amount of oil of the finest quality. This variety, under good conditions, has given satisfactory results from time immemorial, and this, with other kinds, will take to our soil and situation like natives, and will, we believe, prove quite as satisfactory here and quite as remunerative as on the hills and plains of Tuscany.

Among the 50 varieties imported into California, quite a large number have already fruited in different locations. Among those which are very promising are: the Rubra, the Uvaria, the Atrovialacea, described in the annual report of the State Board of Horticulture for 1889.

If the native Californian desires the old black olive cultivated by the Moors in Spain under the familiar Arabic name of Acituna, he will find it now in the nurseries under the name of Praecox. As years pass and this industry is promoted and extended throughout the olive belt of this State, it will no doubt be ascertained what varieties are best adapted to the different locations, especially as the map shows us that this belt extends from south to north at least 500 miles.

And to-day we think the prospect is encouraging, as we see capitalists willing and anxious to aid in promoting this industry, and we believe that in a few years California will be able to supply the market of the United States with bottled olives for the table and with pure olive oil. And we hope our respected pioneers, Mr. Cooper and Mr. Kimball, who are with us, will live to see that day and the consumation of their hopes, and, remembering then the day of

small things, when the stranger within their gates asked what those olive trees were planted for, they will be able to exclaim with the Hebrew prophet, with reverend benediction, as they see the pipes of *golden oil* distributed for the alimentation of the people, "Grace, Grace, be unto it."

Transactions of the State Board of Horticulture.

As briefly noticed last week, the annual meeting of the State Board of Horticulture was held in this city July 19th. There were present president Ellwood Cooper, A. Block, Santa Barbara; I. H. Thomas, Visalia; A. F. White, Santa Rosa; Fred C. Miles, Penryn; Frank A. Kimball, National City, and J. L. Mosher, San Jose.

The treasurer reported a total expenditure for the fiscal year of $9687.92, leaving a balance of $312.08 on hand of the $10,000 yearly appropriation. Of the special appropriation of $5000 to defray the expenses of an expert to foreign countries, $4063.65 was expended.

The secretary, B. M. Lelong, reported that 151,000 copies of reports and pamphlets and 31.700 copies of bulletins were issued since the last meeting, and 30,000 copies are in course of distribution. He recommended the enactment of a new law which would cover the defects in the old law, regarding the adulteration of olive oil and products sold under false labels. A law to prevent the wholesale adulteration of fertilizers which are placed upon the market, and which are of less value than sand, was also recommended.

A further suggestion as to the passage of a package law was made. Great quantities of inferior fruit is put upon the market by unprincipled dealers, and sold in boxes bearing the stamp of growers of high-class goods. By this means great injury is done the business of reputable firms. It is proposed to enact a law making it a misdemeanor to use boxes which have another man's stamp on them.

It was decided to hold a convention of California fruit growers in San Jose, from November 15th to 18th inclusive.

The report of the Quarantine Inspectors, shows that from April 30, 1891, to June 30, 1892, 47 steamers, 7 sailing vessels and 23 cars were inspected, as follows:

Steamers from Japan and China	23
Steamers from Australia and New Zealand	12
Steamers from Sandwich Islands	8
Steamers from Central America	4
Sailing vessels from South Sea islands	7
By rail, cars from Eastern States	14
By rail, cars from Southern States	9

Plants and trees inspected in above shipments:

Ornamental plants	74,445
Fruit trees	53,893
Citrus trees	372,700
Citrus trees disinfected	47,700
Citrus trees destroyed	326,500
Fruit trees destroyed	36,225
Ornamental plants destroyed	525
Total number of trees quarantined	53,893
Total number of citrus trees quarantined	372,700
Total number of ornamental plants quarantined	74,445
Total	501,038

President Ellwood Cooper was reelected, Fred C. Mills elected treasurer, and J. L. Mosher, auditor.

ENTOMOLOGICAL.

The Work of the State Board of California.

Quarantine.

The work accomplished in enforcing the horticultural quarantine laws is shown by the report of the Quarantine Officer, Alexander Craw, as follows:

As San Francisco is the principal port of entry for trees and plants coming into the State from the Orient, Australia, New Zealand, the islands of the Pacific and Central America, and as those countries in the past have sent us the most destructive of the pests that now annually cause so much damage to the fruit industry of California, I have given this branch such close personal attention that I have been compelled to let such important matters as the study of the life history of pests, especially those that have never been investigated, remain for the present.

Nearly all the fruit-growing counties of the State have from one to thirty deputies looking out for insect pests, whereas I have this important doorway to attend to alone, besides visiting and giving a general surveillance to most of the counties in their quarantine work. However, I am satisfied that I have done my duty and carried out to the best of my ability the rules and regulations of your honorable board. I cannot say that this has been accomplished without friction or hard feelings, for it is well known that the enforcement of law is bound to give offense to some individuals. The fruit growers and the press of the State have given it their unqualified approval, and even one of the leading horticultural publications of the East, *American Gardening*, has the following in the March number: "The course of the State fruit inspectors of California in seizing diseased fruit trees, shipped by Eastern nurserymen at large expense, has called forth some vigorous protests from the growers, but without effect upon the inspectors. The quarantine against Eastern trees is further justified on the ground that some counties of the Golden State quarantine against others, so anxious are they to prevent the acquisition of any new obstacles to fruit culture. Eastern nurserymen must make up their minds that California horticulturists are wide-awake and are not going to run chances against the importation of any enemies to their fruit-growing industries."

This has the proper American ring to it, and is in marked contrast to some of the silly and shallow threats of retaliation made by some of the Eastern nurserymen because we object to furnishing new quarters for some of their superabundant pests and diseases.

In a general summary since my last report, I will state that as live "mining" scales were found in December upon the Tahiti orange trees that arrived on the 15th of June last, and were held in quarantine on the beach at San Pedro, I addressed a letter to the Attorney-General calling his attention to the fact that the importers of the trees had had ample time to destroy all the scales and had failed, not because of any neglect upon their part, but, in my opinion, because it is impossible to kill this "mining" scale without also killing the trees. I advised that he commence proceedings to have the trees destroyed, as they were a menace to the fruit-growing industry of the State. The case was set for January 28th, and on the evening of January 25th I left for Los Angeles, and arrived there on the evening of the 26th. On the 27th we made an examination of the trees and still found living scale. The following day the case was called before Judge McKinley in Department 6, Judge Waldo M. York appearing for the people. The defendants asked to have the restraining order removed, as they had verbally disposed of the trees to a party that intended planting them in the Salt River valley, Arizona. The motion was denied and the case was proceeded with and occupied that and the following day. On the 30th the court and those interested visited San Pedro and inspected the trees, returning in the evening. On February 2d and 3d it was again heard and arguments set for Monday, the 8th. On the night of the 3d I left Los Angeles for Sacramento to inspect three carloads of Florida grown orange trees, which I found infested with purple scale, *Mytilaspis citricola*. long scale, *Mytilaspis gloverii*, and the chaff scale, *Parlatorii pergandii*. I ordered them fumigated with hydrocyanic acid gas, and to remain in quarantine for 14 days. At the expiration of the specified time, I made another examination and found live scales, and ordered the trees regassed and another 14 days quarantine.

From Sacramento I visited Sutter county, where the County Commissioners had in quarantine a consignment of 2000 plum trees from Alabama infested with root borers. After consultation with the commissioners and importer, the latter decided to destroy the trees.

On December 11th, the Placer County Commission telegraphed the arrival of 14,500 Eastern peach trees at Auburn. I immediately visited there and found root borers, and ordered the trees removed from the State. I allowed time for the importer to correspond with the nurseryman to ascertain if he could dispose of them, and as they refused to do anything in the matter, he burned the entire shipment.

As the important fruit-growing county of Santa Clara (through some local jealousy and antagonism on the part of some fruit growers) had no horticultural commission until the 4th of January last, it was made the dumping-ground for some of the Eastern nurseries, and consequently took a good portion of my time. On December 15th, I quarantined 19,000 Eastern grown peach trees infested with root borers in one of the tree yards, and ordered the trees removed from the State. The importer refused to comply with the order, and brought his lawyer to convince me I had no authority to do so. However, I held my position, and after consultation with the Attorney-General, the latter drew out a complaint against the importer and the Eastern nurserymen for maintaining a public nuisance. I delivered the papers for service at San Jose, but for some reason they were not served. The Horticultural Commissioner saw that the trees were not distributed, and on March 16th I went down to attend to the case, and found that the black aphis had developed upon the trees very seriously. I called the owner's attention to their condition, and gave him two days to destroy the trees, and the next morning he burned the lot.

After a very careful inspection of peach trees in other portions of his yard, we failed to find any trace of the pest. I consider this a most fortunate escape of the Santa Clara valley, and the whole State, from a serious pest.

Another lot of 3000 peach trees was received by another firm in San Jose on January 1st, and upon inspection I found them infested with root borers. The owner remarked that he had no desire to have a quarantine notice served upon him, and so immediately burned the trees, including the packing material. Other small lots have arrived in different portions of the State, and have been attended to.

On March 1st, I received telegrams from Attorney-General Hart and Commissioner Scott at Los Angeles, stating that Judge McKinley had rendered his decision in the Tahiti tree case in favor of the people. This was a very important victory for the fruit growers, and was a source of general congratulation, as they were confident that it would have a salutary effect in the future upon intending importers.

The decision is a very lengthy one, a copy of which (revised by Judge McKinley) I herewith submit.

On March 29th, I was officially advised by Mr. Scott that he had carried out the orders of the Court and cremated the Tahiti trees.

The Japanese stock has required constant attention to see that none of it was removed before every insect was killed. In some cases I found it necessary to destroy the trees.

In February, the Japanese Consul, Mr. S. Chinda, called upon me, at the request of his Government, to ascertain if there was any way that the trees and plants could be disinfected in Japan before shipment to this country, so that they would not be detained in quarantine upon arrival here. I gave him the bulletins and publications of the board to send to his Government, and informed him we would be pleased to have them attend to the disinfection of the stock in Japan, but that that would not guarantee its acceptance here, for it would still be subject to inspection, and, if necessary, disinfection, or possibly destruction.

Three new scales have been received from Japan this season—one upon orange trees, one on peach, and another upon maples. These were destroyed.

Upon a shipment of ornamental plants from Australia, I found a new cottony cushion scale, about one-third the size of the *Icerya purchasi*. The body is jet black; down the center of the back and along the edges of the insect are bands of yellow cotton, giving it a very unique appearance, while the cottony egg sac is plain instead of fluted or corrugated, as in *purchasi*, and is of a slate or dove color.

Some little hard feeling has been raised in several of the counties on account of the wrong identification of some insects or supposed diseases by the inspectors in their zeal to exclude insects upon trees going from one county to another. This state of affairs can hardly be avoided, and is likely to continue as long as some of the counties persist in paying less than laborers' wages to their inspectors.

Three other carloads of Florida orange trees have been received at Sacramento besides those mentioned.

A carload of 48,000 trees arrived in Lancaster, in Los Angeles county, from Seaford, Delaware, and a telegram received from Horticultural Commissioner Scott, dated March 28th, stated that the local inspector A. B. Cox had reported the trees apparently free from insect pests and positively refused to quarantine them; also that the district attorney said that the trees came under my jurisdiction, and as it was left in my hands, I had to go down and attend to the case. I wired "that he attend personally or appoint another inspector." To this I received another dispatch stating that the district attorney maintained that I must attend to Lancaster matter. As the danger was very great and prompt action must be taken before the trees were planted, I went down on March 31st to make a personal inspection. Upon the receipt of the first telegram, I wrote to Commissioner Scott and Inspector Cox to carefully examine the trees for black aphis, for Delaware is one of the four States where this recent and very destructive pest has secured a foothold. Upon arrival, I learned that Mr. Scott and his deputy, Mr. Compere, had examined the trees and found them very seriously infested with the Eastern peach crown borer, *Algeria exitiosa*, and the black aphis, *Aphis persica niger*. The "peach yellows," or the "peach rosette," will not, in my opinion, compare with this pest in destructiveness. It has practically exterminated the peach industry in portions of Australia, and Dr. E. F. Smith, of Washington, reports having seen one nursery of 100,000 trees killed outright in two or three week's time, and having heard of half a dozen other large nurseries that were entirely destroyed or very seriously affected.

The importers of this Lancaster shipment, from what I learned, had taken every precaution to have the trees received and planted before it was brought to the attention of the commissioners. The fact that the land is owned by a company that are under contract to plant it out with trees, and their endeavors to keep the matter quiet, would appear to substantiate the reports. We made an inspection, and found enough to justify the immediate commencement of proceedings in the Superior Court of Los Angeles to have the entire consignment condemned as a nuisance and destroyed. As a portion of the trees had already been planted, the attorney for the people, Waldo M. York, filed an injunction restraining the owners from moving the trees, and the case was set for hearing Monday, April 11th. When called, the defendants, through their attorney, moved for a continuance of two weeks, as it would be impossible to get their evidence from the East in less time, but after hearing a statement from Mr. Scott and me as to the great danger of delay in the matter, Judge McKinley informed them that they must be prepared to proceed with the case in one week (Monday, 18th inst.), and set the following day for hearing my testimony, after which I returned by way of Fresno, where I stopped over to attend to some quarantine business, and arrived on the afternoon of the 14th.

ALEXANDER CRAW,
Quarantine Officer.

FLORIST AND GARDENER.

California Seedling Pelargoniums.

The Santa Cruz *Surf* has an article on seedling pelargoniums which, though it has a sort of a two-edged advertising sword in it, we publish for the floral information it carries:

John T. Sullivan, of the Sea Beach, is a well-known and successful florist. In fact, he was a florist before he was a hotel man, though it has always been in an amateur fashion; and even when he was in the New York postoffice, his love for flowers would find a way of expressing itself.

One of the things which delights him most is the producing of new seedlings among his floral beauties. Since the hotel and grounds have been remodeled, Mr. Sullivan's most pronounced successes have been with the beautiful variety of geranium family known as the pelargoniums. His seedlings of these lovely flowers number up into the hundreds, and many of them are exceptionally choice.

But he has been contented to let them grow and blossom for the pleasure of his guests, and to the latter they have been a constant wonder and delight. No effort has been made to place them on the market or to reap any financial benefit from them.

However, a new Columbus was coming to discover this western world of floral beauty. It was Timothy Ryan, the veteran and experienced florist and nurseryman of Yonkers, N. Y., who has been visiting at the Sea Beach, and whose keen and practiced eye told him that here was a source of profit as well as pleasure.

Mr. James B. Kidd, now of the Sherwood Hall Nursery Company (Timothy Hopkins' place), but lately of the leading firm of seedsmen—J. M. Thorburn & Co. of New York—was also here on Sunday and Monday, and was quite as delighted as Mr. Ryan at the rare "find" in the Sea Beach gardens.

Mr. Sullivan was invited to select some 30 or 40 of the best ones for naming and classification. This will be known as "Sullivan's Santa Cruz collection of pelargoniums." and the plants will be placed upon the market by the Sherwood Hall Company.

It was a very pleasant duty which devolved upon the

two florists, Mr. Sullivan and one or two others to name the beauties—each one a queen in its own right—and it was a difficult task to stop choosing when the "forty" limit had been reached.

However, they were named, and as Santa Cruz will have reason to be proud of the fine collection which will go forth to the world stamped with her name, the list is given herewith. A description of the flowers has not been attempted. They range from the most delicate pearl white and pale mauve to deepest and richest maroon. Some of the varieties are azalea-flowered, others have petals with deeply ruffled edges, and each one is conspicuous for some especial beauty.

Following are the names: Sadie, Lurline, General Goodman, Liberty, Anna, Minnie, Edith May, Sensation, Miss Hopkins, Mrs. McDonald, Mrs. Raymond, Mrs. J. T. Sullivan, Mabel, Commissioner McDonald, Sea Beach Beauty, Mrs. Potter Palmer, Col. Sanborn, Bride of the Morning, Wonder, Gov. Markham, Fanny Dickinson, Mrs. Colbert Meade, Pride of Santa Cruz, Gen. Dimond, Puerto d'Or, Loma Prieta, Mrs. H. R. Judah, Horace Greeley, Thomas L. James, Wm. Elliott, Dr. Gibson, Aurora, Mrs. Rennie, Mrs. Chadbourne, Mrs. Winans, Mrs. H. M. Porter, Midday, Columbus.

Mr. Ryan was so fortunate as to arrive in California in March, thus being able to enjoy the wild flower season at its height of beauty and the roses in their May-time glory. He is enthusiastic in his admiration especially for California's own flower—the eschscholtzia in its wonderful masses. Mr. Ryan says that he fears he has ruined his reputation for veracity among his Eastern friends by the letters he wrote home during the early spring, but when he saw acres and miles of the glowing, golden eschscholtzia, he thought that no more glorious flower could be planted at the gates of Paradise.

THE VINEYARD.

Further Action by the Raisin Growers.

The Fresno *Expositor* gives the following account of the closing proceedings of the raisin producers' meetings, the earlier transactions of which were given in last week's RURAL PRESS:

The committee appointed to draft a memorial to Congress, asking that a duty of 2½ cents a pound be levied on Zante currants, which are now admitted duty free, presented their report and were instructed to draw a memorial in consonance with their report and present it to Congressman Bowers. The following is the report:

WHEREAS, The raisin industry of the United States has grown under the fostering care of Congress to be a great and important industry, in which is invested large capital and giving employment to many thousands of American farmers and laborers; and

Whereas, The Zante currant, a seedling grape, is admitted to our ports of entry free of duty, thus coming in direct competition with the raisin product of our vineyards; and

Whereas, The competition of the Zante currant seriously interferes with and threatens the continued prosperity of the raisin industry in California; therefore be it

Resolved, That we, the raisin producers of California, in general convention assembled, at Fresno, this the 16th day of July, 1892, and representing 26,000 acres, do memoralize and petition the Congress of the United States, at Washington assembled, to levy a duty on imported Zante currants, that shall be the same and equal to that now levied upon imported raisins.

Mr. Van Wormer presented the following resolution:

WHEREAS, For the purpose of uniting more closely the interest of all engaged in the raisin industry and securing a uniform and honest pack, thereby establishing a reputation for California raisins, both at home and abroad, be it

Resolved, By the raisin growers and packers of this State, in convention assembled, that the chairman, by the advice and consent of those interested in this industry, appoint a committee of nine or more names of experience in the raisin business to formulate a plan by which the objects mentioned above may be secured, and to further and mature some plan for the appointment of a raisin inspector, working under State authority.

The resolution and the matter of forming a permanent State organization were referred to the executive committee.

The following names were read as the State executive committee:

D. T. Fowler, Alexander Gordon, Miss Hatch, W. N. Van Wormer, W. N. Oothout, John S. Dore, Colonel Trevelyn of Fresno; F. Winstanley of Etiwanda, San Bernardino county; G. M. Hawley of El Cajon, San Diego county; E. Sanborn of Tulare county; H. W. Byron of Lemoore, Tulare county; M. Murdock of College City; L. S. Harmon of Rosedale, Kern county; E. L. Hooper of Merced county; J. Maxwell of Yolo; D. M. Pyle of Kern; P. Y. Baker of Tulare; W. S. Porter of Hanford; B. A. Bateman of Hanford; C. P. Irwin of Hanford.

John S. Dore moved that it is the sense of this body that a committee be appointed to confer with the packers for the purpose of securing better railroad rates on raisins.

The motion was carried.

Mr. Applegarth said that the growers wanted a rate of not more than one cent per pound from Fresno to the East.

E. G. Chaddock read a resolution adopted by the conference committee, expressing it as the sense of the committee that $1 per 100 pounds would be a fair rate of freight.

This was unanimously carried.

The following named were elected on the committee on railroad transportation: D. M. Pyle of Kern; W. S. Porter of Hanford; Alexander Gordon of Fresno, and D. T. Fowler of Fresno.

On motion of Mr. LaRue, it was decided to meet again on July 30th, at 10 A. M., and that the executive committee shall meet immediately after the adjournment.

Grape Cuttings and Their Treatment.

F. T. H. of Bishop, Inyo county, writes of local practices with grape cuttings, to the *Rural New Yorker*, as follows:

1. We propagate by cuttings, which can be bought at $1 to $1.25 per 1000, or one can go on a vineyard and cut his own cuttings, if he undertakes to clean up the brush after him.

2. The vines are pruned from February 1st to the end of March, and the cuttings are taken directly afterward.

3. The length of the cuttings will depend on the variety and distances of the buds apart. Those from the Muscat Muscatelle, English Alexandria, etc., are from 10 inches to 14 inches; those from the Malaga and long-jointed vines from 12 to 18 inches. When the cuttings are cut, they are tied in bundles of 100, and a trench 3½ to 4 feet deep is dug in a moist, cool place, and the cuttings are put in and covered as deep as possible. About the middle of March we begin to set them to root. For planting I like sandy land, as they grow better and have more roots there than in heavier soils. When the land has been well plowed and allowed to settle, plow three furrows with a 12-inch plow at about one-fourth the width of the field, and deepen the last furrow with an Oliver B. V. vineyard plow. Do the same at the same distance from the other side. While the team is plowing in the second land, three men will be able to plant the first. When that is planted the team comes to cover the vines, which are two inches apart and with one bud above the surface, plowing three furrows around the land and deepening as before, while the men plant the other land, and so on. When the vines are planted out for a vineyard the holes are dug and the vines put in immediately, at a distance of 8 or 10 feet each way.

4. Here they do not use trellises for vineyards. Most of the raisin grapes are cultivated to a height of two feet from the ground and the wine grapes to four feet in height. The Sultana and white wine grapes are cultivated high, are tied to 2x2-inch cedar stakes about eight feet out of the ground, so that the land can be plowed and cross-plowed until the grapes are matured. Here there is no snow at any time and no rain during May, June, July, August, September and October, and the vines have to be irrigated every month.

THE STOCK YARD.

Bulls, Their Value.

How often have we urged dairymen to secure the best bulls, regardless of cost. "Buy a bull," was the quaint but very pertinent reply once given in a Wisconsin Dairymen's Convention to the question, "How to Start a Dairy?" If the logic of facts can teach anything, our readers ought to know that dairymen are keeping many of their cows at a positive loss. We venture to say that one-third of the cows in any State of this Union do not pay for their board and lodging. If these were selected out and killed and buried, the profits of dairying would be materially increased. We may safely make the statement more personal, and say that every dairyman has cows in his herd that consume more than they return. What other business would stand such a drain?

The above is from *Hoard's Dairyman*, and we feel confident that the advice given is not based upon theory, but upon proof that can be brought forward by every intelligent dairyman who is an observer of facts and their causes.

For the breeder of beef cattle, as well as he who breeds for the dairy, it is false economy to buy a low-priced and inferior bull.

Buy the best bull you can get, is sound, practical advice that has been, from time to time, given in the columns of the RURAL by some of our correspondents. A few dollars, or a hundred dollars, more or less, counts for little between a good bull and a middling one, not to say inferior, when one is sure of getting what will answer his purpose for breeding.

There are many who do not consider the difference between buying the cows to start a herd with and the bull to use, in that, with the former, each one has an influence on her own individual progeny only, while the latter, for good or bad, stamps his own peculiar characteristics on the calf of every cow.

A bull that is good in every point, as a bull to head a herd ought to be, and descended through several generations of good animals on both sides, will be sure to have a beneficial influence on any herd upon which he is used, increasing its value as far as that influence has been brought to bear upon the younger portion of the herd, whereas exactly the contrary results are obtained from the use of an inferior one that is lacking in any desirable quality, whether of individual merit or pedigree. In fact, the use of the best bull means gain at every point and the use of one not so good, loss.

This is ably illustrated in an article by A. Devereux in Deposit (N. Y.) *Courier*, and reprinted in *Hoard's Dairyman*.

Mr. Devereux has for his subject, "Poor, Good and Extra Cows," in which he gives his experience in weighing the products of his own herd of 70 cows, which he divides into three classes, viz., 27 extra, which made an average of 364 pounds of butter each; 20 good, which made 260 pounds each, and 23 poor, including some heifers, which produced 139 pounds each.

On the basis of the above products he reckons that his best cow, which made 646 pounds of butter, made a profit of $120.50 for the year and the poorest cow a loss of $12.75.

This, however, is based on the assumption that the cows were all fed alike, which, if so, must be put down to bad management, which we cannot think of one being guilty of who takes so much trouble to get at the separate value of the product of each cow or class of cows.

It is both natural and right that the cows which made 364 pounds of butter a year should be fed more than those which averaged only 113 pounds, or less than one-third that of the extra good ones.

In the ordinary management of dairies the cows giving most milk are fed more and better food than those giving a smaller quantity.

Taking the dairy as a whole, Mr. Devereux puts the cost of food for each cow at $41 for the year, and says: "The 27 extra cows would show a profit of $50 each, the good cows a profit of $24 each, and the 23 poor cows a loss of $9.25 each.

"These figures show that we would have made more money with the 47 best cows than we did with the whole dairy of 70. These figures teach a lesson to every butter maker that ought to be profitable. They are not founded on guesswork, but from actual weights of milk and tests of each cow.

"If I am asked how to improve the common dairies of the farmer, I must say, as has been said a thousand times before, secure the best bull you can."

All the extra cows were by one bull, since using which Mr. D. says he has purchased several others, but has never secured the equal of that one as a butter bull, and says: "I fear that I have been too careful as to price, thinking that I could secure a good animal for $100 when, if I had paid $1000 for a bull equal to Lord Broome (sire of the extra cows), he would have been a very cheap investment."

THE APIARY.

The Development of Bee Culture.

Prof. A. J. Cook, now of the Michigan Agricultural College, but who is soon to become a resident of Southern California, gives the following suggestive review:

It is doubtful if any manual labor pursuit can show as rapid and substantial progress for the last 50 years as can bee-keeping. The whole business, methods, manipulation, and entire care and management of bees have been totally revolutionized. Fifty years ago the old box hive, or "straw skep," or "bee gum," or very likely the old salt barrel, served for hives. Comb honey was produced in the body of the hive, or, possibly, in large boxes on top of the hive, and was generally a combination of honey, bee bread, and, possibly, young bees. Then all liquid honey was strained, and was an extract of the above. Then there were no bee books worthy of the name, for Langstroth and Quinby had not yet taken their pens to record the marvels of the hive, and the improved methods of honey production. Then the only literature was Huber and other foreign works, which were very rare in American libraries. Even the agricultural press was almost silent on this subject. The whole business was so rudely carried on, and so restricted in its limits, that the most enterprising editor could not get information that would be helpful to his readers. Then the words, movable frame hives, sections, honey extractors, comb foundations, supers, not to speak of queen cages, bee escapes, smokers, etc., were entirely unknown.

THE MOVABLE-FRAME HIVE.—The movable frame hive, the invention of the scholarly Langstroth, is not yet 40 years old. This at once revealed the marvels of the bee world to every observing bee keeper. He no longer worked in the dark; he could look in upon the entire economy of the hive, and knew the needs and conditions of his bees as truly as the farmer could know of the thrift or unthrift of his horses or cattle. Of course this meant revolution, and bee-keeping at once changed from a happy-go-lucky pursuit to one that was largely under the control of the bee-keeper. Soon the excellent books, "Quinby's Mysteries of Bee-Keeping" and "Langstroth on the Honey Bee," came to explain the new and better methods. The first gave, in plain, simple style, the methods of one of the most practical and successful beekeepers that America ever produced. The other was a veritable classic. It gave, in most elegant diction, not only the marvels connected with the natural history of the bee, but pointed out the path, through a study of the bee's habits and history, to a better and more successful system of bee management. Thus the revolution in bee-keeping methods was quick to spread, and soon every State, and very many counties, had beekeepers who not only knew but practiced the best that was taught in this fascinating field of work. About 20 years ago our first bee associations were formed. To-day we have hundreds of these organizations, even single States having well nigh a score. The National Association is very vigorous and influential.

THE HONEY EXTRACTOR.—About 25 years ago Germany gave us the suggestion of the honey extractor. The inventive genius of Americans had no sooner secured the idea than they hastened to change the rude instrument into the perfect machines in use to-day. These give us the beautiful extracted honey, which is just as excellent, perhaps more wholesome and digestible than is even the immaculate comb honey. By this means we have nearly twice as much honey as we can secure in the comb, and the increase tends greatly to lessen the prices of this incomparable sweet. Thus we have another revolution which cheapens honey, and at the same time takes away none of its excellence. The extractor also prevents swarming, one of the things that the beekeeper desires to control, but knows no sure way except by use of this valuable machine.

COMB FOUNDATION AND OTHER IMPROVEMENTS.—Soon after the invention of the extractor, Germany again came to the front with comb foundation. This article was so improved in America that it became hardly second to the extractor as a valuable adjunct in the bee yard. With this we get only worker combs, which are straight and true, and secure a much larger and finer product from our apiaries. Even before these last improvements, the smaller sections became favorites, and before the foundation was in full use we also had the white poplar sections, which hold a pound of comb honey, all so white, so neat and so clean, that to show them is to sell them. Thus, though the honey product is increased from thousands to millions of pounds,

the markets are not overstocked. People admired and desired honey before; now they regard it as one of the most attractive luxuries of the table. To-day we have our queen excluders, so that no bee bread is stored and no breeding done where we secure our comb honey. To these have been added the bee escape, bee tent and smoker, so that we can manipulate our bees as safely and as easily as we can manage the most docile horse.

BREEDING.—The science which has ever kept the lead of practice in bee culture has discovered that the laws of breeding hold just as truly among bees as among our higher animals, that there is quality among bees, and that by selection we may greatly improve our honey bees. Thus queen-rearing, a thing entirely unthought of 50 years ago, is now an industry in itself, and bees are bred with all the care and success that waits on the best breeders of horses or cattle. More than this, these queens are shipped around the world. Men have studied out the requirements, so that now we have cages and food that make it safe to send bees to Australia and Japan.

WINTERING AND DISEASES.—Twenty-five years ago, the matter of wintering bees was a sore puzzle. Thousands of colonies were often lost in a single winter, but now, thanks to hard study and thought, we have almost no dread of winter. Again, the deadly microbe attacked the bees. This is a sort of cholera that is terribly contagious and as terribly fatal. Yet our bee keepers have studied out the nature of this malady, and to-day we know how to stay this "foul" brood, which is one of the most virulent of maladies.

ONE BARRIER TO CERTAIN SUCCESS.—There is just one serious impediment in the way of perfect success in bee-keeping. As yet, we do not know how to secure honey when the flowers do not secrete nectar. For the past few years the honey seasons have been very poor, and in most sections of the country the honey crop has been very disappointing. Whether the keen eyes of science or practice, or both, will ever discover a way to remove this one remaining barrier to certain success remains to be seen.

BEES AND FERTILIZATION OF FLOWERS.—One aspect of bee-keeping in which the farmer and fruit grower may well take a deep interest is the necessity of bees in the fertilization of the flowers of most of our fruits. We positively know to-day that bees not only give us honey, but, in gathering the nectar from the flowers, they perform a most valuable service, without which a full or even profitable fruitage cannot be expected or hoped for. Thus the importance of bee-keeping becomes greatly augmented. We see that Nature is a grand whole, that each part is in some way related to every other part, so that failure in one line often means general failure. We have in apiculture a fine illustration of this truth. Agriculture, the hope of our country, can only attain the highest development through the success of apiculture. As the bees must have the flowers, so the flowers must have the bees.

SCIENCE AND ART IN BEE-KEEPING.—Bee-keeping combines science and art as do few manual labor pursuits The progressive beekeeper must understand the natural history of bees, and, therefore, he must be a student and a thinker. He must use constantly his best mental faculties as well as brawn. Thought and study, when combined with physical effort, bring real satisfaction and insure enthusiasm. Thus the beekeeper is a student and an enthusiast, and is mentally very wide-awake. He is prepared to lay hold of new and better methods, which are sure to be suggested to the man who is mentally alert, to see all there is in and about his business that will help him to a higher position. This explains the fact that hardly a year goes by without some new method or device which is fairly revolutionary in its influence on bee-keeping practice.

TRACK AND FARM.

Suggestions on Hitching Up.

A writer for the *Country Gentleman* remarks that there is no farmer's boy ten years old who would not make an affirmative reply with some indignation if he were asked whether he could hitch up a horse; but there is many a man both on and off the farm who does not know when a horse is properly hitched up, and no work of the average farm hand needs the final review of the owner's eye more than this, whether the horse goes to plow, wagon or carriage. In adjusting different horses to different harness and different tools, the comparative importance of the neck-yoke straps, or chains, the hold-backs, the traces, the collar and the belly-band, according to the work to be done, must be perfectly realized in order that the horse or team may work to the best advantage without chafing, galling or injury.

In a wagon with a stiff tongue, where the chains are intended solely to hold back by and should swing quite loosely except when going down hill, a man will often shorten them up (probably with the idea that it looks neat and trim) so that the weight of the tongue and a portion of the load hangs constantly on the horses' necks, and every time a wheel strikes a stone in the road, the tongue whips around and wrenches the horses at the top of the collar or on the shoulders, and very soon there is galling, a running sore, followed by blister and scar which disfigure the horse permanently. For a working team, the adjustment of the belly-band is unimportant if the saddle is flexible, unless it carries cross-straps attached to the breeching to hold back by, when of course it should be tight; but with a stiff saddle, whether for wagon or carriage, single horse or team, the belly-band must be tight to avoid rubbing, and sore back and wither. And for a single horse the outside or shaft belly-band must be as tight as it can be drawn without springing the shafts in, so there will be no rapping on the shoulders or poking of the shafts skyward when going down hill, for this strap is an accessory to the breeching and must hold the shafts down to make that efficient. A careless man is most apt to show his fault with this and the hold-back or quarter-strap. Often the latter is made so tight that the horse cannot move his limbs freely, and in a very short time the breeching wears all the hair off where it hangs. It has repeatedly been within my personal experience, after starting from home with a horse hitched up by a hand, to stop and let out the quarter-straps two holes on each side, giving fully six inches more play to the breeching. When traveling on level ground with the traces stretched, the breeching ought not to touch the horse's legs, except in a lengthy stride, and then not enough to rub him or impede his motion, and if the shafts are properly held down by the belly-band, the breeching will perform its office on a down grade well enough when it is quite loose on a level.

The tendency in building vehicles now for light driving is to curve the shafts up and bring the draft nearly on a line with the body. This throws the cross-bar and single-tree high, and admits of the horse being hitched back close to his load, which gives him great advantage in ease of pulling and prevention of side motion. In either light driving or draft work it is desirable to have the traces as short as they can be, allowing the horse's legs to work clear of the cross-bar. To strike it would be alarming to most high-strung horses. That expert horseman and intelligent lover of the horse, the Rev. W. H. H. Murray, advises that all horses be taught to hold back the load without breeching, so in case of the breaking of a quarter-strap they will not become frantic and want to run away. A little patience will suffice to bring almost any horse to this state of discipline. In fact, horses might be taught a great many more useful things than they usually are. We are progressing in this direction, however, and it is something that professional trainers usually speak of "teaching" or "educating" horses instead of "breaking" them.

The old-fashioned "breaking" process is somewhat out of favor. The writer has a childish recollection of seeing this process employed in its most horrid simplicity in this wise: On a farm where I was visiting was a colt, slight and small, but having reached the age of three years it was thought she ought to be "broke;" and one of the sons of the family—a stalwart man of over six feet, and more than 200 pounds weight—announced that he meant to do it. Never having had a strap of harness on her, the little creature was backed into a corner of the stable, and the breaker, with the aid of two men, succeeded in getting the saddle and bridle on her. Then the breaker, armed with a "black-snake" wagon whip, threw himself into the saddle, and at the first lunge of the colt for freedom began to ply his whip with all his strength, and drew blood freely from belly and flanks before the colt abandoned her rearing and plunging for a straight-ahead run. This was what the rider wanted, but he probably thought it necessary to inflict a certain amount of punishment in order to prove his mastery, for as far as the two could be seen flying down the road, every leap was accompanied by a stroke of the whip. In the course of an hour the big brute came riding back, and the little one covered with dust and sweat and blood was glad to drag her weary limbs in a walk under her heavy burden. Then the former announced that the colt was "broke." The owner of the farm was an intelligent farmer and an educated physician, but to my childish surprise and indignation neither he nor any of the other men who were looking on seemed to think there was anything to criticize in this method of "breaking." This was many years ago, and more reasonable ways are now almost universally in use, thank the Lord!

The use of a collar instead of a breast-strap with a heavy one-horse carriage has become quite common in city driving, and it is a fashion that deserves to be encouraged. The breast-strap is light, and a horse looks better with it when he is in a light vehicle, but it is out of place when he has a heavy load to draw. When I see a horse drawing a two-seated carriage with four persons in, by hames and traces on a well-padded collar fitting snugly against his shoulders, I think he has a visible air of content on his face, as if he knew he was rightly equipped for his work. More especially is this the case if he carries a natural head, without check or bearing rein, and his large, expressive eyes are not covered by blinds. I believe any horse that is well enough bred to be called a carriage horse, and is properly trained, will look better and go easier without a gag or check-rein. He may not carry his nose straight out in the air, or hold his head back until the muscles of his neck swell with the tension, as some like to see him, but he will look more natural and graceful and be less apt to stumble. Let the trainer at the beginning pull his head up with the snaffle every few steps, by extra lines running through the side gags of the bridle, and the horse will soon learn to carry up when in motion. But of all useless and abominable and indefensible pieces of harness, the blinds or blinkers are the worst. Why any one should want to cover up the most expressive and beautiful feature of a fine horse with a square piece of leather, it is hard to see, and why in harness more than under saddle! If nature had intended that he should only see straight ahead, she would probably have placed his eyes on the end of his nose; but as she intended him to look before and behind and on all sides (if man would let him), she placed them where they are. The idea that partly covering his eyes and restricting his range of vision makes him safer and less apt to scare, seems queer indeed. It would certainly appear more reasonable that he should be scared when familiar objects are distorted and assume strange shapes by a partial glimpse of them, or when things that are new appear grotesque and fearful for the same reason, when if fully seen they would scarcely excite curiosity. It is sometimes said that a horse in an open bridle will become lazy by watching when the whip is ready for use and when it is not. It may generally be said that a lazy horse is the fault of a lazy driver. If the horse is kept well in hand, and held up to his work by an alert and watchful driver, he will not be lazy unless of a very sluggish disposition. By all means, give your horse an open bridle for carriage, wagon or plow, as well as for saddle work. He will enjoy it, and you will take more pride in looking at him.

THE FIELD.

A Large Wheat Farm in Yolo County.

In company with M. Diggs, a representative of the Woodland *Democrat* recently made a visit to the scene of the farming operations of W. C. Curtis, who is farming more extensively than any other Yoloite this season.

A few miles north of Yolo we first reached the Curtis possessions. After striking the first grain on what is known as the Kaye ranch, a person may ride due north a distance of 10 miles without once leaving an immense grain field, which is one solid body of as good wheat as can be found in California. During our trip we viewed about 5000 acres, and there was not a spot in it where the yield will be less than 15 sacks to the acre. On Grand Island, Mr. Curtis has about 4000 acres which were attacked by smut, and the yield was cut short in consequence at least half. But taken altogether, the crop will be a magnificent one, and Mr. Curtis will have a big balance on the credit side of his ledger when the season's operations are over. He has already purchased 100,000 sacks, and about 60,000 more will be required. The wheat is plump and heavy and weighs from 138 to 140 pounds to the sack. But for the rust on Grand Island, Mr. Curtis thinks that his sack purchases would have amounted to 200,000.

It is all winter-sown. There is not a single acre of summer-fallowed grain in the entire field, and the manner in which a great deal of it was put in, is calculated to upset the theory of some farmers that deep plowing is necessary to insure a big crop. When some of the neighbors saw Mr. Curtis sowing 5000 acres of grain on unplowed land and covering the seed with a Randall harrow, they freely expressed the opinion that it would never come up, and that all the seed, labor and expense represented so much capital that would be thrown away. In view of these gloomy forebodings, the result is both surprising and extremely gratifying.

Of course, a large force of men and horses was necessary in order to seed such a large area of land, and now that the harvest season is at hand the number of men employed has been increased to 75 and the horses to 150. Many more of the latter would be necessary but for the fact that by the introduction of steam as a motive power, the necessity for at least 150 horses has been done away with.

Mr. Curtis has seven combined harvesters and two headers at work. Of the harvesters, three are propelled by horse power and four by steam. One of the engines pulls the big Berry separator which cuts 32 feet, and was manufactured at Benecia. It is roofed with corrugated iron, and viewed at a distance has the appearance of a building on wheels and in motion.

A Preble separator is propelled by a Laufenberg engine, and has a capacity of 16 feet. A Pitts engine hauls a Holt harvester, which also cuts 16 feet. The three harvesters hauled by horses each cut 16 feet and require 26 animals.

A Holt engine and separator commenced work on the farm Monday morning. Mr. Curtis has not purchased the outfit, but pays the Holt Brothers so much an acre. He is quite enthusiastic in his praise of it, however, and says the engine is better than any of his own, and the separator has one advantage over all others. It is provided with a small engine by which the machinery continues in operation even after the road wagon has been stopped. When a clog is about to occur it is not, therefore, necessary to stop all the machinery and remove the straw by hand. The road wagon is stopped, but the small engine continues to run the separator and the mass of straw is cleared away in a few minutes. The test Monday and Tuesday was a very hard one, but it was entirely satisfactory. In many spots the grain was almost flat, but the harvester lifted it better than it could have been done by a header, and the waste was comparatively small.

The engines move at the rate of about 2½ miles an hour, and they consume from 1500 to 1600 pounds of coal per day. The smokestacks are protected by twilled wire cloth, so that it is impossible for sparks to escape. The engines are never cleaned except when they are standing still, and a tank of water beneath the door of the furnace reduces the danger from fire to a minimum. The separators hauled by the engines thrash from 350 to 700 sacks per day, according to size. The harvesters cut in lands, and where some of them were operating Tuesday, it was six miles around from start to finish. Occasionally, there is a delay of an hour or two in starting in the morning, on account of the dew, but there has been but little delay otherwise. One of the engines has lost but half a day in 22, and none of them have lost to exceed a day and a half.

At the beginning of the season, Mr. Curtis procured a policy of insurance for $100,000 on the Kaye ranch of 5000 acres. As fast as a block of wheat is harvested, the insurance is cancelled and transferred to another block. For instance, when a thousand acres of wheat had been cut last week, the insurance was transferred to an equal number of acres of the Grand Island ranch. This item of expense is no small matter, but it is necessary, for if a fire should once break out in such a vast field of rank grain, especially while a high wind prevails, it would be absolutely uncontrollable. Not a single precaution to prevent fire is neglected. No smoking in the field is permitted, and two watchmen patrol the fields during the night.

A Citizens' World's Fair Association has been formed at Santa Maria, Santa Barbara connty. The work was segregated, and committees appointed on dairy products, minerals, cereals, fruits, vegetables, mill products, soil, nuts, honey, grasses, machinery, inventions, native flowers and plants.

In Orange county the Board of Supervisors is virtually in charge of World's Fair work. All expenses incurred are to be paid directly by them, but in order to facilitate the collection and preparation of exhibits, a World's Fair Association has been formed.

THE HOME CIRCLE.

A School Idyl.

Ram it in, cram it in,
Children's heads are hollow;
Slam it in, jam it in,
Still there's more to follow—
Hygiene and history,
Astronomic mystery,
Algebra, histology,
Latin, etymology,
Botany, geometry,
Greek and trigonometry—
Ram it in, cram it in,
Children's heads are hollow.

Rap it it in, tap it in,
What are teachers paid for?
Bang it in, slam it in,
What are children made for?
Ancient archæology,
Aryan philology,
Prosody, zoology,
Physics, clinictology,
Calculus and mathematics,
Rhetoric and hydrostatics—
Hoax it in, coax it in,
Children's heads are hollow.

Scold it in, mold it in,
All that they can swallow;
Fold it in, hold it in,
Still there's more to follow.
Faces pinched, sad and pale,
Tell the same undying tale—
Tell of moments robbed from sleep,
Meals untasted, studies deep,
Those who've passed the furnace through,
With aching brow, will tell to you
How the teacher cramed it it in,
Rammed it in, jammed it in,
Crunched it in, punched it in,
Rubbed it in, clubbed it in,
Pressed it in, caressed it in,
Rapped it in, and slapped it in,
When their heads were hollow.

—Puck.

The Whitebrow Family.

Written for the RURAL PRESS by DUANE MORLEY.

"David, you must finish digging the potatoes tu-day and get in the remainder of the winter apples, and du not forget to turn the cows into the back pasture nor tu work up some firewood, for I shall want a good fire when I come home tu-night. Oh, yes, there are a few turnips left tu dig in the west garden."

In a moment more the boy was out of sight, in the direction of the barn and potato field, to execute the orders that Luther Whitebrow, his father, had just given him.

"Luther, you are loading that boy down with hard work," said Mary Whitebrow, the wife and mother.

Whitebrow's answer was: "I calkilate I had tu work when I was a boy; worked for my father right along until I was of age, an' my father was a worker, I tell ye—took the lead of all his men all the time."

"That is where the difference is, husband; for you leave the work for David to do, nearly all of it, while you are off after some horse speculation."

"Wal, Mary, if I didn't du somethin' 'sides work this yeller pine soil, I guess nothin' would come; an' what little there is left tu dig an draw in 'll not hurt David, I guess."

"Yes, Luther; but David is our only child, and everything shouldn't be left for him to do."

"Wal, I don't believe in bringin' him up no-account, makin' a pet of him, if he is an only child; he's strong an' healthy, never's sick a day, an' can du what there is tu du."

This was one of the talks the parents had together about their boy, and it was evident that there was a measure of disagreement between them respecting the way he should be treated.

At another time the talk was after this fashion:

"Do you know," said the mother, "that David is very bright?"

"No, hadn't noticed," replied Whitebrow. "David is a good boy, an earnest worker—why, yes, come tu think, he's bright an' its most school time again—near December. I hope David 'll du well this winter."

"Luther, we ought to send David to college."

"Pshaw, wife, not yet; he hasn't learned all the teacher can learn him, an' sides that, the money it would take tu send David away to college must go on the mortgage. The winter term will du David for a year or so, wife."

Mrs. Whitebrow had, as is too frequently the case with mothers, an exaggerated idea of her son's mental ability, and she was anxious for David to receive college training, and after that, to prepare for the ministry. But Whitebrow more nearly understood his son's capabilities. and was carried away by no extraordinary hopes or desires.

The soil of Whitebrow's State of Maine farm was thin and poor, and a mortgage was plastered on every acre of it; so it was all he could do to keep the interest paid and the obligation within bounds. Even that he could not have done had he not made an occasional safe investment and speculation in horseflesh. His natural tendency was toward "stock," and again and again did he try to seed down the shifting sands of the place to clover, hoping in the end to make of it a stock farm; but his every effort failed, for the grass roots either froze out or the sun scorched then out. As a member of the Fair Association, it was true, as reported, that Whitebrow spent considerable time talking horse, and he even went so far as to train one or more of his colts on the track to arrive at its speed. And still more officious neighbors, who should have spent the time minding their own affairs, carried exaggerated reports of Whitebrow's doings to the wife.

It was Whitebrow's purpose to increase his son's educational facilities as soon as he had, in a measure, reduced the incumbrance, or exchanged the farm for a smaller one less incumbered. Either was difficult to do; and, as time passed, neither was accomplished. Then the sensitive wife brooded over fancied wrongs and exaggerated hardships, declaring herself, somewhat openly, as "martyred" and her son "neglected." After awhile there were storms and criminations, the wife averring that her husband was a common horse-jockey, turf-gambler and drinker. This, and his neighbors' interference, aroused Whitebrow's independence of spirit; and, between the sunrise of a day and the sunsetting of the same, he made one supreme effort, thereby disposing of a promising thoroughbred colt and a pair of ordinary two-year-olds; applying the proceeds of the sale upon the interest part of the mortgage. From an acquaintance who had confidence in Whitebrow's honesty and native shrewdness, Whitebrow succeeded in borrowing enough money to ticket himself to California, besides a portion to leave with his wife and son.

With capital, a shrewd man can accomplish much in a short space of time; without it, and in a new section of country as Whitebrow was, the success is uncertain and slow. So it was with Whitebrow in his newer field of endeavor; and, as the local phrase has it, he was "cinched" by sharpers and victimized by irresponsible portions of the ever-shifting population. Himself an adventurer, about all that he could do for his home folks was to send them a small sum quarterly or semi-annually for their personal wants, besides enough to keep the interest on the mortgage paid.

Did the farm contribute anything? may be asked. Oh, yes, something, under the management of the mother and her boy; but, inflated with the idea of a college education and its vaunted advantage in the life-race, and out from under the father's watchful eye, David became careless, while his mother became disheartened and irritable. And, as years passed, chasing one another like cloud-shadows across the fields, she recognized and denominated herself as "The Forsaken." Slight, sometimes, are the causes of alienation and separation, and potent as they are slight; but, could Mrs. Whitebrow—in time, and void of selfishness—have had sufficient discernment, the results might have been different. Eventually the boy received his college education; but the crops from the fields were scant in quantity and poor in quality, and as the months and years yet rolled by, the buildings became shaky and dilapidated. Then the boy blossomed out into a full-blown preacher, to dispense the Word with some grace and more or less unction. And the farm—as a natural sequence—became the stamping ground and stopping place of every preacher of the connection who had occasion to pass that way. And like all other young preachers of that denomination, David had to undergo the starving process, whether as a matter of faith-education or of official control is as yet unknown. Then, too, his elders decided—for prudential as well as for other reasons—that he should marry. So, in time, Mrs. Whitebrow had under her hovering wing a delicate, gentle-spirited daughter-in-law.

I am sorry that I cannot chronicle David's rapid advancement, but I cannot, for such was not the fact—he still starved. And his latest charge was rendered doubly difficult by reason, first, of its great breadth; and second, by the encroachments of a certain proselyting preacher upon the membership at one of his principal appointments; and he was horse-less, carriage-less, without a library, and had, besides, agnosticism and all manner of scientific questions to confront. Poor David! he needed his great namesake's unfaltering faith and invincible courage.

Latterly, the senior Whitebrow's communications had been none too well received at the farm, though there were in them cash remittances. More recently still, a friend of his—a lawyer in a distant city—undertook, in person, that duty. And one day he searched out the mortgage, redeemed the farm from its deep indebtedness, and placed, besides, in the hands of Mrs. Whitebrow, a goodly sum for her own especial use and nourishment. But no word from Whitebrow; then speculation was rife in the woman's mind as to the real intent of the action. It seemed an augury of Whitebrow's return, but eventually she considered it to be his last message. One day, travel-stained and weary, David drew up at his mother's door. Somehow the mail had miscarried, and no word had reached him of the payment of the mortgage. David's call was one of business, hoping that, by his mother's assistance, some way could be devised whereby he could obtain a horse and carriage sufficient for his needs. His parishoners, though clever, were poor, and the horses loaned him were usually overworked, and proved to be more of a hindrance than a help. The back door of the farmhouse stood open as David and his mother sat inside discussing his necessity and devising the means of satisfying it.

Said Mrs. Whitebrow: "The lawyer who came over and satisfied the mortgage left me a sum of money for my own especial use, and I had to sign a receipt to that effect; but I can take that money, David, and buy you a horse and carriage."

Just then a voice interrupted: "Ye needn't du any sech a thing, Mary; that money's yourn. I've got quite a band of thurrerbreds from Kern county, Californy, comin' in on the railroad tumorrer, an' amongst the lot is a fine carriage span fer David, an' a carriage tu—the best I could rake up in the city. An' there's a parson feller tu that came with me on the overland that can jest knock the headlights off of any agnostic that ever breathed, an' spill the dish besides, for that water-sopper that is sneakin' David's members intu his own fold. David an' this feller-preacher of mine can take turn about a dosin' out the milk and meat of the Word. In New York, he an' I spent tu hull days a pickin' out theology an' science books for the boy—about three thousan' dollars' worth, an' a whole raft of biblical maps an' charts. I hain't forgot ye, David, if I have been a long time gone from home."

It was Whitebrow's voice, he himself, standing in the open farmhouse door. Catching breath and clearing his throat, he started in again:

"Give me a bite o' somethin' tu eat, Mary, an' a blanket tu roll up in in the barn until tu morrer, an' I'll be obliged. I've learnt to rough it, stack up twenty-dollar pieces, an' gether in thurrerbreds, an' when my men an' stock come up tu morrer we'll start in on a year's campaign that'll make 'Ol' Sandy,' as I used tu call her, shine. I've got all manner o' grass an' grain seeds, one o' my men's an engineer, an' on the north slope we'll bore for artesian water. When that comes spoutin' up, it'll settle the question o' seedin' down, I guess."

Some months afterward, a neighbor some distance out interviewed one a little closer in asking how Luther Whitebrow stood on the question of religion. "Has he got it?" were the words. "I don't know whether he has got religion or not," was the reply, "but he has christianity, that I am certain of. You knew Sile Perkins?" "Yes, him we called 'poor Perk' from Hiram Falls way—wife an' six children." "Wal, Whitebrow's bought out widder Joneses twenty-acre strip near his old farm, an' sold it again to Sile on long time, so's he can pay for it, an' he receipted the first payment free an' gives Sile stiddy work among his thurrerbreds at good pay; an', too, there ain't a tramp goin' that way that isn't fed an' sheltered. The Bible says somethin' about bein' doers of the Word. I calkilate Lute Whitebrow's a doer for he *does*."

"How about David?" "Oh, David's doin' fine now with his horses an' carriage an' his library. An' they've got a boy baby. Named it Lutey 'fore it was a day old—big turn about amongst the Whitebrow family, I tell ye."

—WHAT DID SHE MEAN?—She (to Cousin George, who has just returned from the tropics): "O George dear, how kind of you to bring me this dear little monkey! How thoughtful you are! But—but—it is just like you."

—Charlie—"I pity you, Jack, when I see your creditors pushing you. That is a trouble I never had." Jack—"No. You probably never had any credit."

Come, Great Deliverer, Come.

Voices were borne out on the air one Winter night, voices of many people singing in a little upstairs room. The broad avenue was as light as day with the flare of electric lights. Crowds were surging up and down.

The voices went on singing:

I've wandered far away o'er mountains cold,
I've wandered far away from home;
Oh, hear my cry, be gracious unto me,
Come, Great Deliverer, Come.

A woman was standing inside the doorway listening to the words.

She was dressed in a gayly beaded wrap and cheap silk dress with faded trimming. Her face had been pretty once, but now there were hollows in the once rounded pink and whiteness of the cheeks and dark circles under the blue eyes. She looked weak and ill.

A sweet-faced woman just coming down the stairs from the meeting turned and looked at her, first with a feeling of repugnance. Then the pitiful weakness of the face overcame her. "Can I do anything for you?" she said, and gently touched the woman's arm.

The face turned toward her in reply worked with an emotion the poor creature tried to restrain. She threw her hands over her face and moaned out, "Oh, you can't; nobody can. It's me they're singing about. I've wandered far away from home. Oh, my God! there is no help." She was sobbing so the thin frame shook with the strength of her emotion.

The voices were singing, "I have no home, no refuge from the storm, come, Great Deliverer, come."

"My friend, there is help. But you are not well—let me take you home."

"You!" the poor woman lifted her tear-stained face from her hands as she spoke. You wouldn't be seen inside of it. See me! I've got nothing in the world but these things I've got on till Jim comes back from his trip. I live with Jim. I'm sick and faded, and he don't care for me any more. Oh, I want to die—why can't I die!" She dropped to the floor faint with exhaustion.

Miss Reigh spoke to a passing policeman. "Here, call a carriage for me, please." Then helping the woman to her feet, she said, "I shall take you to the hospital." As they were rolling along over the pavement, Miss Reigh asked, "have you had any thing to eat to-day?"

"Not since morning. I've been trying to find work with some dressmaker. I used to sew pretty well, but I'm too sick."

After being put to bed she fell into a stupor. Miss Reigh stayed until the woman was made comfortable, then went home promising to come again in the morning. She was detained, however, and it was well on in the afternoon before she reached the hospital. The matron told her the woman was in a bad way.

"Dr. Osborne says she may live a couple of weeks, but her mode of life has exhausted her vitality, and with the best of care she cannot last longer than that."

As Miss Reigh went in the ward the woman was muttering to herself, "Come, Great Deliverer, come." Her cheeks were flushed, and as she opened her eyes they were bright with fever.

"There must be some goodness in the world if there are many like you," she said, recognizing the face bending over her.

"My friend I want you to tell me about yourself—who you are. You are very sick—perhaps will not get well. Wouldn't you like to see a minister?"

"No, I won't see one. I hate them all. They preach about One who was good to such as me, but I tell you, till you spoke to me yesterday, I haven't heard a kind word from such as them for years. I'm not a good woman. I can't get it out of my head that about how I have wandered far away from home. Oh, I want my home. I want to see my little girl."

"Ten years ago I left my husband and ran away with Jim. I loved Jim, and I didn't love my husband. You think I was awful wicked, don't you? But I might have been worse, for I've always been true to Jim."

"Why did you marry your husband if you didn't love him?"

"He had a good trade and was doing well. I didn't like sewing, and I was only seventeen. He was thirty. I guess I was kind o' flattered to think he wanted me, for he never had much to do with girls."

"Wasn't he good to you?"

"Yes, ma'am, but after we were married he didn't seem to care so much about me, least ways he never showed it. I was always affectionate, but he thought I was silly to want to be petted. Women are queer things—they want to be told that you love 'em.

After little Annie was born, I thought it would be different, but it wasn't. I most hated the baby he was so fond of her. I remember how one day I dressed up in my new dress. I looked pretty in it, too. I kept thinking maybe he'll kiss me to-night if I look real pretty. But all he did was to pick up the baby and ask me if supper was ready. I slammed the dishes on the table and was pretty short with him all the time he was eating. That was what decided me to run away. I had been seeing a good deal of Jim. He was young and handsome, and told me my husband didn't love me. I had made a mistake to marry such an old man. Still I think if my husband had acted different, I wouldn't have gone away. Jim said marriage didn't amount to much—if one had made a mess of it the sooner they got out of it the better. He always called me his wife, but I'm awful afraid he don't care for me like he used to."

"Where is he?"

"Traveling for Duncan's cigar firm. He'll be back next week. Will you write to him and tell him I'm sick? J. H. Kidder, No. 97 Mason street will find him."

The nurse then came and gave the medicine, and rearranged the coverings that the restless tossings of the patient had made an untidy heap.

"I am afraid you are talking too much," she said, with professional anxiety.

"I think she will not be worse for it," Miss Reigh said. "I shall not stay much longer."

The bed was in the corner of a ward quite by itself. The nurse had placed a screen around it so they might talk unobserved. Miss Reigh looked earnestly at the face on the pillow. It was not bad, but pitifully weak. She believed the story just told her was true. But the woman began to cry.

"Oh, don't look at me. You are good, and I wish I was. Come, Great Deliverer, come. Oh, I want to die."

Miss Reigh slipped to her knees, and taking the woman's hand in hers, she prayed.

"Thou Great Deliverer, come to this child, who has wandered so far from Thee. Forgive her and bring her to Thy fold, bring her home. See, Lord, she is so sorry, and she wants to find Thee. Thou who never turned away from human woe, come and help this child. Amen."

The sobs had ceased and a look of awe was in the blue eyes.

"Do you think he'll hear you?" she whispered.

"I *know* he will. He is near us now—so near, longing to forgive and help you. Won't you believe Him when He says, 'Come unto Me all ye that labor and are heavy laden and I will give you rest? Don't you remember how Christ told the sinful woman who was brought to Him to be condemned to 'go and sin no more?'"

"I remember," she said, and a smile came over her face. "I learned about it when I was a little girl and went to Sunday-school. I never thought then I should be like that woman."

Day by day she grew weaker. One afternoon when Miss Reigh sat beside her she said:

"I want to know if you will write to my husband and tell him I'm sorry and want him to forgive me, and—" she hesitated, her voice broke into a sob, "ask him to let me see little Annie. I know I don't deserve to after I've left her all these years, but I want to see her so."

And Miss Reigh wrote a letter to the address given her, telling the sad story of the wife's nearness to death and her patience, asking him to send a word of forgiveness, and, if possible, bring the little girl to see her.

The answer came in a few days: "Tell Maggie I forgive her, but I can't let Annie see her. When she went away she died to me. Annie thinks her mother is dead."

Maggie was brave when she saw the letter.

"I wasn't fit to be Annie's mother, so I guess it's all right. Don't you think God will let me be her mother when I get to Heaven?"

"Indeed I do. Perhaps you can do more for her there than you could on earth. I wish you would let me bring my minister to see you."

"I'd rather you wouldn't. I never had much to do with ministers and churches after I ran away. One Sunday night Jim and I went to church. It was one of these 'Piscopal churches. The music was sweet and pretty, and the minister preached about the Book of Common Prayer. 'Well,' says Jim, when we went out, 'I hope you're satisfied. What do you care about the Book of Common Prayer?'"

Miss Reigh rose to go, but Maggie drew her down. "Have you heard from Jim? Is it wrong to love him so? It seems as if I couldn't die without seeing him again."

"I am sorry, dear. I have not heard a word from him."

Maggie turned her face to the wall. Miss Reigh stooped and kissed her forehead. She caught her hand and said, "when I get to Heaven I'll tell the Lord how good you was to me."

The following morning a note was brought her saying that Maggie had died in the night. Mis Reigh went at once to the hospital. The nurse said that the end was peaceful. "I gave her the medicine at two o'clock. She whispered, 'I've wandered far away,' but roused to take the medicine. When I went to her again she was gone."

Miss Reigh telegraphed the husband at once. He came on, and when he saw his wife laying so quietly at rest, he broke down.

"My Maggie, my Maggie! I did forgive you. Forgive me that I wasn't better to you."

Before leaving the city he called on Miss Reigh.

"God bless you, ma'am, for your goodness to poor Maggie. I guess I never made enough of her. She was such a lovin' little thing—Annie's just like her."—Sarah Anderson in American Cultivator.

YOUNG FOLKS' COLUMN.

The True Story of the Three Sisters, the Genius and the West Side.

Written for the RURAL PRESS by L. H. S.

Once there were three lovely sisters, named Applecheeks, Goldylocks, and Rubyheart, who lived in a hill country and were daughters of a great and noble prince, whose flocks and herds found unlimited range, whose valleys were set out in rare fruits, and whose river bottoms were perpetually green with fragrant alfalfa.

He was a rough and ruddy prince, well beloved by all his people, whose pretty homes were in the little vales and on the borders of the low rivers.

These three beautiful maidens lived with their noble father in his wonderful castle. They had been instructed in *belle lettres*, music, domestic economy, and the art of adorning their lovely persons. They danced with grace and rode their fleet ponies like an Austrian empress. But for all this they were not happy.

Applecheeks and Goldylocks and Rubyheart were known to wander often hand in hand far out in the fields by moonlight, or over the hills and through the forests by day. They were very sad, and they wept in the shaded retreats of the deep canyons, or sighed as they walked in the bird-haunted park, and their beautiful locks hung disheveled, which made them seem more lovely than ever.

One day these three maidens were bewailing their fate, sitting in the soft grass by a clear, cool spring, in a distant part of the castle park.

"Oh, I do wish something would happen," cried Goldylocks in a pet, flinging a valuable gold bracelet into the water. "This is too slow for anything."

At once something did happen. A stranger of impressive and dignified appearance rose up out of the water and stood before them. He had white hair and beard and a thoughtful countenance, but a very pleasant smile. His manner was most affable, he held a cane in one hand and lifted a shining beaver with the other.

"Do not be alarmed, ladies," he said, "this is a charming day."

The princesses murmured that it was, and gathered up their trailing robes ready to run.

"I beg you to remain," said the stranger. "I have come to offer you my services. I have long observed your sorrow and distress. If I can relieve your miseries I will be charmed. But you must first tell me the cause of your tears and sad wanderings."

The maidens dropped their skirts with blushing cheeks.

"You tell him, Rubyheart," said Applecheeks. "You went to school the longest."

Rubyheart drew near, and lifting her embroidered veil from her sad and beautiful features, told him the

STORY OF THE SORROW OF THE THREE SISTERS.

"We are literally prisoners on the domain of our father, the noble prince," she said. "We are forbidden all flirtations and real pleasures. All we can do is to read a few old novels and crochette, and help around the house."

"And we are tired of it," interrupted Applecheeks.

"Stupid," cried Goldylocks, shaking her shower of golden curls.

"But we have three noble lovers," continued Rubyheart, "who are longing to come and rescue us; but, alas! they cannot. They are named Broadchest, and Workwell, and Greatheart. They are princes of a great country across the Yellow river, called the West Side. They are possessed of immense wealth, and their fertile lands extend far and wide; but, alas! they are tied hand and foot in their homestead cabins by a cruel monster called Driought. They have to stay there, and wait, and wait, and hope. They cannot cross the Yellow river or write us a note even. The wicked monster blights the seeds they plant and chokes their cattle till they die. The monster, Driought, holds them back from us. They are handsome and noble and loving."

"And jolly," said Applechesks.

"And papa," cried Goldylocks, "says if we can't marry decent young farmers we shan't marry at all."

Rubyheart sank down in a fainting condition, and Applecheeks and Goldylocks fell to weeping bitterly. The stranger was visibly affected. He drew out a fine linen handkerchief and wiped his eyes.

"This is very, very sad indeed," he said, but I can help you. I will rescue your lovers."

"Oh! Oh! Oh!" they all cried.

"I am a *genius*."

"A what!"

"A regular genius."

"Oh! oh!"

"I am a descendant of those genii who inhabited the earth in the days of Sheherazade and Aladdin. We were known to the ancients as angels, but in course of time we fell, and there were good genii and bad genii, as in the time of Dorathil-goase. There are not many geniuses in the world to-day, and a great many who think they are geniuses are very bad ones. We are gradually losing our remarkable powers. But my blood is pure. I will kill the monster Driought."

The princesses would have embraced him, but he waved them back.

"To tell the truth," continued the genius, "I generally work for monopolies, and my pay is something enormous. I invent motors and lights and such things. But you, ladies, are very beautiful and I will help you. But I must first have gold to propitiate the King of the Genii. Return at this hour, to-morrow, with your aprons full of gold, and I will kill the monster Driought."

The genius then disappeared in the spring and only the circles caused by the fall of the bracelet were to be seen on the surface of water.

Now, the lovely princesses had no gold, but they determined to get some any way, just to try the experiment.

They rose in the middle of the night and gathered up all the loose gold in the castle; they took a little from each servant and emptied the pockets of their father, the noble prince, while he slept.

At the appointed hour the maidens appeared at the spring, and Goldylocks threw her other bracelet into the water.

Instantly the genius rose up, bowing as before. When he saw the heap of gold in the grass his face beamed, and he requested the charming princesses to put it in his pockets.

"Now," he said, "we will work the charm. I will make Reigne. The very smell of it will kill the monster Driought."

Then Applecheeks and Goldylocks thought he was an imposter and turned away weeping, but Rubyheart pressed them to remain.

Then the genius produced a bit of copper from his pocket and waved it in the air. Instantly a slave appeared, branded on his cap "S. P. R. R. Baggage Master," and deposited on the ground an average-sized trunk, much battered, with a cracked cover and ruptured lock. Then the slave bowed low, took the bit of copper and vanished.

The genius, with a resigned smile, knelt on the ground, unstrapped the trunk and took off the cover. Then he took out a curious-looking apparatus and some large bottles.

"And now," he said, "if you will lend me the use of your sheep-herders' cabin, I will make Reigne."

Applecheeks ran and unbolted the door and the genius took his bottles and things and shut himself up in the cabin, while the three beautiful princesses clasped their hands and wondered.

Soon they saw a thin smoke curl up out of the cabin chimney; it grew black and dense and rose up and filled the air about them. Then they saw it lift up in a huge volume and it was carried by a south wind as far as the West Side.

The fair sisters threw up kisses on their hands to send to their lonely lovers. Then the genius stood before them.

"The charm has worked," he said. "There will be Reigne. Your lovers will be free and they will come, as the brave knights of old, to rescue you. Fly to the shelter of yon oak."

But the sisters were spell bound. Soon the bright silver drops of the magic Reigne came tumbling down out of the air. Applecheeks put up her round face and red lips and sipped the drops as they fell.

Goldylocks spread out her bright curls and laughed to see them get wet and ragged.

Rubyheart opened her lace robe and let the cool drops run down her ivory throat.

They kissed each other with joy. "Reigne will put an end to Driought," they cried.

"And now," said the genius, "run to your castle tower and watch three months, and if your lovers do not come, then I am no son of the genii."

Then the beautiful princesses ran to the tower and watched and waited, though the great prince, their father, raged and fumed and ordered them to come down and have done with such nonsense.

"What seest thou, sister Rubyheart?" cried Goldylocks.

"In the far distance I see, sister mine," said Rubyheart, mounted on the high parapet of the tower, "that the great plain on the west side of the Yellow river grows green to the tips of the western hills. And I fancy I can hear the larks singing in the waving grass. I can see children playing in the roads and cattle on the hills. In the place where Greatheart and Broadchest and Workwell live, I can see houses being erected and piles of lumber in the sun."

Then Applecheeks lifted up her lovely face.

"And what dost see now, sister?"

"I see," said Rubyheart, "all the plains grow lighter and brighter and the waving of heavy grain in the west wind. I see young men in the fields, tossing hay. And now, as I look, dear sisters, I see the plain grow yellow as gold and the warm, dry air quivers in the distance. And now I see a great machine, run by steam; it is cutting the grain and laying it down in sacks in the field. And there is another machine puffing smoke also, and hauling heavy loads to the long warehouses by the iron road. Take the glass and look, Applecheeks. My heart throbs and I grow faint with joy."

"Yes," said Applecheeks, "and Broadchest and Workwell and Greatheart are there, and they have been paid cash on delivery. They are smiling and folding up checks. Our lovers are free!"

The field glass fell over the parapet and broke into a thousand pieces, and Applecheeks and Goldylocks ran off to their boudoirs.

"And now," mused Rubyheart, "I suppose they will come on three magnificent coal-black chargers, gaily caparisoned in velvet and gold and silver. I will have a ruby on my ring. Goldylocks must have an amethyst and Applecheeks a diamond.

Then Applecheeks flew up the stairs, her eyes shining like stars.

"Rubyheart, sister, sister," she cried, "come down and curl your bangs. The boys are driving through the big gate. They're not dressed like knights at all. They've got three new, spick and span top buggies and big, beautiful, bay mares.

—A summer school for females is to be established in the Eiffel Tower. This should interest those persons who believe in the higher education of women.

ROYAL

BAKING POWDER

Absolutely Pure.

A cream of tartar baking powder. Highest of all in leavening strength.—*Latest U. S. Government Food Report.*

INFORMATION FOR SETTLERS!

The members of the Kern County Land Company have a national reputation for wealth, business and financial ability. These facts set the matter reliability at rest. The company's capital stock is $10,000,000.

They have 400,000 acres of arable, irrigable lands upon which the sun shines almost constantly; and their enormous irrigation system renders them independent of the annual rainfall.

A clear title; rotation, variety and certainty of crops; easy terms; availability to persons in moderate circumstances; ground ready for the plow—no stones nor thistles; good society; schools; churches, etc., are a few notable attractions of this region of country.

Kern is the largest county in the San Joaquin Valley. It has the finest climate for curing and drying fruits, etc.

The 400,000-acre territory of the Kern County Land Company is the pick of the county.

Its area is 5,184,000 acres.

Has the largest irrigation system in America.

The home of the peach, French prune, pear and raisin grape.

Planting and harvesting can be carried on every month in the year.

No rocks, hills or stumps on the land.

A failure of crops is unknown on irrigated lands.

Kern county fruits take the first prize at the State Fair.

Land can be made to pay for itself in less than three years.

Grows more alfalfa than any other county in California.

FOR FURTHER PARTICULARS ADDRESS

The advantages of good soil and plenty of sun, which occur in the Kern Valley, would have been of little avail but for the third and all-important one of an abundance of water from never-failing sources.

Through 300 miles of main canals, and 1,100 miles of laterals, the great Kern river furnishes enough moisture to slake the thirst of the 400,000 acres already referred to.

Drought is out of the question.

The system has been constructed in the most careful and scientific manner. Some of the canals are 125 feet wide and six feet deep.

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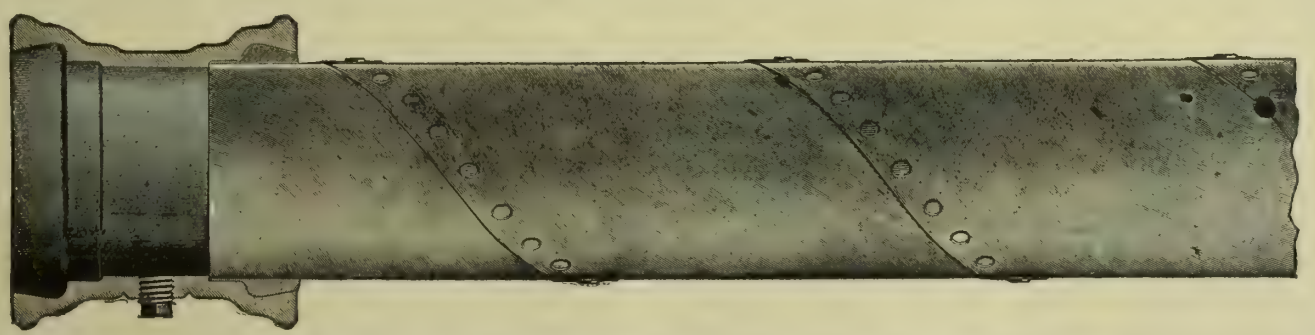

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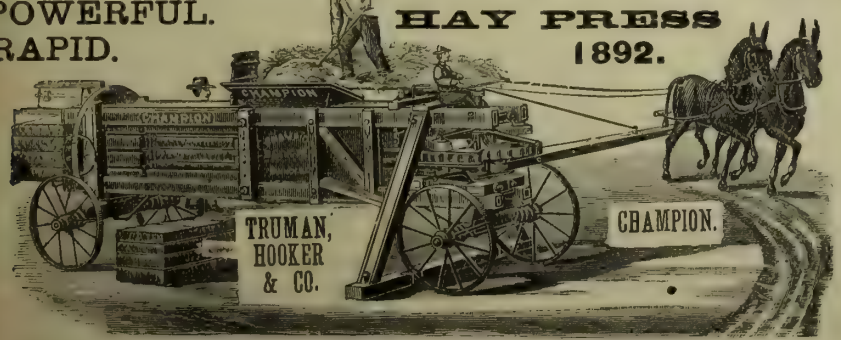

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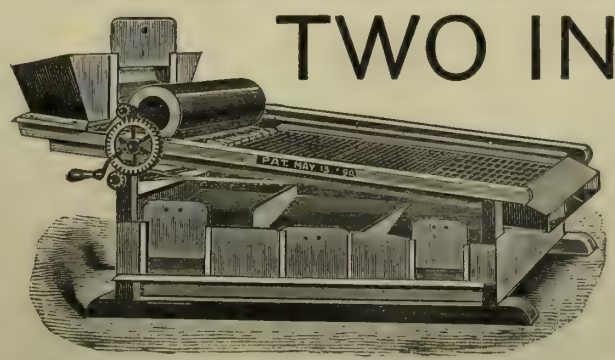

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HAMILTON PRUNE GRADER

The only machine that will grade with equal facility both green and dried fruits. It is desirable to grade prunes both before they are dried and absolutely necessary after.

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It is the best economy to have one machine which you can use for both green and dr'ed fruit, saving time, money and valuable space. No complicated machinery to get out of order and do imperfect work.

VERY SPEEDY.

No machine compares with this in speed. Will grade apricots for drying, also walnuts and pecans.

W. C. HAMILTON, near Narrow Gauge R. R. SAN JOSE, CAL.

AGRICULTURAL NOTES.

CALIFORNIA.

Butte.

MORE THOROUGH CULTIVATION FOR ORANGE TREES. — Oroville *Register*: Orchardists, especially those growing the orange, should cultivate the ground thoroughly. We have examined 40 or 50 orange groves lately and noted in every instance that the rankest growing, most vigorous and richest colored trees are those receiving the best tillage. Water alone will not answer, but the ground must be worked until it is as mellow and moist as land can be made in a hot, dry climate. The soil should be plowed or cultivated at least five or six times during the season. If more work than this is put on the land the trees show quickly a still more vigorous and rapid growth.

RECLAMATION DISTRICT NO. 542.—*Register*: A large number of land owners living on the east side of Butte creek in the vicinity of Nelson have organized the above named reclamation district, which includes about 6000 acres of land. There is a strong levee on the west side of the creek and this forces the water in winter over the lands to the east. It is the purpose of the members to erect a levee, 50 feet wide on the bottom, 12 feet high and seven miles in length. It will be about six feet wide on top. Each land owner will be assessed in proportion to the number of his acres and the advantage the levee is to him. The owners of the Pratt Grant will extend their levee a mile and a quarter, while all will unite in clearing the stream of all obstructions. The levees will be from 100 to 300 yards apart. The slope of the land is to the southwest and the grade is about six feet to the mile.

Contra Costa.

AGRICULTURE.—Monterey *Gazette*:

Wheat, acres	43,365
Oats	1 750
Barley	27,375
Corn	2 100
Hay	51,413

Grape vines growing:

For table, acres	425
For raisins	216
For wine	3,845

Fruit trees growing:

	Bearing.	Non-bearing.
Apple	7,715	3,560
Apricot	23,460	15,321
Cherry	7,300	3,422
Fig	1,800	1,100
Olive	.....	12,000
Peach	6 315	6,220
Pear	39,345	29,500
Prune	33,712	31,560
Lemon	150	75
Orange	320	225
Almond	25,225	22,310
Walnut	.....	3,500
Quince	750	625
Pecan	900	.....
Persimmon	200	.....

Kern.

AN EXTENSIVE ORCHARD. — Bakersfield *Echo*: The California Land and Commercial Company of London is now improving for its clients nearly 4000 acres of land, some of which has already been planted in trees and vines. All of the remainder is under cultivation preparatory to making orchards and vineyards of it.

Most of the California Company's new land has been planted this season in grain or Egyptian corn preparatory to setting out orchard and vineyard next season.

A NEW PEACH.—Bakersfield *Californian*: C. A. Maul has discovered a new variety of peach in his orchard. Two years ago he budded a quantity of seedlings to Orange Cling and this was among the others. It flourished, but bore no fruit last season, yet, from its similarity to the Orange Cling variety, he felt sure that the bud had grown. This year, to his surprise, it produced a new variety of freestone. The peach is round, rosy red upon the outside, yellow meat within, with a very small pit. It has firm, juicy meat of delicious flavor and is fully ripe by the first day of July. It fact, it can be gathered so as to reach the Eastern market by the first of July. It is as large as any early Crawford, averaging at least three inches in diameter, and is a handsomer peach every way. From its firm meat it will make a splendid shipping peach, and its early ripening quality makes it a very valuable addition to the peach varieties of Kern.

Los Angeles.

A LIGHT YIELD OF HONEY.—Pomona *Register*: An extensive apiarist living near Pomona, and keeping about 1000 swarms of bees, states that for this year he will have only about three tons of honey. This is the third successive bad honey year.

THE LARGEST APRICOT CROP FOR YEARS.—Pasadena *Blade*: The apricot crop this year is pronounced by competent judges to be the largest ever known in this valley. In this connection, it is interesting to know how much fruit is being produced per acre. Dr. E. F. Greenleaf's orchard is a fair specimen of the orchards seen on the outskirts of the city. He has four acres of apricots from which he will this year produce over seven tons of dried fruit. It takes six tons of green fruit to make one of dried, and it is thus seen that his little orchard will yield over 42 tons, or nearly 11 tons per acre. Two years ago the doctor's orchard produced nine tons per acre. Heretofore his orchard has never received any irrigation. This year, however, he irrigated a portion of it as an experiment. The result has been that the irrigated trees are more heavily laden, have larger fruit and show a more rapid and a healthier growth. The irrigated fruit, however, ripened a few days later, but was of a more uniform size. A ride through the apricot orchards reveals an interesting sight. Broken branches everywhere betray the fact that the trees are overloaded. Pickers are everywhere at work, and here and there are gangs of girls and boys engaged in pitting fruit for progressive ranchers who prepare their own product for market. One man living between this city and Tustin has 300 tons of apricots on 25 acres. This is a yield of nearly $200 per acre. Pears and peaches are also a large crop, and oranges promise a prodigious yield next year. Prunes in this valley, however, are almost a failure this year, the first time in four years. Walnuts also promise the largest crops for several years.

PUMPKIN SEED TO THE ACRE.—*Delta*: J. E. Tilton is great on the little things. In order to find out just how much seed is required to plant an acre to pumpkins, he weighed out a pound and counted them, and, by allowing three to a hill and the hills ten feet apart, it required just one pound per acre.

Orange.

APRICOT CURING.—Orange *News*: Joel B. Parker, who has the most extensive apricot orchard in this section, has in his packing house all the necessary appliances for evaporating fruit; but as they are not in use this season, he evidently considers sun-drying the more satisfactory method, and it is certainly a very simple one. The fruit is "picked," if placing great sheets of cotton underneath the trees and shaking the fruit off by means of long forked sticks, which are inserted among the smaller branches, may be so termed. It is then turned into boxes holding about 50 pounds, and thus conveyed in wagons to the packing house, where they are piled up ready for the cutters, who see them weighed and are given tickets marked accordingly. The cutters then sever the fruit in halves, eject the pits and place the fruit inside up, and one layer deep, on large, shallow, wooden trays. When the trays are covered with fruit, they are removed by attendants and piled on cars, which run them into the sulphuring houses. Here the fruit is subjected to the fumes of sulphur for a few minutes to bleach it and protect it from the depredations of insects while drying. After being thus treated, it is sent over tracks running in different directions to the drying ground, where the trays are spread out in the sun. In three or four days, or as soon as the fruit is sufficiently dried, it is packed in sacks and turned over to the shippers. Mr. Parker's orchard comprises 30 acres, and he estimates that his crop will this season aggregate not less than 30 tons when dried. Thirty tons of dried apricots mean about 180 tons of whole fruit.

Santa Clara.

BIG PROFIT IN PRUNES.—Gilroy *Gazette*: Mr. J. C. Zuck informs us that he has sold the prunes, the produce of nine acres, at $50 per ton delivered in San Jose. He will have between 40 and 45 tons, and as the cost of picking and delivery is less than $5 per ton, he will net from that nine acres something over $2000. Not a bad business—$200 per acre.

AGRICULTURAL AND HORTICULTURAL STATISTICS.—S. J. *Mercury*: The following statistics are of interest, showing the number of trees and vines in the county in good condition: Fruit trees, one year old, 472,950; fruit trees, two years old, 280,720; fruit trees, three years old, 264,295; fruit trees, four years old, 256,115; five years old and upward, 1,325,620; total number of trees, 2,599,700. Acres of vines, grape, one year old, 215; grape, two years old, 356; grape, three years old, 418; grape, four years old, 734; five years old and upward, 10,300; strawberry, 267; blackberry, 72; raspberry, 42; gooseberry, 11; total number of acres, 12,415.

Sutter.

FRAUDS PRACTICED BY DRIED FRUIT DEALERS. Yuba City *Independent*: At the last meeting of the Sutter County Horticultural Society, R. C. Kells gave his own system of drying which, he said, was not drying, but curing. He did not believe in exposing fruit to the sun until it would rattle like a lot of gravel when poured out. His rule was to spread the fruit in the sun in trays for a short time and then remove it in the heat of the day to his sweathouse, where it was bulked on the floor to a depth of from one to three inches. Here he stirred it frequently with scoop-shovels, gradually increasing the depth of the bulk and decreasing the area of floor room occupied until the fruit was in condition to sack for market. It was then not dried, but cured. It would not rattle when handled, but was like soft leather. This way of curing did not suit those dealers whom the speaker designated as manipulators. The manipulators preferred to receive the fruit in a hard, dry condition, so that by adding large quantities of water they could increase its weight and thus add to their profits. This was a condition which the fruit growers of California would have to meet. They should stand together and insist that their cured fruit be sold to consumers just in the condition in which it left the producers' hands. When in St. Louis last winter he saw on the fourth floor of a large establishment a pile of 30 tons of Missouri dried peaches. They were poured out in bulk at one end of the room and men were engaged with rakes in stirring the fruit, while other men were turning on the hose. In this way 25 per cent was added to the weight, and this alone was a fair profit to the dealer. Fruit growers should insist that this fraud be discontinued.

FRUIT SHIPMENTS.—Y. C. *Farmer*: The close of this week will see four more carloads of choice fruit on the way East loaded from the orchards in this vicinity. At every orchard busy hands are packing plums, peaches, nectarines and pears into crates and baskets for Eastern markets. The returns are very encouraging and prospects are good for a continuance of the good prices that the growers are now realizing. Very few lots of fruit fall below 3½ cents per pound net to the grower, while many carloads go much higher. Peaches are the principal fruit and the varieties are the Crawfords, Decker and others. The Tuscan Cling will soon be ready. Grapes are ripening and in a week or ten days will be shipped to a considerable extent.

Tulare.

HONEY YIELD.—Visalia *Delta*: F. M. Hart had fresh honey in the market July 11th this year. This early date breaks the record. He has about 300 swarms at his place near Traver, and states that the bees are doing better this season than for eight years past.

LUCERNE APRICOT CROP.—Hanford *Sentinel*: The season's crop of apricots has been a very satisfactory one. A good price has awarded the toiling producer, and every man with an orchard of this fruit feels his bank account growing. The season was marked with perhaps the strongest competition ever known here among the buyers of apricots, and the average price paid the producers is about 9½ cents per pound. The amount of the crop is about three times that of last season, and most of it was sold to Charles King, 19 carloads in all, worth to the growers on an average of $2000 per car, or $38,000, as the result of the harvest this year in Lucerne. There will be a large increase of bearing trees next season. The peach crop will be ready to begin on in ten days, and it promises a splendid yield. Prices promise to be good, also.

Ventura.

INTERESTING CROP NOTES.—Cor. Santa Barbara *Independent*: Barley is now being threshed and has already begun to arrive in Ventura and Hueneme—principally in the latter place. Conservative estimates from recognized authorities place the yield of Ventura county at about two-thirds that of last year. On the Las Posas, the great barley-producing tract, it is estimated that the yield will be about 250,000 sacks. The quality is excellent. The acreage is somewhat larger than that of last year. This year there is a decreased acreage of beans to the amount of about 10,000 acres. This is made up by the increased acreage of corn and barley. Of the beans the consensus of opinion is that the outlook for a good yield is very poor. The weather is unfavorable for such tender plants and the lack of moisture is keenly felt. The beans require heavy fogs and cool nights. Corn is looking magnificent and promises a heavy yield. While the weather is very unfavorable to beans it is very favorable to corn. Perhaps I might explain this seeming inconsistency. The corn plants stand high, with broad, wide leaves, and every drop of moisture gathered from the atmosphere is led down to the roots. From this, corn will thrive on very little moisture. But the bean plant sits low on the ground and has not the ability, from its peculiar shape, to gather and utilize as much of the atmosphere's moisture as the corn. The few leaves about the center of the stock gather what they can of the moisture and it trickles down the stock to the rootlets. A good heavy fog allows this to be done in a sufficiency and, as a result, a cool night with a heavy fog is everything for the beans. Just now the beans are putting out their runners and blossoms and the pods should form at once. It will need moisture to give the plant strength to accomplish this. Apricots are now being shipped to Newhall and Fillmore for drying, but by far the larger part of the crop goes to the former place. Many of the growers are drying their fruit on home places. Fruit reports along the railroad lines are not flattering for good fruit. The apricots are going into market very small in size. The belief now is that the dried fruit market will not be as well stocked as usual. Buyers are on the ground and eagerly buying carloads as they appear. I hear of several heavy shipments already being made and sent on their way East. As to hay, we may say that, while the yield is not large, it is of very fine quality, and if the supply is not large it is ample, as there will be but little wasted. There is no reason to believe prices will of necessity run to great extremes.

Yolo.

CLAIMS THAT SWEET CLOVER IS DETRIMENTAL. Woodland *Democrat*: Balfour, Guthrie & Co., the wheat buyers, have written a letter to a Willows merchant, in which they deplore the tendency in many parts of the State to promote the growth of sweet clover. They claim that it is a serious detriment to wheat; that it taints cargoes and involves great loss to shippers. They urge that the attention of farmers be directed to this matter as much as possible, with the object of inducing them to put forth special efforts to exterminate the weed from their wheat fields, as, in fact, the longer it is delayed the worse the evil will become, with its corresponding pecuniary loss and dissatisfaction.

Yuba.

HOP NOTES.—Wheatland *Four-Corners*: The hop yards are in the blossom. Cultivation has ceased in several yards. Picking will commence about the second week in August. S. D. Wood has ordered lumber for a new hop kiln. He will build a hopper kiln on the same plan as two being erected by John Roddan.

SWEET CLOVER RUINING GRAIN FIELDS. — Marysville *Appeal*: Harvesting is progressing very favorably, the weather being unusually cool. There is a good deal of smut and rust noticeable in the grain from many sections this year. The growth of sweet clover is rapidly spreading in some sections of this State, which affects the quality and quantity of the yield; it grows like alfalfa and has a yellow blossom. The presence of sweet clover is a serious detriment, and many entire crops of wheat have been affected by it this season. It can easily be detected by the odor arising from it, and the presence of the little seeds may be readily discerned. Such tainted wheat can only be handled at a large discount.

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Much of the food actually digested and assimilated is not used to the fullest extent for want of sufficient oxidation to make it yield the greatest amount of vitalizing power to the tissues of the body. Such partially unoxidized products have an irritating effect on the organs and tissues, and predisposes them to disease if they do not directly affect them with it.

Exercise has a stimulating effect on all parts of the body by inducing further oxidation in all the tissues and organs. This increased oxidation is attended by a greater demand on the part of the system for oxygen—as indicated by the greater number, force and frequency of the respirations.

During exercise the heart beats faster, and forces more blood through the lungs to all parts of the body, bearing in its little blood cells the precious life-giving factor, oxygen. These little cells—one constituent of which, hœmoglobin, has the wonderful faculty of quickly loading and unloading itself with oxygen—thus act as direct aids to the process of oxidation in the tissues and organs.

It is the combining of oxygen with unoxidized products in the blood that gives to each individual cell its possibility of sustaining life. Any process which increases the oxygen supplied to all parts of the body tends to strengthen the life in each individual cell, and to give it more power to resist disease.

Exercise of all factors does this most effectively, and besides actually producing in each individual cell a greater vitality, it gives a favorable opportunity for the waste products of the tissues to be thrown off rapidly. By thus causing a further oxidizing of certain matters in the blood, it conduces in a double sense to life and health.

Habitual outdoor exercise, with suitable protection from extremes of weather, is the most effective means of prolonging life to old age.—Youth's Companion.

MINERAL WOOL.—An industry has been established at Roanoke, Va., for the manufacture of mineral wool, the material for which is obtained almost close to the works. Some of the finer grades, though produced from the hardest rock, are as soft as the finest cotton. This mineral wool is indestructible and odorless. It will not burn, decompose or granulate, but will retain its fibre wherever placed. It is coming into large use as a lining between walls of buildings, thus providing a safeguard against fire, and insurance companies are reducing their rates on buildings so fitted. It is introduced into dry kilns, making them almos fireproof.

SOAP PRODUCTS.—A degree of superiority has long been claimed for some of their specialties in soap products by German manufacturers, and especially in the processes of coloring. This latter, however, depends largely for its success or attractiveness on the materials used, these being mainly lard, tallow, cocoanut oil, palm oil, and to some extent, almond oil. The method of insuring a satisfactory color is thus a matter of discrimination—heavy, earthy or metallic colors, such as umber or vermillion, being added only when the soap has acquired a thick consistency, while dissolved colors may be added when the soap is still thin. Very few colors only can be made use of before all the lye has been run in and saponification begun, and aniline colors almost disappear at first under the action of the alkali, but return after cooling. The beautiful marbling effects produced is the result of simply stirring up the required color in melted cocoanut oil, runnning it into a funnel closed at the lower end by a finger, and allowing the contents to run over the soap as it is run in layers into the frame, and, on the frame being full, a stick is drawn in fancy figures through the soap to distribute the color. As compared with foreign countries, German manufacturers produce a much larger proportion of their toilet soaps by the color process.

SUMMER FOOD.—Half the illness that occurs at one season, I think I can safely say, is due to improper dieting taken at another. We hear of people feeling weak in the spring, or suffering from those different ailments due to malnutrition, such as boils, skin diseases, obesity or debility. Now this would not be so if the person adapted his diet to his requirements and to the season. No sensible person would think of keeping a large fire burning in his room in the summer. If he did, he would undoubtedly soon feel the effect of it, but many a man who would feel himself insulted if he were not thought a sensible person will eat in the summer to repletion, foods the particular action of which is to supply heat in excess. Perhaps I cannot do better here than to explain that the foods that are converted into heat—that is, keep up the heat of the body—are starches, sugar and fat; and those that more particularly nourish the nervous and muscular system are the albumen and salts. The largest proportion of summer food should consist of green vegetables, cooked or as salads; white or lean meats, such as chicken, game, rabbits, venison, fish and fruits.—Popular Science Monthly.

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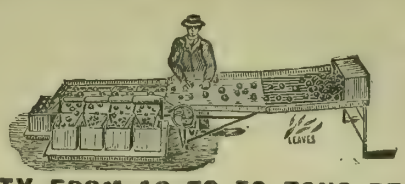

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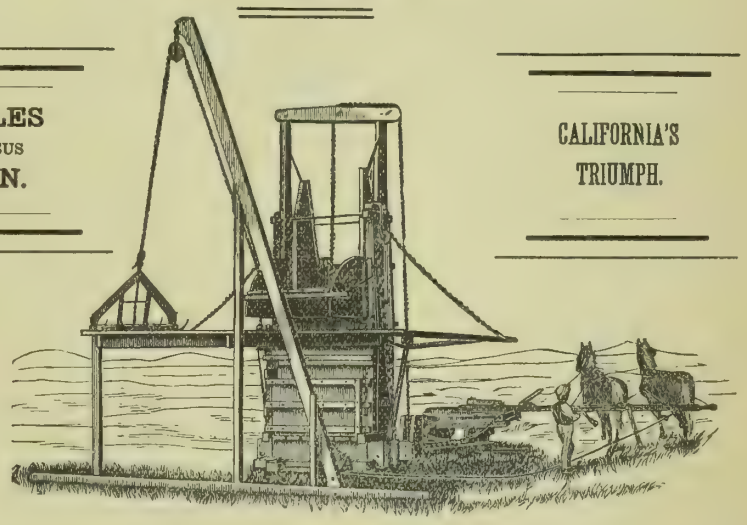

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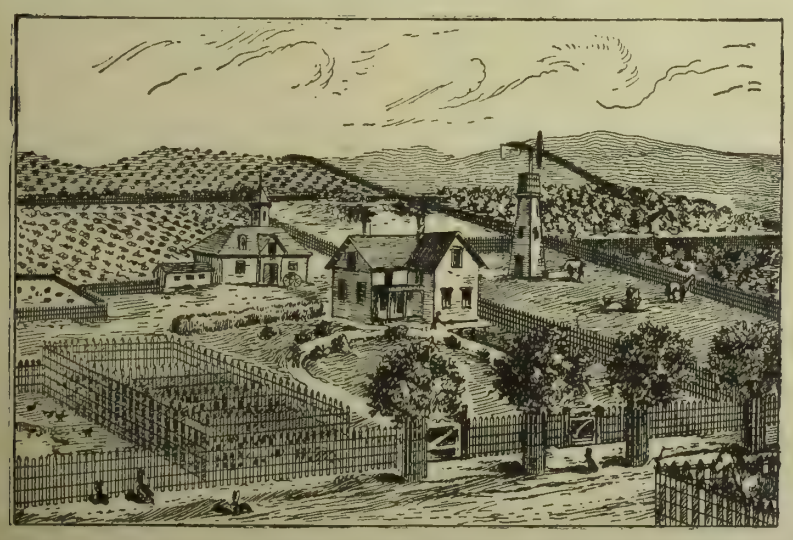

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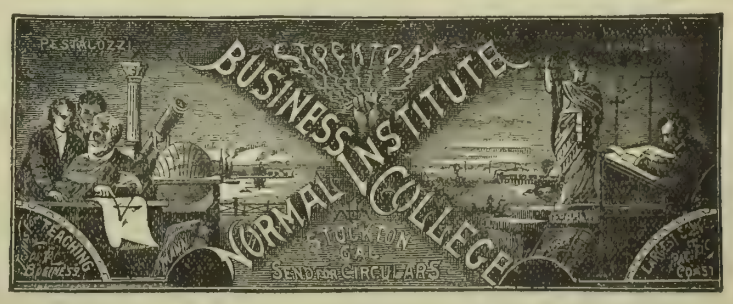

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Domestic Economy.

Concerning Salads.

Salads are not as universally appreciated as they should be. To many the preparing of a salad seems a laborious task, It is not as much work as it appears to be, as many of the dressings, which are the chief part, can be prepared beforehand. The dressing should not be added to a salad till just before serving, as it becomes watery if mixed long before being used. This is an excellent way to dispose of remains of fish, vegetables, poultry and meats of various kinds.

Summer Salads—One-half small head of cabbage, two heads of lettuce, one onion and one cucumber. Chop all together, salt and pepper to taste, using both black and cayenne pepper, and cover with the following mayonnaise.

Mayonnaise Dressing—Mix one even teaspoonful each of mustard and salt, with one and a half teaspoons of vinegar. To this add the yolk of one egg. Beat well together and add nearly half a pint of salad oil.

Egg Salad—Cut two boiled potatoes fine, slice six hard-boiled eggs and shred one bunch of lettuce. Arrange a salad bowl and pour over a mayonnaise dressing, highly seasoned with onion and cayenne.

Potato Salad—Small potatoes not suitable to cook with larger ones can be laid aside and used for salads. Boil them and while warm slice thin and serve with a cream dressing, made as follows: One teaspoon each of sugar and salt, one fourth teaspoon each of dry mustard and black pepper. Mix and add gradually one-half cup of sweet cream and two-thirds of a cup of vinegar.

Turkey Salad—Mince the remains of cold turkey, mash the yolks of eight hard-boiled eggs, add salt, pepper and mustard to taste, and two tablespoons of sugar. Chop three heads of celery with the whites of the eggs, and a teacup of vinegar, and pour over the meat.

Cabbage Salad—Cut the cabbage very fine and season with salt and pepper. Serve with the following dressing: Take two teaspoonfuls each of butter, sugar, flour and mustard, one egg and one cup of vinegar. Stir all together, and let it come to a boil. Pour over the cabbage while hot.

Chicken Salad—Cut the meat of one boiled chicken in dice, and mix with the same quantity of chopped celery. Just before serving, pour over it the following dressing: Rub the yolks of two hard-boiled eggs through a sieve and mix with a tablespoon of cream and two tablespoons of salad oil. Add a teaspoon each of salt and dry mustard, and three tablespoons of vinegar.

Salmon Salad—Take one can of salmon, pour off the liquor and pick the fish into flakes with a fork and lay it on a flat dish; cut some lettuce leaves and mix with the fish. Rub together the yolk of a raw egg, a teaspoon of sugar, half a teaspoon of salt, and one-fourth of a teaspoon of cayenne pepper. Thin with a tablespoon of vinegar and add the powdered yolks of four hard-boiled eggs. Lastly, add the beaten white of an egg and pour over the fish.

Apple Salad—One quart of steamed apples rubbed through a sieve, six tablespoons of salad oil or melted butter, salt and pepper to taste, one teaspoon made mustard and one teaspoon of sugar. Serve cold.

Lettuce and Ham Salad—Chop fine one slice cold boiled ham and cut up one head of lettuce. Serve with the following dressing: Mix together thoroughly one-fourth cupful of salad oil or melted butter, one-fourth teaspoon of pepper, one teaspoon of made mustard, one-half cupful of vinegar, and salt to season.

Celery Salad—Separate the stalks of four heads of celery, cut in pieces an inch long and pour over it half a pint of mayonnaise dressing.

Watercress Salad—Wash and break apart fresh, crisp leaves of cress, cover with mayonnaise dressing and serve immediately. Margaret Palmer, in American Cultivator.

Fills the Bill.

Farmers perhaps more than any other class suffer from the charges and dishonesty of middlemen. If the farmer could sell his produce at best market rates and have honest returns made, his profits would be greatly increased. An agency or organization that would carefully supply the farmer with information in advance of his shipment, look out for his produce when it arrives, report to him as to the honesty of firms he may think of dealing with and do his purchasing at the best market rates, would be of almost incalculable benefit. To fill this want, lately a number of reputable San Francisco business men have organized a Farmers' Protective Bureau, with offices in the *Chronicle* building, San Francisco.

Personal Appearance of Columbus.

Columbus was of powerful frame and large build; of majestic bearing and dignified in gesture; on the whole well formed; of middle height, inclining to tallness; his arms sinewy and bronzed like wave-beaten oars; his nerves high-strung and sensitive, quickly responsive to all emotions; his neck large and his shoulders broad; his face rather long and his nose aquiline; his complexion fair, even inclining to redness, and somewhat disfigured by freckles; his gaze piercing and his eyes clear; his brow high and calm, furrowed with deep workings of thought.

In the life written by his son, Ferdinand, we are told that Columbus not only sketched most marvelously, but was so skillful a penman that he was able to earn a living by engrossing and copying. In his private notes he said that every good map draftsman ought to be a good painter as well, and he himself was such in his maps and globes and charts, over which are scattered all sorts of cleverly drawn figures. He never penned a letter or began a chapter without setting at its head this devout invocation: "*Jesus cum Maria sit nobis in via.*"

Besides his practical studies, he devoted himself to astronomical and geometrical researches. Thus he was enabled to teach mathematics, with all the advanced knowledge of his time he was conversant, and he could recite the prayers and services of the church like any priest before the altar. He was, as I have already said, a mystic and a merchant, a visionist and an algebraist. If at times he veiled his knowledge in cabalistic formulas, and allowed his vast powers to degenerate in puerile irritation, it was because his own age knew him not, and had dealt hardly with him for many years—from his youth until he had reached the threshold of age—without taking into account the reverses which darkened and embittered his later years. Who could have predicted to him, in the midst of the blindness that surrounded him that there in Spain, and in that century of unfading achievement, the name of Columbus was to attain to fame and unspeakable renown? There are those who hold that this was the work of chance, and that the discovery of America was virtually accomplished when the Portuguese doubled the Cape of Good Hope. But I believe not in these posthumous alterations of history through mere caprice, nor in those after-rumors of the discoverers who died in obscurity.—Emilio Castelar, in June Century.

How To Make a Rose Jar.

That a delightful effect is produced throughout the house by the daily use of a rose jar is not as universally known as it should be. The following directions were given in *Harper's Bazar*, with the assertion that the potpourrie would retain its fragrance for 20 years.

"During the rose season gather a quantity upon fine, dry days. Remove the petals, and, when a half peck is obtained, take a large china or glass bowl, strew a handful of table salt on the bottom, then three handfuls of leaves, then salt, and so on until all the leaves are used, covering the top with salt. Let it remain five days, stirring and turning twice a day. They should now appear moist, when add three ounces of bruised or coarsely powdered allspice and one stick of bruised stick cinnamon. This forms the stock. Allow it to remain a week, turning daily from bottom to top. Then put into the permanent jar one ounce of allspice, and adding the stock, layer by layer, sprinkle between the layers the following mixture: One ounce cloves, one ounce cinnamon, two nutmegs, all coarsely powdered, some ginger-root, sliced thin, half ounce anise-seed bruised, ten grains finest musk, half a pound freshly dried lavender flowers, two ounces powdered or finely sliced orris root. Then add the following essential oils at pleasure, some preferring one odor, some another: Jasmine, rose geranium, lavender, lemon verbena (or vervain), musk, neroli, patchouly, rosemary, violet, etc. Lavender, (amber), Florida, magnolia, Ixoro, Breoni, California and Hedyosmia water and Turkish extract are excellent, added from time to time, as also any fine cologne, rose or orange flower water. Orange and lemon peel, and such freshly dried flowers as violets, tuberoses, clove-pinks, or other highly scented varieties, should be added each year in season, and fine extracts of any kind will add greatly to the fragrant odor, while fresh rose leaves, salt and allspice, made as at first, must be added, when convenient, in the rose season. Shake and stir the jar once or twice a week, and open only during the daily odorization given to the apartments."

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Boys' fine linen Coats and Ulsters, worth $1.50 to $2. Closing lots, 4 to 11, at 25c; 12 to 19, at 35c.

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We can send you one of our

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Just the Harness for an Elegant Turnout.

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Collar and Hames, instead of Breast Collar, $2 00 extra.

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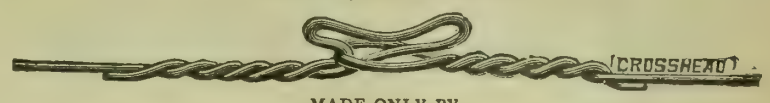

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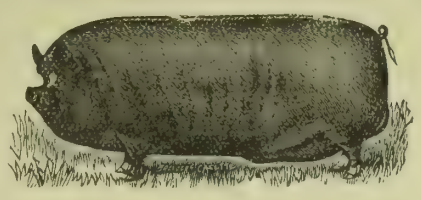

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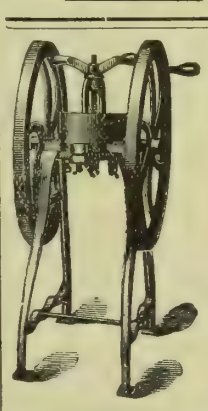

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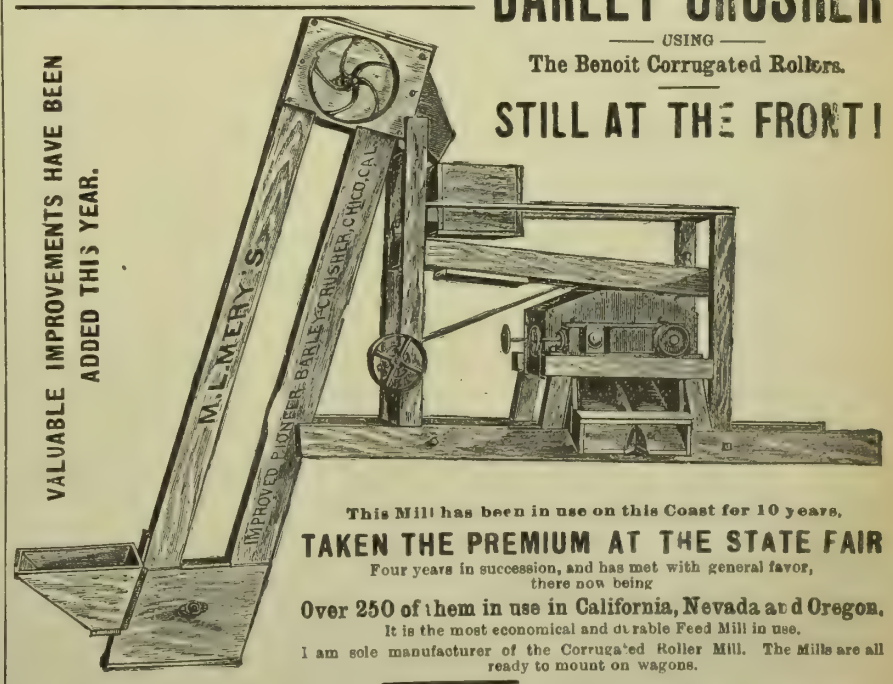

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I am sole manufacturer of the Corrugated Roller Mill. The Mills are all ready to mount on wagons.

GRAINLAND, BUTTE CO., CAL., June 9, 1887.

MR. M. L MERY—Dear Sir: We have used one No. 2 Roller Barley Crusher now for eight years and have used it steady during that time; have crushed 45 tons a day and the Crusher is as good to-day as when it came out of your shop. I am satisfied that it is the best mill made. You may reconstruct this testimonial to the best advantage for you and sign our names, for you cannot overrate the merits of your mill. F. E. REAM, JNO. P. SUTTON.

DURHAM, May 21, 1887.

MR. M. L. MERY—Dear Sir: In reply to yours of the 19th, would say that I crushed from two to two and a half tons per hour, but could crush three and a half tons if my elevators were large enough to carry the barley from the machine. The No. 1 machine I used at Gridley was run on a sack a minute, and if we got behind we could run through five tons an hour and do good work. The machine I use here is a No. 2. Yours, WM. M. TAYLOR.

I thank the public for their kind patronage received thus far, and hope for a continuance of the same.

M. L. MERY, Chico Iron Works, Chico, Cal.

BRIGGS CARRIAGE CO.,

We are now positively closing out regardless of cost our entire stock of First Class

Extension Top Carriages, Surreys, Phætons and Buggies,

TO CLOSE UP BUSINESS,

220 and 222 MISSION ST., - - SAN FRANCISCO.

WHEN YOU BUY,

—BUY—

THE BEST!

—THE—

H.H.H.

Horse Liniment

Is certainly the best preparation of its kind in the market. Ranchers, Stock Raisers and Horse Owners of every description will tell you that it does good work every time.

MESSRS. H. H. MOORE & SONS, Stockton, Cal.—GENTLEMEN: In answer to your inquiry, would state that I used your H. H. H. Liniment on my Holland prize-winning cow, "Lena Menlo," for a wrenched shoulder, and it relieved her very much. She calved the next day, and while still suffering from the sprain gave the largest authenticated quantity of milk ever given on this coast (10½ gallons per day), showing conclusively the great relief received from your remedy. I consider it a necessity in my stables, and when away from home feel perfectly safe, as inexperienced men can do no harm with it, as they can with the more powerful blisters. Respectfully yours, FRANK H. BURKE,
Breeder of Registered Holsteins and Berkshires.
Menlo Park, Cal., January 22d, 1889.

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H. H. MOORE & SONS,

THE DRUGGISTS,

48 MAIN STREET, STOCKTON, CAL.

The Best Article is the Cheapest.

BUHACH

IS THE

Best, Purest and Most Effective Insect Powder on the Market.

BY ITS INTELLIGENT USE hotels, restaurants, saloons, stores and offices may be kept free from all troublesome insects. It is now regarded as a necessity in most of the principal hotels in the United States, and wherever it has been introduced it has given complete satisfaction. Owing to an increased production of Pyrethrum flowers, from which this valuable article is made, and their improved facilities for reducing them to powder, the manufacturers have this season made a material reduction in their prices.

Send your orders to the

Buhach Producing and Manufacturing Co.,

STOCKTON, CAL.

S. P. TAYLOR PAPER CO.

Paper Manufacturers and Dealers.

FRUIT PAPER!

Lining Paper of every description for Dried Fruit Boxes.

RAISIN WRAPS AND SWEAT PAPERS.

Manilla and Straw Paper in Rolls and Sheets.

Manufacturers of "Eagle" Paper Bags.

418 Clay Street, San Francisco.

CALIFORNIA STANDARD FRUIT DRIER

Is one of the most complete inventions for drying Raisins and Prunes by steam in 24 hours—other fruit less time. No sulphur or potash used. Retains all syrup, juice and flavor in original purity. Capacity, dries from 75 lbs green fruit to 20 tons. Send for circulars. CALIFORNIA FRUIT EVAPORATING & M'f'G CO., 347½ S. Spring St., Los Angeles, Cal.

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Whitewash Your Barns and Fences!

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WM. WAINWRIGHT,

No. 5 Spear Street, San Francisco, Cal.

APIARIAN SUPPLIES. Golden Italian Queens Tested, $2.00 each; untested $1.00 each. L Hives, $1.00 each. Root's V groove sections, $5.00 per 1000. Dadant's comb foundation, 55c and 65c per pound. Smokers, $1.00 each. Globe veils, $1.00 each, etc. WM. STYAN & SON, San Mateo, Cal.

THE GIANT POWDER COMPANY,

— PATENT OWNERS OF —

NOBEL'S DYNAMITE, NOBEL'S EXPLOSIVE GELATINE, NOBEL'S GELATINE-DYNAMITE, AND THE JUDSON IMPROVED POWDER.

Best and Strongest Explosives in the World.

JUDSON POWDER.

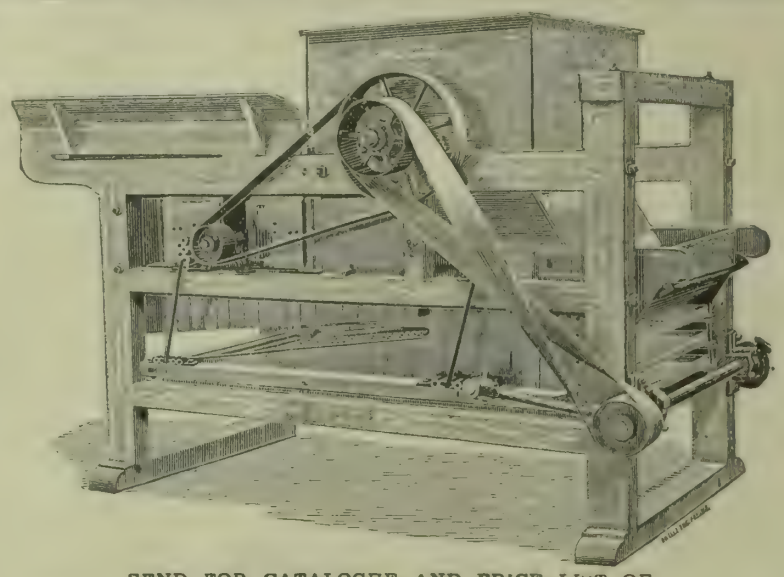
The only Reliable and Efficient Powder for **Stumps and Rank Blasting.** Railroad Contractors and Farmer use no other. **As others IMITATE our Giant Powder, so do they Judson, by manufacturing an inferior article.**

BLACK POWDER.

The Giant Powder Co. having built Black Powder Works, with all the latest improvements, at Clipper Gap, Placer County, known as **THE CLIPPER MILLS**, offer this powder and guarantee it the best

CAPS and FUSE at Lowest Rates.

THE GIANT POWDER COMPANY, 30 California St., San Francisco.



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CARBOLINEUM AVENARIUS.

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And Dealers in Fruit, Produce, Poultry, Game, Eggs Hides, Pelts, Tallow, etc., 422 Front St., and 221, 223 225 and 227 Washington St., San Francisco.

—THE—

Porteous Improved Scraper

Patented April 3, 1883. Patented April 17, 1883.

Manufactured by G. LISSENDEN.

The attention of the public is called to this Scraper and the many varieties of work of which it is capable, such as Railroad Work, Irrigation Ditches, Levee Building, Leveling Land, Road Making, etc.

This implement will take up and carry its load to any desired distance. It will distribute the dirt evenly or deposit its load in bulk as desired. It will do the work of Scraper, Grader, and Carrier. Thousands of these Scrapers are in use in all parts of the country.

This Scraper is all steel—the only one manufactured in the State.

Price, all Steel, four-horse, $40; Steel two-horse, $31. Address all orders to G. LISSENDEN, Stockton, California.

S. F. MARKET REPORT

Market Review.

SAN FRANCISCO, July 27, 1892.

For the week under review cereals have had good support, notwithstanding strong bear raids on Call and reported fictitious sales at prices lower than were paid for actual delivery. The large list of deep sea vessels, engaged and disengaged, in port, with a liberal supply on the way to California, Oregon and Washington ports, are greatly in favor of the wheat growers. The acreage seeded to wheat in this State was not as large as had been estimated, but the yield is larger than it was in 1891. Foreign advices, as a rule, are in favor of a bull market, as are advices from the great grain-growing States east of the Rocky mountains. Barley has met with a free demand. The buying has been chiefly of the more choice grades for home and export. The acreage seeded to barley was about ten per cent more than was that in 1891, while the yield to the acre is also larger; but a short crop East and only fair crops abroad give a reasonable hope that the surplus will be marketed at fairly remunerative prices. Oats shaded off under freer receipts and stronger selling. The crop is larger than was that in 1891. The acreage planted to corn was considerably less than was that in 1891, while the yield to the acre promises to be hardly an average. Eastern mail advices state that estimates of the corn crop in the United States have been reduced. Many well informed authorities place the aggregate yield at from 1,400,000,000 to 1,500,000,000 bushels. If these estimates should prove to be correct, then the outturn this year will be about 750,000,000 bushels below that in 1891. Rye has had good support in both an export and home demand. Ground feed has moved off quite freely at steady prices. Hay began to strengthen under lighter receipts, but toward the close receipts are again large, which created a more conservative feeling in buyers. As indicated in last week's issue, the more choice grades of butter and cheese are doing considerably better with an advance established. Eggs are cleaning up and as the supply of poor to fair lessens the better kinds stiffen. Garden stuff, except corn and river tomatoes which sold lower, has moved off quite freely at around prices current the preceding week. Onions have moved off slowly at unchanged quotations. Potatoes had poor support from buyers, and with free receipts concessions were in order. Poultry has ruled quite steady. Colored and Lima beans scored another advance under moderate supplies, a good demand and a light crop. Honey has held firm. Hops have strengthened with buyers willing to contract at an advance on bids lately current. This is due to unfavorable crop advices received from New York, England and Germany. Wool has held to unchanged figures. Live stock has not changed essentially, although a weaker tone is reported in bullocks. Fruit has fluctuated. Berries sold lower on Friday and Saturday, strengthened on Monday, and yesterday blackberries sold lower, while the other varieties held steady. Peaches held up well until Monday, when at the auction sale lower prices were established, with another lower range at the auction sale yesterday. Bartlett pears suffered in a like manner. Apricots, none of which have been sold at auction, shaded off slightly on Friday and Saturday, but were firm on Monday, and yesterday they sold higher. Canners were the leading buyers. Apples have been steady, as have plums, nectarines and prunes. Only peaches and pears have been sold at auction, both of which have sold down. There is a very strong buying competition between canners and shippers for peaches, apricots and pears. Canners are quite anxious for the two former. They are also taking plums and pears more freely than for over two years. Confirmed advices of short crops at the East, and an active demand at higher prices for the canned product, are the stimulus. Dried fruit is doing better with higher prices bid for all kinds. Even apples show signs of advancing. Our Eastern advices report strong and somewhat excited markets at improving prices, yet the same advices report that the trade is not taking hold much as yet, being skeptical. This indicates that the movement is largely, if not altogether, speculative. Raisins are creeping up. Buyers are taking everything in sight and freely contracting for future delivery. New York advices report the market higher for 1891 stock, with the tendency still upward. Some dealers claim that if the cholera, now reported in Russia, should spread to Italy, Spain and France, California prunes, raisins, etc., will be the gainer, for importation from the above nations will stop. Not to be outdone, nuts are stronger. At New York, Tarragona and Ivica, almonds have moved up considerably, while Brazil nuts gained several points. The advance is due to short crops abroad. The advance in almonds and Brazil nuts has strengthened the other varieties.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	July.	Aug.	Sept.	Oct.	Nov.
Thursday	6s08½d	6s08¾d	6s08¾d	6s09 d	6s09 d
Friday	6s08½d	6s08¾d	6s08 d	6s08¾d	6s08¾d
Saturday	5s08 d	6s08¾d	6s08 d	6s08¾d	6s08¾d
Monday	6s07 d	6s07½d	6s07½d	6s07¾d	6s07½d
Tuesday	6s07¾d	6s08 d	6s08¼d	6s08¾d	6s08¾d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market for P. S.	Weather.
Thursday	33s9d	34s9 l	33s9 l	Warm.	Favorable.
Friday	33s d	34s9d	33s9d	Quieter.	
Saturday	33s d	34s9d	33s9d	Downward.	Fine.
Monday	34s d	34s6d	33s9d	Slow.	
Tuesday	34s3d	34s6d	33s9d	Steady.	

To-day's cablegram is as follows:

LIVERPOOL, July 27.—Wheat rather firmer. California spot lots, 7s; off coast 34s 6d; just shipped, 34s 9d; nearly due, 34s 3d; cargoes off coast, firm; on passage, firmer and held higher; Mark Lane wheat, steady.

New York.

The following shows the closing prices of wheat for the past week:

Day.	July	Aug.	Sept.	Oct.	Dec.
Thursday	....	143	143½	....	149⅛
Friday	....	141⅞	142⅛	....	148⅜
Saturday	....	141½	141⅞	....	148
Monday	....	141	141⅜	....	148⅜
Tuesday	....	141	141½	....	148

The following are to-days' telegram:

NEW YORK, July 27.—Wheat, 83⅞c for August, 84¼c for September and 88⅛c for December.

CHICAGO, July 27.—Wheat, 77¾c for September and 80⅝c for December.

San Francisco.

WHEAT.

	Seller '92.	Buyer Aug.	Buyer Sept.	Buyer Oct.	Buyer Dec
Thursday, high st	138⅛	140	141⅛	....	144
" lowest	137⅞	1 93	140	....	143¼
Friday, highest	137⅞	....	....	....	143⅜
" lowest	137⅞	....	....	....	143
Saturday, highest	137¼	....	....	....	142¼
" lowest	137	....	....	....	142¼
Monday, highest	137	....	....	....	142½
" lowest	136¾	....	....	....	142½
Tuesday, highest	137¼	....	140½	....	143¼
" lowest	137⅛	....	140½	....	143

The following are to-day's recorded sales on Call:

Wheat—Morning—Informal—Seller 1892, 300 tons, $1 37⅜; 100, $1.37½ ₩ ctl. Regular Session—No sales. Afternoon — Wheat — Buyer December, 300 tons, $1.42⅞ ₩ ctl.

BARLEY.

	Seller '92.	Buyer Aug.	Buyer Sept.	Buyer Oct.	Buyer Dec
Thursday, highest	91	....	....	....	96⅛
" lowest	90⅞	....	....	....	96⅛
Friday, highest	91	....	....	92¼	....
" lowest	90⅞	....	....	93	....
Saturday, highest	91	....	....	....	....
" lowest	90⅞	....	92½	....	....
Monday, highest	90⅞	....	92½	....	96¾
" lowest	90⅛	....	....	....	96
Tuesday, highest	91⅛	....	....	94	....
" lowest	91¼	....	....	93¾	....

The following are to-day's recorded sales on Call:

Barley—Seller 1892, new. 1100 tons, 91¾c; 300, 91⅞c. December—200 tons, 97½c. No. 1 Brewing, July-August, 100 tons, 99¾c ₩ ctl. Regular Session—Seller 1892, new. 100 tons, 91⅞c; 400, 91¾c ₩ ctl.

Markets by Telegraph.

Eastern Canned Fruit Markets.

NEW YORK, July 24.—The market is active and wholesomely excited, as buyers all comprehend the crop situation. The sales for the week reached 50,000 cases, if not more. The B. F. Packard's large delivery this week was more welcome than depressing. Baltimore is forced to retain her identity in the peach trade, and is for coast packed through New York brokers. Operations here are at the following list: New standard Crawford peaches, f. o. b., $1 80; Lemon Cling, $1.90; apricots, $1 45; plums, $1.30; pears, $1.75; white cherries, $2.91. Spot or future are quoted on a similar basis.

Eastern Dried Fruit Markets

NEW YORK, July 24.—There is some inquiry for unpeeled peaches, f. o. b., at 11½c; also for Royal apricots at 13c; Moorparks, 14c. New York is buying raisins outside for use at 4¼ to 6c per bag.

Eastern Wool Markets.

NEW YORK, July 22.—There is good business doing in wool. The mills are busy and large amounts are going into consumption. The markets are well stocked and daily arrivals from the West are heavy. The receipts from Montana are steadily increasing. These wools, and, in fact, nearly all western wools are showing up much better than was expected. Prices are steady and, while the tendency is upward, no change in quotations can be made. Manufacturers are giving their attention almost exclusively to domestic wools, comparatively light trade being reported in foreign grades. Fleeces show considerable activity, as, in fact, all wools from Ohio and Michigan. Heavy rains in Michigan at a time when shearing was going on injured to some extent a large part of these wools. Large sales of Texas wools continue to be reported. Territories are being looked over very carefully and large amounts have been taken by manufacturers. Pulled wools are rather quiet. It is said that 21,000 bales were taken at the London sales for this country. This was much larger than the dealers expected.

NEW YORK, July 24.—Another week of heavy trading is reported. At Boston the sales ran largely upon clothing sorts. Texas wools are said to be nearly all in manufacturers hands. Some desirable lines are being lofted with a view to ultimate better prices than those so long current. Sales at New York, 460,000 lbs domestic and 673,000 lbs of foreign. Sales at Boston, 4,918,100 lbs of domestic and 667,000 foreign. Sales of unwashed were largely Utah and Texas. Philadelphia markets were less well attended, but sellers are hopeful of early active trade, as few mills are idle and prices suit the demand.

English Hop Crop Notes.

W. H. and H. Le May, in their London circular, July 11, say: The market continues in a very quiet state, and prices are decidedly in buyers' favor, holders being anxious to clear out, although stocks never were smaller and the crop prospect is not all that could be wished, as there is certainly an increase of vermin in most grounds, and it is possible that the groth may turn out a dirty one, similar to that of 1888, when two-thirds of the hops were black at the core. American advices confirm the reports that there is a good deal of vermin in Washington and Oregon, but Californian and New York are going on very favorably. The American markets are very weak. Continental markets are also in a very depressed state, the demand being very small, crop reports from most of their districts being favorable.

Foreign Markets by Telegraph.

LONDON, July 25. — The Mark Lane *Express* says: English wheats are firmer, averaging 30s; foreign advanced 1s. Markets have stiffened. Flour is in demand, 3d higher. There have been increased dealings in corn, American selling at 21s 6d: Barley, 8d higher; oats, beans and peas firm. In to-day's markets English wheats were readily taken 6 l higher; foreign, 6d dearer for Indian; others unchanged. Flour, corn, oats, beans and barley 6d better.

Miscellaneous.

NEW YORK, July 24.—Honey—The Coast offer of 6¾c for water white and 6½c for light amber are above buyers' views. Lima beans have advanced daily, closing firm at $2.10 per bushel spot. There is not enough stock in sight to fill new orders. Hops—State have advanced through the efforts of a few spot and country holders, and now range from 22@26c, with strictly choice held above 26c. Brewers' purchases are moderate. Pacifics range strong at 22@25c.

NEW YORK, July 26.—Hops are strong with a firm undertone. Pacifics, choice '91s, 24½@25c. European advices regarding crops are rather unfavorable, reporting increased vermin in some parts of England. Beans—Sales of dried California Lima Beans are reported at $2.10 ₩ bushel. The spot market is quicker.

General Remarks and Statistics.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending July 26, '92, were as follows:

Flour, qr. sks	85,409	Bran, sks	12,959
Wheat, ctls	82,161	Buckwheat "	....
Barley, "	54,644	Middlings "	3,512
Rye, "	245	Chicory, bbls	101
Oats, "	8,202	Hops, "	....
Corn, "	1,312	Wool, "	530
*Butter, "	633	Hay, ton	3,047
do bxs	769	Straw, "	36
do bbls	4	Wine, gals	175,600
do kegs	159	Brandy, "	4,440
do tubs	30	Raisins, bxs	....
do ½ bxs	182	Honey, cs	152
†Cheese, ctls	618	Peanuts, sks	....
do bxs	123	Walnuts "	....
Eggs, doz	28,500	Almonds "	....
do " Eastern	28 000	Mustard "	....
Beans, sks	4,712	Flax "	838
Potatoes, sks	22,983	Popcorn "	143
Onions, "	4,019	Broom corn, bbls	....

*Overl'd, 243 ctls. † Overland, — ctls.

From reliable advices up to July 26, the following summary tonnage movement is compiled:

	On the way 1892.	On the way 1891.	In port 1892.	In port 1891.
San Francisco	261,358	326,128	*179,225	68,754
San Diego	19,457	25,000	4,307	.....
San Pedro	6,602	2,525	....	8,474
Oregon	58,212	33,212	26,285	
Puget Sound	25,847	30,337	.....	
Totals	371,486	417,272	209,817	77,228

*Engaged for wheat, 1892, 50,785; 1891, 59,136

Exports by Sea from San Francisco from July 1 to July 19.

	1892-93	1891-92
Wheat, ctls	294,750	537,940
Flour, bbls	33,666	18,003
Barley, ctls	57,248	83,895

Acreage Seeded to Wheat and Barley.

We are uder obligations to Hon. Chas. M. Coglan, Sec'y State Board of Equalization, for returns of county assessors of the acreage seeded to wheat and barley in this State in 1892, which we give in comparison with the three preceeding years:

WHEAT.

Counties.	1889 Acres.	1890. Acres.	1891. Acres.	1892 Acres
Alameda	21,265	16,429	30,685	35 785
Alpine	450	400	400	350
Amador	4,560	3,575	3,800	*4,000
Butte	92,208	73,767	91,117	*96,000
Calaveras	8,500	6,500	6,500	5,400
Colusa	403 008	386 477	203,128	*210,000
Contra Costa	77,915	50,250	44 502	43,365
Del Norte	60	36	.....	19
El Dorado	2 597	973	4,134	4,700
Fresno	169,512	196 904	295,150	324,000
Glenn	.....	.....	150,425	985,000
Humboldt	20,564	1,526	2,517	2 010
Inyo	399	2,316	1,379	1,797
Kern	12,000	17,000	20 000	23,000
Lake	6,220	4,200	7,950	6 650
Los Angeles	50,760	75 150	63,242	48,765
Marin	343	.....	644	543
Mariposa	639	527	459	408
Merced	240 000	177,500	230,500	*230,000
Modoc	45,800	35,200	43,500	32,200
Monterey	120,000	135,000	145,000	13 000
Napa	8 653	7,462	8,385	*7,500
Placer	16,249	11 147	16,037	16,120
Sacramento	78,100	55,000	81,150	*80 000
San Benito	46,600	35,800	51,202	*50 000
San Bernardino	3,551	4 651	4,302	*4 500
San Diego	14,026	25,145	26,038	24,476
San Joaquin	290,805	199,579	301,150	275,018
San Luis Obispo	98,385	95 617	101,650	125,750
San Mateo	1,825	1,500	2,000	2,000
Santa Barbara	71,427	54,720	55,725	38,240
Santa Clara	17,240	15,950	16 300	15,312
Santa Cruz	5,126	5,248	5 517	5,312
Shasta	14,051	2,154	13,620	16,400
Sierra	151	300	200	300
Siskiyou	9,554	13,125	16 215	*18,000
Solano	57,624	43,210	83,616	83,866
Sonoma	15,820	12,250	13 460	*12,000
Stanislaus	283,182	211,342	291,431	260,339
Sutter	123,920	43,412	66,414	78 589
Tehama	91,410	82,312	83,678	60,841
Trinity	10,008	100	1,200	1,500
Tulare	349,000	350,865	415,585	358,000
Tuolumne	4,000	3,500	3 600	3 900
Ventura	2,637	3,671	5,810	*6000
Yolo	155,000	103,500	149,843	198,043
Yuba	23,375	15,760	30,000	21 247
Totals	3,073,527	2,586,950	3,190,716	3,147,245

*Estimated—returns not in.

BARLEY.

Counties.	1889. Acres.	1890. Acres.	1891. Acres.	1192. Acres.
Alameda	20,967	20,415	63,432	67,932
Alpine	460	400	400	50
Amador	12,515	10,980	12,000	*12,000
Butte	24,619	19,721	25,800	*26,000
Calaveras	1,100	250	3,000	3,300
Colusa	48,683	23,002	26,925	*26,000
Contra Costa	42,270	30,540	28,400	27,375
Del Norte	300	164	320	43
El Dorado	2,002	560	1,506	1,640
Fresno	36,242	34,471	40,250	*40,000
Glenn	.....	.....	12,560	29,109
Humboldt	19,450	1,513	2,069	1,970
Inyo	571	455	397	444
Kern	25,000	3,000	4,500	*4,505
Lake	3,870	2,600	3 100	4 025
Los Angeles	35,290	34,170	38,124	36,203
Marin	417	.....	225	257
Mariposa	5,078	1,802	1,6 2	4,080
Merced	52,000	25,000	36,650	36,000
Modoc	33,000	32 100	31,600	30,300
Monterey	75,000	60,000	80,000	75,000
Napa	5,847	6,374	5,985	*6,000
Nevada	587	.....	.....	150
Orange	.....	19,760	50,000	30 000
Placer	9 670	1,718	10,386	11,662
Sacramento	38,460	26,725	34,215	*34,000
San Benito	16,915	13,680	15,140	*15,000
San Bernardino	103,587	93,450	91,260	*91,000
San Diego	30,447	27,350	41,086	48 719
San Joaquin	108,920	53,049	58,120	74,142
San Luis Obispo	48,360	51,429	75,360	89,000
San Mateo	3,720	3,000	3,500	.....
Santa Barbara	38 149	32,865	38,840	31,690
Santa Clara	20,370	18,560	17,820	16,195
Santa Cruz	3,110	3,226	3,292	2,117
Shasta	6,215	545	7,116	8 9 0
Sierra	1,850	1,600	4,000	3,000
Siskiyou	5,360	2,588	4 065	4,000
Solano	35,720	22,510	31 059	31,359
Sonoma	13,159	.....	8,352	*8 000
Stanislaus	33,149	28 150	33,163	35,163
Sutter	21,840	4,899	14,174	19,887
Tehama	27,840	21,760	16,659	15,594
Trinity	200	200	200	160
Tulare	63,425	65,346	71,250	75,000
Tuolumne	2,000	1,800	1,500	2,000
Ventura	58,738	33,625	45,150	*45,000
Yolo	20,000	12,700	13,550	17,890
Yuba	11,060	4,850	8,500	8,414
Totals	1,167,627	852,902	1,118,867	1,257 710

*Estimated—returns not in.

Cereals.

The Minneapolis *Market Record* says that the wheat crop in southern Minnesota and South Dakota is from 10 days to 20 days behind last year. In the north the crop presents a much more uneven appearance and in North Dakota a good deal of wheat sown on unplowed ground is in very poor condition. Considerable of the acreage in the north may bring out a fair yield, while on the other hand South Dakota has promise of an excellent yield, providing there is no frost and the weather conditions are good. Prime says that all things considered it was a fairly good week just ended, although higher temperatures would have been more favorable for corn. A good part of the winter wheat crop is in shock, but threshing has been delayed by rain. So far the yield is very irregular, both as to yield and quality. Reserves in farmers' hands are very large and there is nothing to prevent the early marketing of the new crop. Satisfactory progress has been made in spring wheat, and the greatest danger now is in early frost. The unevenness of corn still continues and will follow the crops to the end. Oats are beginning to turn and in about two weeks will be ready to cut. The crop of wheat in Australia and New Zealand this year is reported at 34,034 000 bushels, against 33 890 000 bushels last year. This will give approximately the same export surplus as was obtained from the crop last year.

Mark Lane Express, July 4, reports as follows: The rainfall of the last two days of June added considerably to the total for the month, and in some districts sufficed to bring it up to an average. As a rule, however, the June rainfall was deficient over the chief wheat-growing areas, and the present expectations of farmers point to a crop of moderate bulk, short in straw, but of excellent milling quality, and likely to be available for early use after harvesting. The generally favorable promise of the potato fields already supplies a reason for imagining that the consumption of breadstuffs in the approaching cereal year may be somewhat less than usual. In Germany, as well as in the United Kingdom, a cheap and abundant potato harvest has a more direct effect on bread sales than has any other agricultural event. The mean price of English wheat for June was only 30s 1d ₩ qr, as compared with 39s 9d last year, 32s 8d in 1890, 28s 6d in 1889, 31s 8d in 1888, 35s 1d in 1887, 31s 7d in 1886, 33s 6d in 1885, 37s 2d in 1884, and 42s 10d in 1883. The fall on the 10 years, therefore, amounts to 12s 9d ₩ qr, and represents the entire difference between prosperous wheat-growing and crop cultivation at a loss even on good land.

Mail advices just to hand report as follows from France: La Vendee is in full harvest and it is reported that the wheat will scarcely yield sufficient for seed on the light lands, while on the average soils half a crop is expected, but an average on the well-farmed lands. The harvest may be reckoned at three-fourths an ordinary year; the quality appears likely to give satisfaction. With regard to oats, there will be neither quantity nor quality, and it is very probable that several of the central departments will not afford much more satisfaction. The French imports for 11 months of the French cereal year amount to 13 470 000 qrs, the biggest record since the war year, with its partial suspension of home culture of the soil. Stocks have naturally increased in Paris, but not to anything like the extent which might have been looked for. At the present moment 588,593 cwt of wheat and 803,000 cwt of flour are in the Paris granaries, stocks considerably exceeded on each point by what is held in London. It is somewhat curious to note that Paris holds an exceedingly large stock of oats—665,580 cwt, against 220,376 cwt this time last year. There seems little expectation of any change of importance on French wheat prices after harvest, the spot price for old wheat being 39s to 39s 6d ₩ qr, and the speculative price for new wheat 39s to 41s ₩ qr. Such little difference as there is, is in favor of the future.

The wheat market the past week has ruled quite steady, with a strong undertone owing to favorable influences at home and abroad. Buyers have been compelled to pay an advance on current quotations so as to meet urgent requirements. All advices confirm previously received information that farmers are not offering much, prefering to store, believing that present bids by buyers offer inducements to such a course.

Barley has held to strong prices for the more choice grades under free buying for home and export. The consumption of feed grades in this State continues to enlarge.

Oats shaded off under free receipts, but at the close the market is steadier. Holders do not appear disposed to let go freely when buyers bid down.

Corn has advanced, with a strong tone at the close. The improvement is due to a good demand for export, a lessened acreage in this State and a light crop at the East.

Rye continues to strengthen. The support to the market is largely due to a quiet but strong demand, supposed to be for export.

Trading in futures on call has been quite active, with more genuine business done than for weeks past. The fluctuations, while small, are attracting attention.

London cables report as follows: Imports into the United Kingdom for the week ending July 26th: Flour, bbls., 112,000; Wheat, qrs., 262,000. Amount of Wheat and Flour on passage July 26th: To United Kingdom, 1,992,000 qrs.; to Continent, 790,000 qrs. Farmers' delivery of Wheat for week ending July 23d, 40,970 qrs.; average price, 29s 3d.

Feedstuff.

Bran and middlings, under freer receipts, have ruled in buyer's favor, but other ground feed has held to strong prices.

The market for hay continues oversupplied with poor qualities, but there is a scarcity of choice to extra choice. Hay baled with wire sells at from one to two dollars a ton less than do the same grades baled with rope.

Dairy Produce.

Butter has been coming in more sparingly, and as the consumptive demand is enlarging, the more choice grades have fetched an advance, with the closing strong. Eastern advices are still favorable to dairy interests.

Cheese has strengthened under a stronger holding and a good demand. Eastern cheese continues to come to hand quite freely.

In eggs, the market continues to show a wide range, but as the stock of poor to fair is cleaning up, the range will soon be not so wide. Strictly fresh-laid, sent in from near-by points, are gaining in strength, with at times an advance secured on outside quotations.

Vegetables.

Garden stuff has ruled fairly steady for all kinds except green corn and tomatoes, which are lower under heavy receipts and offish buying.

Onions have held around the quotations ruling last week.

Potatoes have come in freely, which sent prices down; but to-day the market appears to be steadier, owing to a shipping demand.

Fruit.

The market has ruled weak for blackberries, but fairly steady for raspberries and strawberries. The receipts of berries are not large, but with heavy supplies of other fruit, they are slightly in excess of the demand.

Peaches and pears have sold lower. Apricots, after shading off, are now selling higher under an active demand. Choice apples are very scarce, but poor are in overstock. Plums are in fair receipt. The market holds up well. Prunes are unchanged. Interior advices continue to report an excited market,

with buyers anxious for prunes, choice apricots and peaches.

It is said that better prices are bid for grapes, but we are not able at this writing to get particulars.

There was a good demand for fruit to-day for shipping, and in consequence good keeping fruit was in demand.

The dried fruit market is excited and higher. Buyers are cleaning up all the 1891 stock that can be found. Offers were made by New York buyers for 1892 prunes at 9½ cts. f. o. b. here for the five sizes, and for peaches bleached 12½ cts. was bid. Apricots are a little easier, yet the tone is far from unsatisfactory. It is only a natural easing from so rapid an advance. A large operator is in the market to-day securing all the 1891 raisins that can be had. He offered an advance on prices ruling a week ago. For new crop raisins $1.45 is bid for good and $1.65 for choice, with better figures for grades still higher. The impression prevails that dried apples and all other kinds of dried fruits will soon be advancing in sympathy with the up-move in prunes, peaches and apricots.

At private sale on yesterday (Wednesday), Crawfords sold up to 67½ cts. per basket. This was the highest price realized, except for Sawyer's Seedlings.

Canneas are paying the following prices: Apricotss, 1¼@2 cts. ℔ lb; plums, 1½@1¾ cts.; pears, 1½@1¾ cts.; peaches, 1½@2 cts.; nectarines, 1¼@1¾ cts. For something extra an advance was paid on the outside quotations.

Live Stock.

The market is slightly easier for bullocks and barely steady for mutton sheep. Dairy-fed calves are firm. The consumption is light owing to more liberal supplies of fruit.

Miscellaneous.

Poultry has held to steady figures throughout the week. Poor, scrubby stock sells at lower figures than quoted, while extra stock sells at an advance on outside quotations.

Hops are more inquired after. The first bale of the 1892 crop went forward the past week.

Wool is fairly steady. Assortments are somewhat broken. The East reports an active market.

For hog product there is a good demand at unchanged prices.

Honey is coming in quite freely, but holders are firm.

Grain hogs are lower and very slow.

Nuts are quiet, but the tone is strong in sympathy with an advance at the East in almonds and Brazil owing to short crops abroad.

Colored beans and Limas are strong and higher but whites are weak.

General Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lowe quotations.

WEDNESDAY, July 27, 1892.

BEANS AND PEAS.		Do fair	1 35 @ —
Bayo, ctl	2 75 @ 3 00	Common	1 30 @ —
Butter	2 50 @ 2 85	Sonora	1 33¾@ 1 45
Pea	2 25 @ 2 50	**HOPS.**	
Red	2 75 @ 3 00	1891 Choice to Ex.	20 @ —
Pink	2 50 @ 2 60	Fair to Good	18 @ —
Small White	2 20 @ 2 45	1892 Bid	15 @ 17½
Large White	2 10 @ 2 35	**FLOUR.**	
Lima	2 75 @ 3 05	Extra, City Mills	4 65 @ 4 75
Fld Peas, blk eye	3 00 @ 3 30	Do Country Mills	4 50 @ 4 75
Do green	1 50 @ 2 75	Superfine	2 75 @ 3 10
Do Nlles	1 30 @ 1 40	**NUTS—JOBBING.**	
Split	4 50 @ 5 50	Walnuts, Cal. ℔	6 @ —
BUTTER.		Do Choice	8 @ —
Cal. Poor to fair, ℔	15 @ —	Do paper shell	9 @ —
Do good to choice	18 @ —	Almonds, aft shl.	11 @ —
Do Giltedged	— @ 24	Paper shell	14 @ —
Do Creamery rolls	— @ 24	Hard Shell	6 @ 7½
Do do Giltedge	— @ 25	Brazil	9 @ 10
Eastern	— @ —	Pecans small	11 @ 13
CHEESE		Do large	14½@ 16
Cal. choice cream	9 @ —	Peanuts	3½@ 4½
Do fair to good	7½@ —	Filberts	11 @ —
Do gilt edged	— @ 10	Hickory	7 @ 8
Do skim	5 @ 6½	Chestnuts	11½@ 16
Young America	— @ 11	**ONIONS.**	
EGGS.		Silverskin	40 @ 50
Cal. "as is," doz.	16 @ 18	**POTATOES.**	
Do candled	19 @ 22	Early Rose, ctl.	40 @ 60
Do choice	23 @ 24	Do do in boxes.	55 @ 90
Do fresh laid	25 @ 26	Peerless	50 @ 65
Do do selected	— @ 27½	Do in boxes	55 @ 85
Eastern "as is"	14 @ 16	Garnet Chilies	60 @ 85
Do candled	17 @ 18	Burbank Seedlings	50 @ 65
Do selected	19 @ 22	Do do in boxes.	65 @ 90
Outside prices for selected large eggs and inside prices for mixed sizes—small eggs and hard to sell.		**POULTRY**	
		Hens, doz	5 50 @ 8 00
		Roosters, old	6 00 @ 7 00
		Do young	5 00 @ 7 50
		Broilers, small	2 00 @ 3 50
FEED.		Do large	3 50 @ 4 00
Bran, ton	17 00 @18 50	Fryers	4 50 @ 5 50
Feedmeal	27 00 @30 00	Ducks	4 00 @ 4 75
Gr'd Barley	20 50 @22 00	do, large	5 00 @ 5 50
Middlings	20 00 @21 50	do, extra large	6 00 @ —
Oil Cake Meal	— @25 00	Geese, pair	1 25 @ 1 75
Manhattan Food ℔ cwt.	7 50	Goslings	— @ —
HAY.		Turkeys, Gobl'r.	18 @ 20
Wheat, per ton.	8 00 @ —	Turkeys, Hens	16 @ 18
Do choice	— @12 50	Manhattan Egg Food ℔ cwt.	11 50 @ —
Wheat and Oats	8 50 @11 00	**PROVISIONS.**	
Wild Oats	8 00 @11 00	Cal. Bacon, he'vy, ℔	10½ @ —
Cultivated do	7 00 @10 00	Medium	11½ @ —
Barley	6 00 @ 9 00	Light	13 @ —
Alfalfa	7 00 @ 9 00	Lard	9½ @ 12
Straw, bale	40 @ 50	Cal. Sm'k'd Beef	11½@ —
GRAIN, ETC.		Hams, Cal salt'd	11½ @ —
Barley, feed, ctl.	88¾@ 91½	do Eastern	14½@ —
Do Choice	92½@ —	**SEEDS.**	
Do Brewing	93¾@ —	Alfalfa	— @ —
Do do Choice	1 01½@ —	Clover, Red	14 @ 15
Do do Giltedge	1 05 @ —	White	20 @ —
Do Chevalier	1 05 @ 1 25	Flaxseed	2 00 @ 2 25
Do do Giltedge	1 30 @ 1 35	Hemp	3½@ 4
Buckwheat	— @ —	Mustard, yellow	3½@ 4
Corn, White	1 35 @— —	do Brown	3 @ 3½
Yellow, large	1 30 @— —	**WOOL.**	
Do small	1 35 @— —	**SPRING, 1892.**	
Oats, milling	1 50 @ —	Humb't & Men'cino	17 @ 21
Feed, Choice	1 45 @ —	Sac'to valley	16 @ —
Do good	1 37½@ —	S Joaquin valley	11 @ 16
Do fair	1 32½@ —	Cala'v & F'th'll.	16 @ 21
Surprise	1 55 @ —	Oregon Eastern.	12½@ 19
Black Cal	— @ —	do valley	18 @ 23
Do Oregon	1 32½@ —	So'n Coast, def.	10 @ 12
Gray	1 32½@	Nevada (State).	15 @ 19
Rye	1 20 @ —	**HONEY.—1892 CROP.**	
Wheat, milling.		WhiteComb, 2-lb	8 @ 11
Gilt edged	1 48¾@ —	do do 1-lb frame	10 @ 13
Do Choice	1 45½@ —	White extract'd	6½@ 7
Do fair to good	1 42½@ —	Amber do	5½@ 6
Shipping, cho'ce	1 40 @ —	Beeswax, lb	25 @ 28
Do good	1 37½@ —		

Live Stock.

BEEF.		**MUTTON.**	
Stall fed	5½@—	Wethers	@—
Grass fed, extra	5½@—	Ewes	7½@—
First quality	4½@—	Do Spring	9 @—
Second quality	4 @—	**HOGS.**	
Third quality	3¾@—	Light, ℔ lb, cents	5¾@—
Bulls and thin Cows	2 @—	Medium	5½@—
VEAL.		Heavy	5 @—
Range, heavy	4 @—	Soft	4½@—
Do light	5 @—	Feeders	3½@—
Dairy	6 @—	Stock Hogs	3½@—

Twine and Baling Rope.

BALE ROPE.		**TWINE.**	
Sisal, 3 and 4 yarns	9½	Pure Manila Hop, in balls, tarred	12
Do, 2 yarns, light	10	Do, Grape-Vine, in balls or coils	12½
Duplex, 3 yarns	9½	Do, Spring	16
Manila, mixed, 3 yarns, heavy	11	Duplex Hop, in balls, tar'd	10
Pure Manila, 3 and 4 yarns	12½	Do, Grape-Vine, in balls or coils	11
Do, 2 yarns, light	13		

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, July 27, 1892

Limes, Mex	2 50 @ 3 50	Plums, Duane's Purple	50 @ 65
Do Cal	— @ —	Do Peach	65 @ 85
Lemons, box	1 50 @ 4 00	Do Wash	50 @ 65
Do Sicily	5 00 @ 6 00	Do Pedro	40 @ 50
Oranges, Seedlings	1 25 @ 2 25	Pears	50 @ 75
Do Navels	2 50 @ 4 50	Do Bartlett	75 @ 1 25
Oranges frosted and poor sell at a decline of $1@$1 50 per box on the above quotations.		Apricots, pr box	40 @ 65
		do, per lb	1½ @ 2
		Beets, sk	— @ 75
		Carrots, sk	35 @ —
Strawberries, per chest—		Okra, dry, lb	15 @ —
Longworth	7 00 @ 9 00	Do green	6 @ 8
Sharpless	5 00 @ 7 00	Parsnips, ctl	— @ 1 00
Raspberries, ch.	5 00 @ 7 00	Peppers, drv. lb	10 @ —
Peaches, box	— @ —	Do grn Chili, bx	40 @ 50
Do Crawford	35 @ 60	Do do Bells	75 @ 1 00
Do Hale's Early	30 @ 50	Turnips, ctl	50 @ —
Bl'kberries ℔ ch	3 50 @ 5 00	Cabbage, 100 lbs	40 @ 50
Figs, blk box	1 50 @ 2 50	Garlic, lb	1½ @ 3
Do White do	75 @ 1 00	Squash, Sum, bx	15 @ 25
Apples, Bell Flower	65 @ 1 00	Tomatoes,	— @ —
		Do River irg bx	1 00 @ 1 50
Do Red Astrachan	75 @ 1 25	Peas, green, sk.	50 @ 1 75
		String Beans	3 @ 4
Crabapples	75 @ 1 00	Cucumbers, box	35 @ 50
Canteloupes, pr crate	2 50 @ 3 50	do Pickle	60 @ 75
		Mushrooms	30 @ 50
Melons, pr 100	12 00 @18 00	Egg Plant, bx	75 @ 1 25
Grapes, pr bx—		Green Corn, sk.	— @
Do Sweetwater.	60 @ 1 00	Do swt Bay prdz	10 @ 15
Do Black	75 @ 1 25	Do Berkely box	35 @ 55
Prunes, Tragedy	50 @ 1 00		
Do German	65 @ 75		

Grain and Wool Bags.

Calcutta, spot	7 @ 7½
Wool Bags	36 @ 38

Auction Sales of California Fruits.

At New York.

July 23.—Two carloads: Bartlett Pears, $2.05@2.85; Crawford Peaches, $1.10@1.40; Hale's Early Peaches, $1.15@1 30; Blood Plums, $3.30; Japan Plums, $2.85; Peach Plums, $2.70; P. D. Plums, $1.65@2.70; Washington Plums, $2.65@3 25; Tragedy Prunes, $3.60@3.70; German Prunes, $2.75@3.

July 25.—Five carloads: Bartlett pears, $2.10@2.80; Hale's Early Peaches, 80c; Crawford Peaches. 80c @ $1.30; Purple Duane Plums, $2 50; Washington Plums, $2.90; Bradshaw Plums, $2 50; Egg Plums, $3 05; Tragedy Prunes, $2.40@3.50; Nectarines, 85c@$1.50.

July 26.—Three carloads: Strawberry Cling Peaches, 65c@$1.10; Crawford Peaches, 75c@$1.40, Hale's Early Peaches, 50c@$1.05; St. John Peaches; 65c@$1.25; Foster Peaches, $1.05@1.35; Snowflake Peaches, 63c; Nectarines, 25@30c; Grapes, $1.45@1.50; Prunes, $2 25; Yellow Plums, $3 05; German Prunes, $2.75@1.25; P. D. Plums, $1.85@2.70; Japan Plums, $3 37; Bradshaw Plums $3.95; Tragedy Prunes, $4; Bartlett Pears. $2.25@2.55.

July 26.—Three carloads: German Prunes, $2.35; Bartlett Pears, $1.80@2.10; Purple Duane Plums, $1.60; Early Crawford Peaches, 65@80c. Some fruit overripe and in bad order sold for less.

At Chicago.

July 23.—Two carloads: Bartlett Pears $2 10; Fontainebleau Grapes, half crates, $1.65@2.25: German Prunes, $2 60; Centennial Apricots, $1.60; Red Nectarines, $1.40: Foster Peaches, $1.05@1.20; Strawberry Peaches, $1.05@1.10; Early Crawford Peaches, $1@1 35; some Peaches overripe and in bad order sold for less.

July 25.—Five carloads: Bartlett Pears, $1.70@2 10; half boxes, 85c; Crawford Peaches, $1@1.15; Cling Peaches, $1.30; Strawberry Peaches, 75c; St. John Peaches, 90c; Peaches, 65c@$1.25; Grapes, $1.80; Apricots, $1.35; Nectarines, 55c@$1.70; Plums, $1.70@2.90; Hale's Early Peaches, 70c; German Prunes, $2.40; Egg Plums, $2.20; Peach Plums, $2.10; Bradshaw Plums, $1.70@2; P. D. Plums, $1.80@2.30; Washington Plums, $1.95 for crates; boxes, $1.35; Tragedy Prunes, $2.05@3.25.

July 25.—Two carloads: Bartlett Pears, $2.05 ℔ bx.; Red Nectarines, $1.50; Columbia Plums, $2.10; Peach Plums, $2.40; Early Crawford Peaches, 75c@$1.20; Foster Peaches, $1.10; Hale's Early Peaches, 65c@$1; Strawberry Peaches, 65@90c.

July 26.—Two carloads: Bartlett Pears, $1.80@2 05; Early Crawford Peaches, $1@1.10; Centennial, $1.25; Moorpark Apricots, $1.30; German Prunes, $1.65; Hungarian, $1.70@1.90; Washington Plums, $1 80; half crates Fontainebleau Grapes, $1.50. All the Plums were in poor condition.

July 26.—Seven carloads: Bartlett Pears, $1.65@2 15; Apples, $1.60@3.05; Early Crawford Peaches, 75c@$1.15; Nectarines, $1.05@1.10; half crates Fontainebleau Grapes, $1.50@2; Golden Drop Plums, $1.50; Apricots, overripe, $1.05@1 15; Bernard Peaches, $1.19; Tuscan Cling, $1.05; Foster, $1.05@1.10; St. John, 80c@$1.

At Boston.

July 21.—Two carloads: Japan Plums, $2@2.30; Peach Plums, $2.35@2.55; Purple Duane Plums, $1 25 @1.40; Tragedy Prunes. $4.60; Bartlett Pears, $2,90; Hale's Early Peaches, $1.05.

July 22.—Two carloads. Bartlett Pears, $2.25@2.40; Purple Duane Plums, 95c@$1.60; Peach Plums, $1 25@ 2.25; Royal Native Plums, $1.15; Japan Plums, $1.50 @2; Hale's Early Peaches, 75c@$1.15; Early Crawford Peaches, 90c@$1.25.

July 23 —One carload Bartlett Pears to-day realized an average of $2.22 ℔ box.

July 25.—Three carloads: Bartlett Pears, $2.25 ℔ box; Tragedy Prunes, $4.10; Early Crawford Peaches, $1.25@1.35; Purple Duane Plums, $1.70.

July 26.—One carload: Bartlett Pears, $1.70@2.

At Minneapolis.

July 21.—Two carloads: Peaches, $1@1.70; Plums, $2.20@2.75; Nectarines, 75c@1.20; Grapes, $2.05@2.15; Tragedy Prunes, $2 75.

July 22.—One carload Bartlett Pears at $2.15@2.25 ℔ box.

July 25.—Two carloads: Bartlett Pears, $2.15@2.25; Peach Plums, $2.50; Purple Duane Plums, $2 50; Hale's Early Peaches, $1.20; Early Crawford Peaches, $1.25.

July 26.—One carload: Bartlett Pears, $1.85; Early Crawford Peaches, 85@90c; German Prunes, $1@2; Bradshaw Plums, $1.85; Washington Plums, $1 80@ 1.90; Peach Plums, $1.90; Japan Plums, $1.90; Purple Duane Plums, $1.90@2.

July 26 —Two carloads: Pears, $1.75; Crawford Peaches, 75c@$1; Hale's Early Peaches, 50@75c; Purple Duane Plums, $2; Peaches, 40@50c. Weather very hot.

NOTICE.

Regular AUCTION SALES of

Green Fruit, Vegetables & Produce of all kinds

Will Take Place **EVERY DAY at Jackson Street Wharf, and at the Store,**

408 & 410 DAVIS ST., SAN FRANCISCO.

P. STEINHAGEN.

PATRONS OF HUSBANDRY.

The Secretary's Column.

By A. T. DEWEY, Secretary State Grange of California.

SANTA ROSA.—Secretary Babcock, of Temescal Grange, who visited Santa Rosa several weeks ago, informs us that Sonoma County Pomona Grange concluded not to recommend the Supervisors of the county to make an appropriation in addition to the State's appropriation for the World's Fair. Four candidates took the first degree in Santa Rosa Grange, and two applications were received, including the youngest son of Judge S. T. Coulter.

EVERY Grange in California has paid its dues to the State Grange up to March 31st except Nos. 289, 147, 203, 242 and 15. We still hope for a good report from each of these Granges. Let us hear from all.

LAST year, owing to droughts fatal to crops the previous season in portions of Nebraska, quite a number of Granges had their dues remitted by the State Grange, showing a truly "paternal" as well as "fraternal" side to our Order.

W. P. CRANE, P. M. of Bennett Valley Grange, was recently married to Miss Edith Hughes.

FARMERS TO THE FRONT.

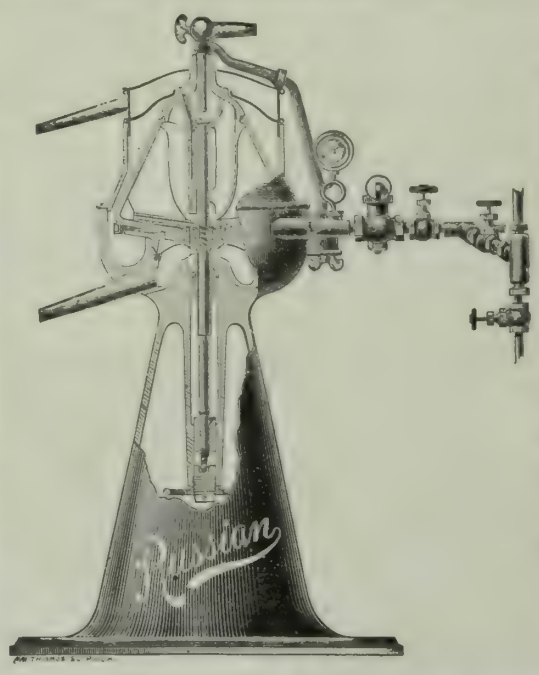
E. W. Davis, Master of the State Grange of California, was nominated for member of the U. S. House of Representatives from the First District of California at the Republican District meeting at Sacramento on July 26th, by a vote of 50 to 31. We wish Congress could be filled with as good men as Brother Davis and are glad to see that it is becoming more the fashion with political parties to nominate now and then an honest farmer for high and trustworthy positions. Who next?

STATE GRANGE ALTERNATES.

Every Grange should elect alternate representatives to the State Grange to act in the case of absence of the Master or the Master's wife or husband during any portion of the session. There being no fixed period of election, Granges can make their selection at any time previous to the coming session, Oct. 4th. The election of alternates should be promptly reported to the Secretary of the State Grange for placing on the record and roll call.

The amended Constitution of the National Grange provides as follows: State Grange: Article I, Sec. 1—Fifth Degree, Pomona (Faith).—Composed of Masters and Past Masters of Subordinate Granges, and their wives who are Matrons, *and such fourth-degree delegates as may be found necessary to secure to each subordinate Grange two representatives.* The fourth-degree members above provided for to be chosen in such manner as the respective State Granges may prescribe. Provided, that Past Masters and their wives, who are Matrons, shall be honorary members, eligible to office, but not entitled to vote.

Messrs. Brown, Craig & Co., a leading insurance firm on this Coast, is now sending out a valuable may complimentary for every Grange hall in this State. The maps will doubtless be carefully preserved and referred to by members during the present and future political campaigns.



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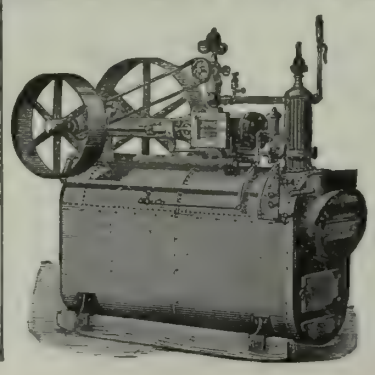

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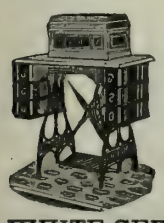

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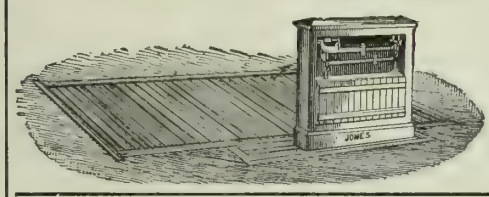

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The State Board of Agriculture stands ready to assist the producer, and by gathering your exhibits and showing them at home at the State Fair, you can take advantage of the cash awards to assist you in the good work. All exhibits shown at the State Fair will be kept free of storage until their removal. BEGIN WITH HARVEST.

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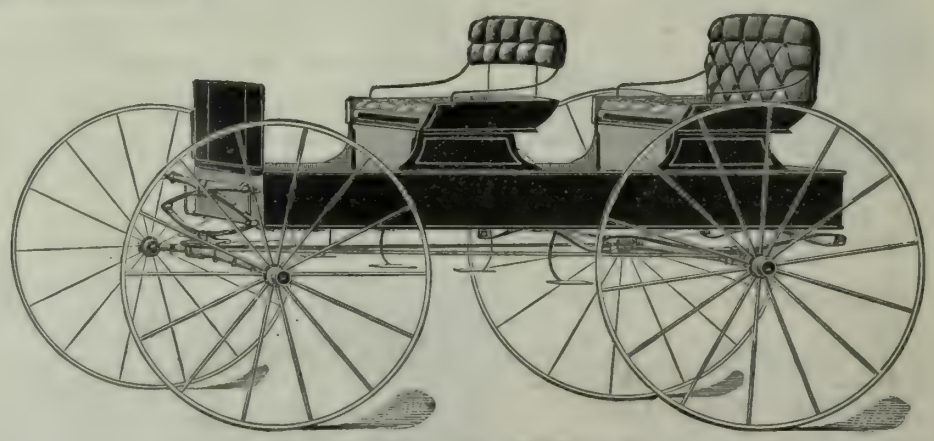

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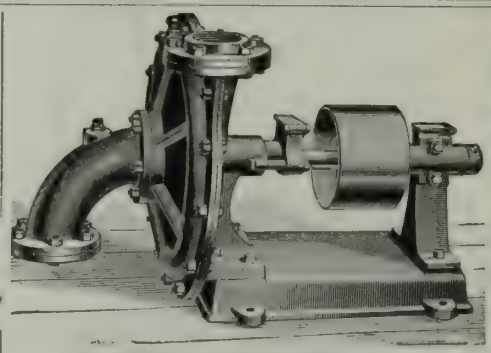

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Send for book showing cheap irrigation, mailed free.

PACIFIC RURAL PRESS

Vol. XLIV. No. 6. SAN FRANCISCO, SATURDAY, AUGUST 6, 1892. THE DEWEY PUBLISHING CO. Office, 220 Market St.

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Commercial Floriculture.

The production of flowers and flowering plants, together with the seeds and bulbs thereof, for distant shipment, cannot yet be counted a great industry of the State, and yet it is one of our most interesting lines of out-door activity and one most promising of substantial increase. It is true that anticipation has not always resulted in material realization. Several large undertakings projected for supplying florists' stock, and for the production of various perfumes, met with obstacles which seemed to their promoters insuperable, and yet smaller undertakings beginning in a small way, and proceeding upon the results of local experience, have attained respectable prosperity and growth. Those engaged in such undertakings have already attained a national reputation. Though we have one instance of a great nursery and florist business proceeding with the aid of large capital and business skill of demonstrated capacity in other lines of vigorous endeavor, most of our successes in commercial floriculture have been secured by those who brought little to the effort but individual knowledge and devotion. These enterprises have been built up gradually, catching every breath of public favor as a motive power for progress. Such undertakings are as safe in commercial floriculture as in every other line of productive effort, and California conditions of soil and climate are most faithful allies of those who put forth the effort.

We have said the aggregate floral interest of the State is as yet not large. The California State Floral Society appointed a committee to secure an approximate report of the "ornamental horticultural industries of California" for the Census of 1890. It was shown that 300 acres, with 500,000 square feet of glass area, were at that time devoted to commercial floriculture in California, while 1000 men and 150 women were given employment, and the total value of the establishments was estimated to be $200,000. These figures related to the year 1889, and so great has been the increase of late that we should calculate the present investment at twice these figures.

Flower culture for profit is so nearly allied to amateur floriculture that it naturally commands wide attention, and is fostered in current popular literature. One of the best recent magazine articles was by Ninetta Eames in the *Overland* last December. We take therefrom three views which appear upon this page. They are in part illustrative of the facts we are presenting. The broad field of callas will certainly interest our Eastern readers who know the plant only as imprisoned in a pot in greenhouse or window garden. Of late, the Eastern demand for calla bulbs has greatly increased, and commercial plantings like that in the engraving have been inadequate to the supply. It is stated that a very large shipment was made from San Diego, the florist collecting material from the great masses in private gardens. It is only natural that a country where the calla thrives in the open air and attains such size of bloom, and such strong root extension, should furnish the stock for growth in regions where the plant requires protection.

GLIMPSE AT A HEDGE OF PAMPAS PLUMES.

FIELD CULTURE OF CALLAS AS PRACTICED IN CALIFORNIA.

Another plant which has attained considerable commercial importance in California is the pampas grass. The plume product has been too frequently mentioned in the RURAL to require further comment. Mrs. Eames remarks that "in 1887 the plumes were in demand at $50 and $60 per thousand, but the average wholesale price is $30. An acre of pampas grass has been known to yield 10,000 plumes annually. England and Germany send the largest orders for California pampas blooms." Of course, one calculating on planting for profit will understand that these figures are, in some respects, extremes.

Smilax still retains its popularity as a decorative material, and though other embodiments of airy grace are becoming popular, smilax will never stale. The product of smilax seed in this State is notably fine. An engraving shows the seed-gathering at Mrs. Theodosia Shepherd's seed garden in Ventura. Last year she produced 160 pounds of the seed. The smilax vines form high screens of fine varnished foliage. When the tiny, star-like flowers have given place to innumerable scarlet berries, the vines are cut close to the ground and piled into large squares of cloth to be thoroughly flailed by the Chinese help. Afterward, the bruised leaves and berries are put into a tub of water, the leaves and pulp floating to the top, when they are skimmed off, while the seeds settle to the bottom.

BEATING OUT SMILAX SEED IN A VENTURA SEED GARDEN.

SAWYER'S SEEDLING PEACH.—Many fruit growers who read the detailed reports of the auction sales of Sacramento river fruit last week doubtless wondered what is the Sawyer seedling peach which sells at about three times the price of other peaches now in the market. We happened to meet Sol Runyon, the well-known Sacramento river fruit grower, who is now shipping this variety. He tells us that the Sawyer seedling originated on the Sacramento river, and is a very handsome white freestone, ripening just after Hale's Early, or about with the Early Crawford. He reports the tree as tender and subject to both curl leaf and mildew, which, however, are less troublesome since the use of salt, sulphur and lime as a winter wash for scales has been in vogue. Mr. Runyon does not recommend the Sawyer seedling as a peach to plant, although the small crop which he has of the variety brings high prices. So far as we know, the variety has not been propagated by our nurserymen.

PACIFIC RURAL PRESS.

By The Dewey Publishing Co.

Office, 220 Market St.; Elevator, 12 Front St., San Francisco., Cal.

Annual Subscription Rate Three Dollars a year. While this notice appears, all subscribers paying $3 in advance will receive 15 months' (one year and 13 weeks) credit. For $2 in advance, 10 months. For $1 in advance, five months. Trial subscriptions for three months, paid in advance, each 60 cents.

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Half inch (1 square	1.00	2.50	6.50	22.00
One inch	1.50	5.00	13.00	42.00

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Our latest forms go to press Wednesday evening.

Registered at S. F. Post Office as second-class mail matter.

Any subscriber sending an inquiry on any subject to the Rural Press, with a postage stamp, will receive a reply, either through the columns of the paper or by personal letter. The answer will be given as promptly as practicable.

ALFRED HOLMAN.....General Manager

Saturday, August 6, 1892.

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BUSINESS ANNOUNCEMENTS.

[NEW THIS ISSUE.]

Hay Presses—Deere Implement Co.
Windmills—R F. Wilson, Stockton.
Cling Fitter—A. G. Carter.
Croup Cure—M. J. Culler, Mt. Pleasant, Iowa.
Money to Loan—Howe, Bandmann & Co.
Insurance—Brown, Craig & Co.

See Advertising Columns.

The Week.

If the World's Fair Commission desires to exhibit at Chicago next year the rarest thing in California, let them offer a reward for a man who sells his fruit early. This year's experience will lead all to wait till the fruit is almost ready to drop. If one figures up his recollections pro and con, there will probably be a good balance in favor of selling a crop about the time it is ready for market rather than selling futures on it. But like other great movements, produce selling goes in waves; after a dull year the producer is an early seller, and *vice versa*. Some time or other, when we get this all reduced to exact knowledge, we shall know just when to sell and what to sell for, and then probably there won't be but a a crop or two to sell before the millenium. But the present activity and the money pouring in from fruit and fruit products are delightful. They will encourage renewed investment, increased planting, and nurserymen and newspaper men will be in for their share of the general prosperity. It will be good all around.

Classifying Dried Fruit Shipments.—Shippers of dried fruit to Eastern points, says the San Jose *Mercury*, should bear in mind that a new order went into effect yesterday in regard to the way of filling out their shipping receipts. In their receipts they must show the different kinds of fruits and the weight of each, and whether they are in packages, sacks or boxes. Figs, dried grapes, prunes and raisins must be billed separately.

The Caminetti Bill.—The hydraulic mining bill, which passed the House, has been considered by the Senate Committee on Mines and Mining. Senator Felton desired to offer one or two amendments, and the Senate Committee thought the measure of too much importance to be hastily considered during the closing days of the session, so that the prospects of passing it this session are gone. The matter will be deferred until Congress again convenes.

Juicy Meat Coming.—During the last two weeks over 15,000 head of beef cattle have been brought from the mountains to fatten in the alfalfa fields in Salt River valley preparatory to shipment to California and Eastern markets. The cattle shipments this year will be unusually large, and the wool clip is also surpassing the calculations of the sheepmen.

Money from Fruit.—The statement of the Bank of Vacaville shows receipts for fruit of $231,000 since May 1st. Last year the receipts for fruit for the same period were only $171,000. A gain of $60,000 is more remarkable when the fact is considered that apricots and plums were light this year and the season late.

Midsummer in the Rose Garden.

Most rose growers must carry with them gratitude and anticipation if they are to derive much satisfaction from visiting their favorites at this season of the year. Let gratitude prompt remembrance of the winter and spring bloom which has passed and anticipation picture the fall bloom, which kind and generous treatment will make hardly less satisfactory. Without such thoughts in mind the dusty bushes, with their load of dried bloom and foliage shriveled with mildew or tarnished with orange rust, can evoke but a single thought, and that is commiseration. The owner commiserates the bushes and possibly condemns them; the passing rose grower commiserates or condemns the neglectful owner. Plainly it is not the fault of the the bushes that they have fallen into such straits; how can they be helped out of them?

It is perhaps impossible under ordinary conditions to obviate the midsummer droop in condition in the rose garden, but it may be unquestionably greatly mitigated. The distressful aspect of the neglected garden can certainly be prevented if one has a drop of water more than he needs to drink. If he has enough to wash himself in he could keep quite a large plantation of roses in fair condition, providing his interest and devotion prompted him to put the waste water where it would do the most good. If he has water enough to flow in a hoe-ditch or to run from a hose, he could reclaim his rose garden, if he had the time and the will, and the latter usually finds the former.

But though water applied so as to cleanse the dust from the foliage and thoroughly moisten the roots of the plant is the chief essential of midsummer decency and comfort to the rosebush, it is not the only desirable thing, nor can it by itself give full satisfaction. The whole year has its successive duties which the grower owes his rose, and condition at any time depends much upon foregoing treatment. He who prunes his bushes guillotine-fashion in the early winter, digs in a coat of manure and then thanks his stars that the roses are fixed once more, will get some good spring roses on some bushes and some magnificent blooms, perhaps, on others, but some will not bloom well and all will be in distress in midsummer. One heroic treatment a year, followed by neglect, will not enable the rose to do its best.

It seems to be generally known that removing the fading blooms will conserve the strength of the plant and encourage it to put forth more bloom. Acting upon this belief, some growers go among the bushes, taking off the old bloom as though they were picking cotton. Others take small scissors and clip off the bloom with as little stem as possible, as though every particle of wood was precious to the bush. Others do a little better and cut off the old bloom just above the first leaf on the stem below it. All these treatments are better than neglect. They all obviate the distressful appearance of a bush full of dried bloom, and all free the plant from the exhausting effort at seed formation. It is possible, however, to pick roses and to cut off old bloom in a way which will maintain good condition in the bush, lengthen its flowering period and reduce the extent of heroic pruning at any time. It consists simply in cutting with a long stem, the length dependent upon the habit of the variety, down to a good leaf bud, from which a strong new shoot will start. This applies both to gathering good flowers and to clearing the bush from dried bloom. When the buds are opening one at a time on a spray, they may have to be cut with short stems, but when the last bloom of the spray has come to its best, it should be severed clear down to a good bud below the branching flower stem. If this practice is observed, the bush will be freed from the mass of brush and the hosts of weakly shoots which can yield no satisfactory bloom. New shoots will be strong and the whole foliage of the bush large and vigorous.

A bush thus treated during its winter and spring flowering period comes to midsummer in far better condition than one which has been allowed to take its own course after its winter pruning. If, then, when the spring flowering is over, the bush be looked over for weakly shoots, or for overcrowded growth, and these removed, it will be trim and vigorous and ready to take on a good growth for fall blooming. With its roots well protected by a mulch, or by deeply pulverized surface soil and its top thinned to admit sunshine and air, it becomes far less subject to parasitic insect or fungus. Such a rosebush shows its master's care and repays it as only a lovely, fragrant rose can do it.

The Green Fruit Market.

For green fruit the market has held very strong with an established advance in apricots and peaches and a stronger tone in pears and plums suitable for canning. This has been done in the face of an attempt on the part of large buyers to get concessions from commission merchants on the plea that the same kind and quality of fruit sold for less money at auction. The writer was a witness to two such attempts on the part of a canner, but failing to get the desired reduction the latter paid the full asking price. The strength to the market is due to supplies being well in hand and heavy shipments eastward, where prices realized have been fairly remunerative. By reference to the reported sales by auction at the East it will be seen that on August 1st, 33 carloads of California fruit were sold, 18 of which were placed in Chicago. These are the largest sales ever before made in one day, and which go far to disprove the often repeated fallacy that the fruit industry in this State is being overdone. In the light of the past we think the future holds out for many years to come the promise for good returns on fruit. We have in the United States a population of about 70,000,000, and if they will consume even one pound of California fruit per capita per month, it will be seen how much can be provided for, as it will equal 840,000,000 pounds or 20,000 carloads a season. At two pounds per capita a month the consumption will exceed our production for a long time to come. Of course as the production enlarges lower prices will unquestionably rule, but then this will be largely met by cheaper freight rates and improved facilities for marketing the surplus. The railroads are fast solving the problem of cheaper freights and better cars in which to haul the fruit so there will be less loss in transit, for each year witnesses an improvement in these lines.

The Orange Industry.

The orange season for 1891–92 has ended. From the southern part of the State the shipments aggregated in round numbers 2800 carloads, against 4600 carloads during the season of 1890–91. From other parts of the State we have no data of the shipments, but they were in excess of the quantity shipped the preceding season. The quality of the fruit grown in Yuba and Butte counties was excellent, and, as usual, came in earlier than did oranges grown elsewhere. The oranges marketed from the southern part of the State were, with the exception of those sent from Redlands and Highland in San Bernardino county and two or more other favored localities, more or less frosted and consequently were very poor and unmarketable, as far as quality was concerned. The marketing of the trashy stuff had a demoralizing effect and caused even the more choice to feel its unfavorable influence. Had all the frosted oranges been destroyed, it would have been far better for the industry, not to say anything of much better prices for the merchantable fruit.

If the season of 1891–92 had been favorable to the growing crop in the southern part of the State, there is not the least doubt but the shipments would have been all of 5600 carloads, and that they would have been marketed at fairly remunerative prices. This opinion is grounded upon the favor with which the fruit had been previously received in the East. The growing crop promises to be above an average in yield, and, if not injured by frost, of good size and of superior quality.

Of the 2800 carloads of oranges shipped from the southern part of the State, Riverside contributed, or at least that place is credited with, 1406, equal to 402,030 boxes. This was only 40 boxes short of the quantity shipped during the season of 1890–91; which goes far to substantiate the statement that if the season had been favorable to the growing crop, the quantity for shipment would have been all of what we claim—5600 carloads. There was a large increase of trees which came into bearing, that largely offset the lessened quantity of fruit to the tree which was marketed.

At this writing it looks very much as if the 1892–93 crop of oranges will come in on a fairly hungry market, and if so, good prices will rule. This opinion is largely grounded on the fact that when deciduous fruit (green, dried and preserved) has ruled too high for general consumption, that citrus fruit finds better favor with the mass during the winter and early spring months, and, therefore, any increase in the crop will undoubtedly be cared for before the end of June 1893. This assertion is made with the full knowledge that the orange crop of Florida will, the coming season, be all of 4,000,000 boxes against 3,500,000 boxes in the season of 1891–92. That part of the very large crop of Florida oranges (there were 1,050,000 boxes more than in the season of 1890–91) the past season which was sent up north, was marketed at an average of $1.88 per box gross, or $1.11 per box, net to the grower at the shipping point in that State. Commenting on this price, Pres. Fairbank of the Florida Fruit Exchange, said in his annual address: "A very abundant fruit crop at the North, and consequently very low prices of apples, grapes, etc., reacted upon our orange crop, and prices ruled very much lower than the preceding year." This year the crop of apples and all other deciduous fruit in the northern, middle and central States was the lightest on record, and, therefore, there will be no cause for complaint about large supplies of apples, grapes, etc.

From an Independent Standpoint.

In regions east of the Sierra Nevada mountains the population has been employed industriously during the past week in fanning itself. From Nevada to the Atlantic seaboard the weather has been intensely hot—so hot as to eclipse all previous records. The greatest distress was of course in the large cities and in the manufacturing establishments where fires are maintained. In New York city the lowest point reached at any hour of the day or night from Tuesday till Sunday was 75 degrees, while at the same time the humidity ranged from 64 to 78. In the central and southern parts of California we are acquainted with degrees of heat that put the New York record "in the shade," but here it is dry, while there it is damp almost to saturation. The distress may be judged by the results as shown in the death record for the week as follows: Sunday, 179; Monday, 190; Tuesday, 187; Wednesday, 171; Thursday, 198; Friday, 213; Saturday, 286. Of the whole number 573 were infants and 775 were under five years of age. In the Williamsburg sugar refinery at Brooklyn over six hundred men were prostrated by heat and seventeen died in the works during the afternoon of Friday. Many affecting episodes were witnessed on Friday evening when the wives of the men were taking their suppers to them and were met with the news that their husbands had already been sent home, overcome by the heat; or, as in three instances, were met by a cortege of men carrying their husbands out of the sugar-houses. In the streets and houses of the city the people literally sweltered, while horses and dogs fell dead by scores. From Philadelphia, Baltimore, Chicago and elsewhere come similar reports, all bearing testimony to the most severe week in twenty years. On Saturday night a "cool wave" spread over the parched land and for the first time in a week the people went comfortably to sleep. Blessed indeed are we who dwell on the Pacific shore!

The striking workmen at Homestead, Pa., show no signs of weakening. The mills are operated in a partial way by non-union men who are lodged, fed and even preached-to within the enclosure. The troops are still on guard; and the business of arresting persons guilty of specific instances of violence on the day of the great fight goes on. While at the center of disturbance matters have thus settled into routine, the country at large is profoundly agitated over the questions which this affair has raised up. The controversy between Mr. Carnegie and his workmen is lost sight of in the larger controversy which it has provoked. The assertion by the Homestead men of a property right in the mills in which they labor, and the support of that assertion in the Senate of the nation has raised a new issue in American affairs. To the RURAL it appears to be a plain issue between law and lawlessness. If the claim of the strikers to a right in the management and profits of the Homestead works be admitted, what becomes of the rights of the owners of the mills? If this claim be conceded, then the farm hands and fruit pickers in California have rights in the farms upon which they labor—then what becomes of the rights of the land owner? If the strikers be allowed to dictate terms upon which other men may or may not work in the Homestead mills, what becomes of the rights of those other men to individual liberty of choice and action? If trades-unions are to be allowed to make the laws which must be obeyed by labor and capital, what becomes of the authority of Congress? The plain truth is that the Homestead men are wrong. Every so-called principle they are contending for is a false principle, for it cannot be allowed without violation of the rights of others. To allow their claims would be to elevate the dictum of the trades-union above the enactments of Congress and to destroy our whole theory of personal liberty. Our forefathers exchanged government by an aristocracy for government by the people. If we should surrender this heritage, if we should exchange government by the people for government by the mob, it would be the most shameful dereliction of human history. But we will not do it. The laws which protect the rights of all will be enforced. The Homestead men will be given a stern lesson in the American doctrine of liberty for all and protection for all, and this lesson will not be more for them than for the whole country.

The pity of the whole affair is that it widens the breach between capital and labor or to speak more exactly, between the capitalist and the laborer. The true relation between capital and labor is that of co-operation. In the present organization of human society neither can walk alone. For one department of industry to quarrel with another is as if one's right hand and left hand should fall to contending with and rending each other. Even when the present trouble is ended, there will be at Homestead on one side the haughtiness of victory, and on the other the humiliation of defeat. There will be, not the helpful spirit of accord, but the evil spirit of deep hatred. Co-operation under such terms cannot be genuine. And far away from Homestead, between mill and mine owners and mill and mine workers everywhere, the spirit of class will be promoted by this unhappy controversy. Where formerly there was cordiality and friendship, there will be suspicion and estrangement. The mine workers in Nevada who have publicly resolved approval of the false principles contended for at Homestead and Cœur d'Alene, have made enemies of their employers. And so, wholesome co-operation between employer and workmen is being destroyed, and, as a consequence, the moral rights of the workmen which no law can ever enforce, and which most always rest upon identity of purpose and mutual good, will lose there force. Here, indeed, is the pity of the thing. The workingman, be he ironmonger, ploughman or other, is not serving his own interest when he substitutes the letter of the contract with his employer for the spirit of friendliness—when he exchanges the warm blood of good will for the cold blood of business calculation.

Just as the New World is solving problems for the Old, the newer West is solving problems for the East. The broader minded among theologians, and philosophic men in general, have long observed that the training of the theological seminaries is arid, narrow and artificial, but they have not seen a way to improve it. While they have been speculating concerning the fact, the bolder men out in Colorado have been seeking the remedy. In the *Christian Union* we find a report of the foundation of the Colorado Divinity School, which starts off upon nonsectarian lines. The Rev. Dr. Kerr B. Tupper, a Baptist, is to be Dean of the Faculty; Bishop Spaulding, of the Episcopal Church, is to be Professor of Ecclesiastical History; the Rev. Myron W. Reed, a Congregationalist, is to teach the Ethics of Social Reform; the Rev. Samuel A. Eliot, a Unitarian, is to teach Comparative Religion; the Rev. W. S. Selleck, a Universalist, is to have charge of the History of Christian Doctrines; and the Rev. Albert A. Pfanstiehl, a Presbyterian, is to be Professor of Systematic Theology. The school is born of the great need in the Rocky Mountain region for such an institution. It is to be nonsectarian; it is to investigate religious truth seriously and impartially; it is to be broad and catholic in its spirit; it is to be hospitable to the intellectual methods of the day; it is to offer theological study without reference to denominational bearings; and it is to aim, not to fill men with information, but to teach them to think and act for themselves. Commenting on the new establishment, the *Christian Union* says: "This is a bold experiment, but it starts in a new country with a clear field, and it is in accordance with the spirit of the times. Its progress will be watched with great interest. The possibilities of such an institution in the way of emphasizing essential Christianity, destroying denominationalism, developing the spirit of Christian unity and relieving theological education from the too exclusively abstract character which has been its weakness, are almost without limit."

The presidential campaign is undeniably slow. Usually at this season the country is in a roar, but outside of the editorial columns of the political journals there is scarcely anything to call to mind that this is a campaign year. For this happy condition there are two main causes: First, there is well nigh universal confidence in the capability and honesty of both Harrison and Cleveland, and since one or the other is certain of election, it is felt that in any event the government is sure to be in good hands. Second, whoever undertakes to instruct the people must talk about the issues of the time and these issues happen to be "dangerous." There is not time in the period between July and November to correct mistakes, and so on both sides the managers are trying to avoid mistakes by keeping off from dangerous ground—in other words, by leaving the labor question and the issues newly raised in connection with it severely alone. At the same time it makes a "slow" campaign, for the attempt to discuss the tariff with a public whose attention is all for the labor question is like trying to interest a girl who has her eye on another man. Thus the cowardice of the parties leaves the real issues of the time alone, and since nobody will hearken to the old songs, politics gets small attention.

FARMERS' INSTITUTE MEETING.—The third quarterly session of the Southern California Farmers' Institute will be held in the Opera House in Chino, August 17th and 18th. Franklin Cogswell, of the Executive Committee, was here on Monday making arrangements for the meeting, which promises to be of great interest. The transaction of some necessary business and the reading and discussion of a number of interesting papers will occupy the first day, and the forenoon of the second day will be devoted to a drive over the beet fields, a visit to the factory in operation, and a lunch given the members from abroad by Mrs. Gird on the beautiful lawn at her home.—Chino Champion.

Another Effort for a Dried Fruit Exchange.

At the meeting of the State Horticultural Society, July 29th, E. W. Maslin submitted the report of a committee previously appointed to consider the feasibility of establishing a dried fruit exchange in San Francisco, to the effect that a meeting had been held with fruit growers and others interested to discuss the question on July 7th, and it was the sense of the meeting that the season had too far advanced to begin the enterprise this year, but the following resolution had been passed:

Resolved, That the scheme of establishing a dried-fruit exchange is feasible and necessary for the interests of the fruit growers of the State.

Resolved, That we advise the State Horticultural Society to appoint in each county having a dried-fruit interest a number of persons whose duty it shall be to canvass the county for the purpose of inciting an interest among the fruit growers in the project of establishing the said dried-fruit exchange, to establish an association of fruit growers in each county where there is no county fruit association, and to ask the cooperation of associations already formed, and to induce the sending of delegates to a convention to be held in San Jose on November 15th, then and there to organize a dried-fruit exchange.

The recommendations in the report were adopted by the Society, and the same committee, with the addition of the secretary, was authorized to select names in the different counties and submit them for adoption at the next meeting of the Society.

Auction Sales of Fruit.

The auction sales of Sacramento river fruit have continued with good amounts offered and prices favorable. P. Steinhagen, the auctioneer, addressed the State Horticultural Society, by invitation, on Friday last concerning this method of sale and was well received. The following are the summaries of Monday and Tuesday's auction sales:

2500 baskets Crawford Peaches, 30@55c ℔ basket; 300 baskets Orange Clings, 55@70c; 40 baskets Nectarines, 40c; 75 baskets Plums, 37½@40c; 35 baskets Crabapples, 45c; 60 baskets Prunes, 50@70c; 25 boxes Nutmeg Melons, $1@1.25 ℔ box.

1500 baskets Crawford Peaches, good to choice, 25@67½c, inferior, 25@40c ℔ basket; 150 baskets Orange Cling Peaches, 60@65c; 28 baskets Sawyer Seedling Peaches, $1.15; 150 baskets Plums, 30@47½c; 50 baskets Crabapples, 40c; 600 boxes Bartlett Pears sold Monday at 1 o'clock at 85c@$1 for No. 1 and 45@75c for No. 2.

SHORT CROP OF PRUNES AND CURRANTS ABROAD.—The strength of the dried fruit market reported in last week's RURAL PRESS is not only sustained, but a slight advance is reported in prunes, peaches and raisins, which is noted at some length in the commercial department. The market has strong support in short crops abroad independently of the short crop of deciduous fruit at the East. The latest cables received from France not only confirm previously received information of a short crop of Turkish, but also report a short crop of Bohemian prunes. The currant crop in Greece is also reported as being short. From the general tenor of advices it looks as if all kinds of California dried fruit will be marketed early and at good, remunerative prices.

A PURE FOOD EXHIBITION IN NEW YORK.—A circular upon another page shows that our olive growers propose to show their products at a Pure Food Exhibition to be held in New York next October. At the meeting of the State Horticultural Society on Friday last, the same subject was favorably considered, and an effort will be made to secure the display of California dried fruits. This is thought to be especially desirable because of the warfare which some eastern nurserymen have threatened to make upon our products in retaliation for the exclusion of eastern nursery stock. Messrs. Lelong, Coates and Joseph Shinn are a Committee to propose ways and means at the next meeting of the Society.

NATIVE FOOD PRODUCTS.—S. L. Watkins, of El Dorado county, who has been authorized by the State Commission to make a collection for Chicago of the native food products of northern California, writes from Grizzly flats that he will endeavor to secure the following: All the plants, grasses and flowers indigenous to the Sierra Nevada mountains, and the foliage and samples of wood of the different trees; the different varieties of wild fruit, including wild cherries, several varieties of wild plums, wild strawberries, wild grapes, thimble berries, blackberries, raspberries, gooseberries, currants and other wild fruits if possible. There will also be the different varieties of nuts and the burrs containing them.

RATES ON NORTHERN SHIPMENTS.—The present rate from San Jose to Spokane Falls, Wash., and points in Montana on deciduous fruit in carloads lots on freight trains will be $1.25 per hundred pounds. The rate on potatoes or vegetables in straight or mixed carloads will be 82 cents per hundred pounds. The rate for deciduous fruit, vegetables and potatoes in mixed carloads to the same points is $1.25. Freight cars attached to passengers trains containing deciduous fruit will be taxed $1.25 per hundred weight, as quicker time is made.

Weather and Crop Bulletin for Week Ending August 1st.

The following crop report for the week ending August 1st, as furnished by Director Barwick of the Weather Bureau, and California weather service, shows a rainfall that was appreciable to the pluvialites in Shasta county and the northern portion of Tehama county, at least so reports the observer at Red Bluff. The observers or crop correspondents not giving the highest and lowest temperatures (save one or two of them), it would be folly to quote them as being a representative temperature of the State, either by sections or districts. The temperature has been rather below the normal in all portions of the State except in the Fresno raisin district, where it was about normal. Hops are doing remarkably well, at least so reports Mr. Chris. Wagner, who is general hop reporter for California.

SHASTA.—*Anderson*—The past week the temperature has been about normal, heavy thunder and lightning on Wednesday, 27th, passing to the north; shower on the hills, 23rd; light rainfall, .03 of an inch. Wheat now turning out well in the valley; fruit is fine. One carload left this place on 30th for Chicago. Crawford peaches, Bartlett pears are a large crop. Highest temperature 100°, lowest 60°. Melons coming in plentifully.

HUMBOLDT.—*Eureka*—Heavy fogs along the coast have prevailed through the week. The sun has not shown up in the last six days. Wheat and oats are being harvested and the crops will be good in quality and quantity. Corn is not doing well from lack of warm sunshine. Fruit is ripening slowly.

Hydesville—Foggy and misty weather has damaged the hay a little and should it continue it is feared the grain will rust.

Upper Matole—Harvesting in progress; small grain rather below average on account of the cool, wet spring and the drying winds which followed; summer crops very backward, but growing; the stand of corn not good.

LAKE.—*Ma Tel Vineyard, Upper Lake*—Threshing has begun. So far, the yield is above the average in quality and quantity. Had it not been for the wild oats and rust the crop would have been the largest ever raised here. Grapes doing very well and no signs of mildew in sulphured vineyards. Fruit ripening slowly. Crop short, especially prunes. The latter attacked by a louse which yields to spraying.

YUBA.—*Marysville*—The damp mornings have retarded harvesting to some extent, but it is progressing favorably. Fruit is yielding somewhat better than anticipated.

PLACER.—*Newcastle*—The weather has been delightful for gathering the fruit crops. This month, generally, has been cool, but not so cool as to injure the fruit in the orchards.

NAPA.—*Napa*—Napa fruit growers shipped a carload of fruit to Butte, Montana, Saturday. The fruit was purchased here at the following guaranteed prices: Peaches, 75 to 85 cents per basket; apples, $1.00 to $1.25 per box; plums, $1.25 per box. The temperature for the past week has been below normal. Mornings foggy. Prunes selling for $45 per ton. Other fruit in proportion. Fruit crop below average. Grain above average. Grapes doing well. Temperature growing warmer.

SOLANO.—*Vacaville*—The even temperature the past week has greatly benefited fruit growers in the proper handling of their fruit. A continuation of this weather is just what is needed.

SONOMA.—*Healdsburg*—The last week has been good growing weather, foggy mornings and warm afternoons. Corn looking well and growing, besides ripening slowly, also prunes. Grapes will fall one-fourth to one-third short around here.

Santa Rosa—The past week has been unusually propitious for the ripening fruit. The cool weather has retarded the early ripening of peaches, pears and apricots, thereby giving them opportunity to more fully develop, which they have done with remarkable success. Canners say the fruit will be rather short in quantity as compared with last year's crop, but the quality will be very much superior. Hops are growing nicely and promise a good yield.

AMADOR.—*Oleta*—Unusual cold weather for July; fruit not developing as usual. Fire necessary most evenings and mornings.

STANISLAUS.—*Oakdale*—The weather for the past seven days has been too cool for farm operations, retarding the working of the harvesters until 9 or 10 A. M. each day, owing principally to the moisture in the atmosphere. The best weather for harvesting is when the thermometer ranges from 71 in the morning to 107° in the afternoon. The crops this year should have been very good, as the weather was most favorable throughout, but almost all farmers complain that they are coming out short.

TULARE.—*Visalia*—All crops turning out far better than expected. We have had the lowest temperature for 15 years.

ALAMEDA.—*Livermore*—Grain turning out well. Fruit crop fair. Grapes—some varieties—not filling out well; but, generally speaking, the crop will be fair. Prices for all produce average low.

Pleasanton—The cool weather, accompanied by brisk winds and fog, has retarded harvesting, and has also checked the growth of hops and sugar beets, and from the same cause "Couleur" has appeared in the vineyards, the best French varieties (particularly "Cabernets") suffering most, and are damaged fully 25 per cent.

SANTA CLARA.—*Gilroy*—Grain being rapidly harvested. Fruits yielding better than expected. Grapes are showing well in most places and will be of fine quality.

SANTA CRUZ.—*Watsonville*—As threshing continues, the outturn proves the truth of the estimate I made and reported two months ago. Wheat is yielding far below an average in the valley or bottom lands on account of lodging and rust, and also to the fact that Pajaro valley land has been sown to wheat and barley continuously since 1850 and 1852, and is too worn out for wheat or barley. Sugar beets, potatoes, corn, beans, are doing splendidly.

MONTEREY.—*San Ardo*—The past week was rather cool, with fog in the morning, sometimes lasting until 9 o'clock in the morning; but this day (Saturday) is again turning warm. Highest temperature 95°, lowest 45°. Grain threshing still going on; yield poor.

SAN LUIS OBISPO.—*San Luis Obispo*—We have another cool week, the highest temperature in the shade at noon being 80°. We have heavy northwest fogs and light southeast breezes and fogs, being beneficial to our large bean and potato crop, but a little warmer weather would help on corn crop. Some parties are drying apricots, but the crop is scattering and light in most places.

SANTA BARBARA.—*Santa Maria*—For past two weeks weather has been favorable for beans and summer crops. The new cannery has been in successful operation for the past two weeks, working on apricots. The fruit crops are lighter than at first anticipated—prunes are almost a failure. Grain has been better than anticipated. Weather below normal temperature every week of the month.

SACRAMENTO.—*Sacramento*—The temperature during the week, although warm, has been below the average or usual amount of heat that the earth receives at this time of the year. The normal precipitation is nothing, and there having been no rainfall during the week, the conditions have been normal. The weather conditions have been beneficial to the grape and fruit crop.

COLUSA.—*Williams*—All weather conditions continue favorable for the grape and fruit crop.

GLENN.—*Willows*—The wheat crop is above an average. Peaches are plentiful and pears appear to be good. The prune crop is very short. Highest and lowest temperature, 101° and 52°.

SAN JOAQUIN.—*Stockton*—As the harvest progresses, it becomes evident that the average quality of grain is slightly below the usual; at the same time, the yield seems rather above the average.

Lodi—The highest and lowest temperatures during the week were 91° and 50°. The prevailing winds were from a westerly quarter, and in connection with the cool, damp mornings, have somewhat delayed the wheat harvest. Watermelons are coming in more plentifully, and are of a better quality. The peach crop will be, or rather is, a short one, but the quality will be very good. Grapes are coming on slowly, and are every bit of two weeks later than usual, and the crop will be short.

TEHAMA.—*Red Bluff* (telegram)—The temperature has been below the normal, with light rain falling in Shasta county, amounting to about .03 of an inch at Anderson. Fruit is ripening very slowly.

FRESNO.—*Fresno* (telegram)—The weather has been cloudless and the temperature normal; the grain harvest and fruit shipments progressing. Storage of water in creeks on account of the cool weather not rapidly melting the snow in the mountains. Thousands of acres of pasturage have been destroyed by fire.

LOS ANGELES.—*Los Angeles*—The cloudy nights and clear days during the past week, accompanied by no extreme heat, have not been beneficial to growing or maturing products that are grown in this vicinity. What is needed is more warm weather to mature fruit. Peaches and nectarines coming in, and there will be a fair crop of deciduous fruits.

Special Hog Premiums at the State Fair.

SACRAMENTO, Aug. 2, 1892.

TO THE EDITOR:—We have just been notified of an offer by the Union Stock Yard Company, of San Francisco, of special premiums at the State Fair of 1892, for the encouragement of hog-raising in California. They have kindly offered the following inducement to exhibitors:

For the best litter of hogs for packing purposes	$25 00
For the second best	15 00
For the third best	10 00

It comes somewhat late, but we hope the producers will take advantage of this liberal offer, and make a showing of packing-house stock. A good exhibit would, no doubt, encourage the continuance of these premiums by the Union Company.

We desire to assist them in every way, as it will certainly revert to California's interest to produce what we have been annually importing for our own consumption. There is no reason why the hog-raising industry should not be made one of our principal resources, as it is certainly a paying investment, and when we shall have established the proper packing facilities, this industry will warrant considerable increase to furnish the company with the necessary packing material.

I hope you will call attention to these facts, that our hog raisers may be induced to make some progress in the industry. EDWIN F. SMITH, Sec'y.

Work of the Santa Clara Fruit Exchange.

SAN JOSE, Aug. 1, 1892.

TO THE EDITOR:—F. M. Righter has been appointed Assistant Manager of "Santa Clara County Fruit Exchange." He is expected to look after the interests of the stockholders of the Exchange residing near Campbell. Campbell Fruit Growers Union will sell all of their fruit through the Exchange. Bids will be received on this fruit up to Aug. 10th, at which time, judging from bids already made, at least the fruit now ready for market, and possibly a good portion of their prunes, will be sold.

For "extra Moorpark apricots" 16 cents has been offered. This "extra" lot was made of Moorpark apricots ranging from 1¾ to 2½ inches in diameter; $62.50 per ton has been offered for green prunes, and 10 cents freely offered for dried prunes, four sizes. Driers are holding for higher figures—11 cents and up. OCCASIONAL.

An interesting general sketch of the Santa Clara Fruit Exchange may be found on page 107 of this issue.

Points on Eucalyptus Species.

LOS ANGELES, July 30, 1892.

TO THE EDITOR:—Will some one of experience oblige several readers of the RURAL in this vicinity by telling them what variety of the gum tree is the best to plant, and how many cords of wood can be expected per acre from trees five years old; also, what is the best time of the year to cut the wood so as to secure a good growth from the stump? SUBSCRIBER.

We shall be glad to hear from our readers on these points. They are very important.

Oxford Down Sheep.

W. A. Shafor writes us that he will leave England July 16th, per S. S. Canopus, from Liverpool to Quebec, and bring 300 Oxford Down sheep. Among them is the champion ram at the Royal show this year and a lot of other winners at the Royal and other shows in England. He expects to go into quarantine at Quebec 15 days, and to reach Middletown, Ohio, by the middle of August, and will then have a full line of Oxford Down sheep for sale. Mr. Shafor is the largest American importer of Oxford Down sheep, and he will be pleased to hear from intending purchasers on his arrival at his home place at Middletown, Ohio.

A Los Angeles newspaper states that Ventura county is more advanced in World's Fair work than any of the other six southern counties, with the exception of San Diego county.

"Big Jaw" or "Lumpy Jaw."

The interest which has been shown by the stockmen of the United States in regard to the disease known as "lumpy jaw," or that form of actinomycosis which appears as external swellings on the head, renders it desirable that a preliminary statement should be made concerning the treatment of this disease. Until recently it has been the opinion of the veterinary profession that a cure could only be obtained by a surgical operation, and that this should be performed in the early stages of the disease in order to insure success.

In March last an important contribution to our knowledge of this subject was made by M. Nocard, of the Alfort Veterinary School, in a communication to the French Central Society of Veterinary Medicine. He showed clearly that the actinomycosis of the tongue, a disease which appears to be quite common in Germany and is there known as "wooden-tongue," could be quickly and permanently cured by the administration of iodide of potassium. M. Nocard calls attention to the success of M. Thomassen, of Utrecht, who recommended this treatment as long ago as 1885, and who has since treated more than eighty cases, all of which have been cured. A French veterinarian, M. Godbille, has treated a number of cases with the same remedy, all of which have been cured. M. Nocard also gives details of a case which was cured by himself.

All of the cases referred to were of actinomycosis of the tongue, and no one appears to have attempted the cure of actinomycosis of the jaw until this was undertaken by Dr. Norgaard, veterinary inspector of the Bureau of Animal Industry. He selected a young steer in April last, in fair condition, which had a tumor on the jaw, measuring 15½ inches in circumference, and from which a discharge had already been established. This animal was treated with iodide of potassium, and the result was a complete cure, as stated in the reports which were recently given to the press at the time the animal was slaughtered in Chicago. If lumpy jaw can be cured so easily and cheaply, as this experiment would lead one to suppose, the treatment will prove of great value to the cattle raisers of the country. As is well known, there is a considerable number of steers weekly coming to our markets which are condemned because they are diseased to such an extent that the general condition of the animal is affected. If these could be cheaply and readily cured by the owners, it would prevent the loss of the carcass, and solve all the troublesome questions which have been raised in regard to the condemnation of such animals.

The curability of the disease does not affect the principles which have been adopted in inspecting and condemning animals affected with it. This Department has never considered it necessary to condemn animals affected with actinomycosis on account of the contagiousness or the incurability of the disease. Such condemnations have been made when the disease was so far advanced as to affect the general condition of the animal, and all such carcasses would be condemned whether the disease from which the animal suffered was contagious or not, or whether it was curable or incurable.

The treatment with iodide of potassium consists in giving full doses of this medicine once or twice a day until improvement is noticed, when the dose may be reduced or given less frequently. The size of the dose should depend somewhat upon the weight of the animal. M. Thomassen gives one and one-half drams of iodide of potassium daily in one dose dissolved in a pint of water until improvement is noticed, which he states is always within eight days. Then he decreases the dose to one dram. The animals do well under this treatment, showing only the ordinary symptoms which follow the use of iodine, the principal ones being discharge from the nose, weeping of the eyes, and peeling off of the outer layer of the skin. These symptoms need cause no uneasiness, as they never result in any serious disturbance of the health.

M. Godbille has given as much as four drams (half an ounce) in one day to a steer, decreasing the dose half a dram each day until the dose was one and one-fourth drams, which was maintained until the twelfth day of treatment, when the steer appeared entirely cured.

M. Nocard gave the first day one and one-half drams in one dose to a cow; the second and succeeding days a dose of one dram in the morning and evening, in each case before feeding. This treatment was continued for ten days, when the animal was cured.

Dr. Norgaard gave two and one-half drams dissolved in water once a day for three days. He then omitted the medicine for a day or two, and continued it according to symptoms. These examples of the treatment as it has been successfully administered by others will serve as a sufficient indication for those who wish to test it.

Experiments are now being conducted on a large scale by the Bureau of Animal Industry in the treatment of lumpy jaw with this remedy, and the results will be published as soon as possible. In the meantime, it would be well for all who have animals affected with the disease to treat them according to this method, and report results to the Department of Agriculture, Washington, D. C.

Barley Grinding.

At Clements, San Joaquin county, a grist mill is running full blast, and in calling on the proprietor, he informed me that the charges for grinding the farmers' barley was $1.25 per ton, but the farmer furnished the sacks and twine for sewing. If 20 sacks of barley is brought to the mill, 27 sacks of crushed will be the result. This increased bulk is desirable because the feed is more easily digested by the animals.

Much is also being done with portable barley mills, the owner and crew going from ranch to ranch, carrying their own boarding and camp outfit. Their usual rate is $1.50 per ton, I am informed. W. H. M.

Horestry.

"Approved English Names for Western Trees."

Prof. Sargent's Criticisms Considered.

Oakland, July 30, 1892.

To the Editor:—Having kindly opened your columns from the first to the discussion upon the establishment of certain English names as being suitable for our western trees, I desire further to employ your valuable journal to report from time to time the progress of the new departure.

Returning recently from an extended reexploration of the forested mountains of Southern Arizona, we find awaiting us much interesting data concerning the proposed English names. I may say in general, that the reform movement seems to meet with almost unanimous support, which was not to be expected in certain quarters, where radical changes were proposed, and such approval is therefore all the more gratifying.

Where criticism or differences of opinion are given, it is generally offered in a considerate, kindly spirit, which is exceedingly helpful, and for which I am truly grateful.

The State Superintendents of Oregon and Washington write approvingly, and recommend that the Handbook (lately introducing these names) be placed in their school libraries, while most of the county superintendents of California receive the English names with favor, and several Eastern journals give extended notices of the Handbook, and encourage the preparation of the larger work to follow.

The most important indorsement of my efforts to establish suitable English names comes from Prof. Sargent, editor of *Garden and Forest*, for May 11, 1892. He gives a two-column editorial notice of the Handbook, quoting several paragraphs and giving nearly the full list of English names proposed for our Cone-bearing trees, "in the hope," he concludes, "of aiding the author to bring about a most desirable reform."

He also takes exception to a few of the proposed names, giving reasons therefor; and it is to these helpful criticisms that I wish particularly to refer at this time, for in most instances the exceptions are not well grounded, as I will endeavor to show.

"Alpine White-bark Pine" of the Handbook, designating in English our *Pinus albicaulis*, which we find with its white bark and its white annual branchlets fringing the upper limits of our alpine forests, he considers sufficiently designated by the shorter name of White-bark Pine; but all the trees of this order in high, wind-swept situations are apt to have more or less silvery white bark, whatever their color in less elevated localities. "White-stem Pine," alluding to the stout annual stems, would be a better name, and, moreover, it is a literal translation of the botanical one. This correction will appear in the next edition.

"Nevada Nut Pine" for *Pinus monophylla* he thinks not well chosen, because the species is not confined to the State of Nevada. To be sure, it extends to contiguous territory, but its headquarters of best development are in Nevada; and the same remark is true of the "New Mexican Piñon," which extends sparingly to adjoining regions, but is abundant in New Mexico. "Stone-seed Mexican Piñon" Prof. Sargent thinks "a rather unnecessarily long and awkward name." Awkward it certainly is, but exactly descriptive, and a similar name is necessary to distinguish this hard-seeded species from the two other soft-shelled piñones partly included in Arizona, though the "Stone-seed" is the principal one, and largely cultivated for food in Mexico, where it abounds.

"North Coast Scrub Pine" for *Pinus contorta* he thinks might be changed to Contorted Pine. As neither the tree nor any of its parts are contorted (despite the fancy of Douglas, who named it), and considering that the tree is the smallest of our species and confined exclusively to the North Coast region, the preceding name was naturally suggested.

"Arizona Five-leaved Lumber Pine" is criticised as "an unfortunate designation, as the leaves are not always in 5's and the species does not produce especially valuable lumber." To this I have to say that the leaves—like those of other species—are usually constant in their number; and as to the other objection, this pine is one of those growing in the reach of the white man, and has been mostly cut away in certain localities and manufactured into lumber which is similar to the yellow pine of California, belonging to the same group—the "Broken-cone Lumber Pines."

"Canada Horn-cone Pine," for the curious little Canadian Pine, with its horn-like cones pointing forward along the branchlets, my critic thinks "not preferable or easier to remember than Gray Pine, by which this species is universally known in Canada." But the horn-like cones of this species are unique in the great family of Cone bearers; the tree is not particularly gray in color, only "dull grayish green," according to Gordon, while we have agreed to call our gray, cloud-like *Pinus Sabiniana*, the "Gray-leaved Pine," which would conflict.

The approved names for our firs fare better, owing to the fact that "their identity and synonymy are more confused than the trees of any other group of conifers;" but "Feather-cone Red Fir" the editor thinks "inappropriate." Pray wherein? Its Latin name *Abies nobilis*, meaning Noble Fir, and so called by some authors, is certainly inappropriate because the tree is less majestic than two other species, while the cones are clothed with recurved, beautifully fringed, brown bracts, resembling the feathers of a bird—hence Feather-cone.

Concerning our redwoods, Prof. Sargent writes: "It hardly seems necessary to designate *Sequoia sempervirens* as the 'Coast Redwood,' as it is the only California conifer that is called Redwood; or to call *Sequoia gigantea* 'Giant Sequoia.' To our taste," he continues, "Big Tree is a simpler and better name." It happens that both Sequoias are decided Redwoods and both called Big Trees, hence some distinction is necessary. I thought to call one the Coast and the other the Sierra Redwood, but "Giant Sequoia" is already in use and quite distinctive for the larger species.

"Alaska Ground Cypress" is objected to because "the tree sometimes attains a height of 100 feet, and it is by no means confined to Alaska." To this I have to remark that, compared with the other genera of cypresses, the trees of the genus *Chamæcyparis* are found with low, spreading branches, as the Latin name signifies, while Alaska is the principal home of this species.

"Arizona Red-bark Cypress" falls under criticism, "as it is the only species known to grow in that Territory, and so, simply Arizona Cypress would do as well." Late explorations in the Chirricahua mountains of Southern Arizona reveal, as we expected, that there may be two or three species of stringy-barked cypress, until the present unknown, in that Territory.

"Nor do we like 'North Coast Cypress' for *C. Goveniana*," writes our friendly critic, "as the species is found as far south as Monterey bay; or 'California Mountain Cypress' for *C. Macnabiana*, a rare and local species which grows on the foothills rather than on the mountains." I'm glad that the first-named cypress is admitted to be limited to the comparatively northern coast named, while the Mountain Cypress seems to have its headquarters, according to Mr. Carl Purdy, "on the top of Red mountain near Clear Lake;" also, according to Mr. Jeffrey, it was found by him "on the flanks of Mt. Shasta, at an elevation of 5000 feet."

I am glad to concede one exception as well taken: "Pacific Yew" of the Handbook is no better than Western Yew would have been; and, especially so, as Nuttall once called it *Taxus occidentalis*. This correction will be printed in future editions.

Lastly, Prof. Sargent alludes to my following the lead of Prof. Greene in taking up the name of *Tumion* of Rafinesque (not *Tuminon*, as twice printed in the *Garden and Forest* article) in the place of *Torreya* of Arnott, and states that "the species in Florida is known by the vernacular name of *Torreya*."

Is it, indeed? Prof. Sargent's own census report of N. A. Forest Trees gives it as Stinking Cedar—one of the kind of names I am trying to get the public to discard.

A better name given the tree by other citizens is Nutmeg Tree. Only botanists would call it by the Latin name of *Torreya*, a name commemorating one of the first botanists of America—Dr. John Torrey; but, hallowed as is the name, when botanists learn that it is not available for this genus of Cone bearers, because it was previously applied to another genus, they must of course, however sorrowfully, take up the proper name, as I have done.

The editor of *Garden and Forest*, to whom I am indeed greatly indebted for his assistance in thus reestablishing on firmer grounds my proposed English names, concludes: "Such criticisms as those which we have ventured upon show the difficulty of fixing on any plant a vernacular name which will be acceptable to every one, and will serve to emphasize the fact that the best name for any plant is the Latin one which is given in accordance with a fixed and recognized principle and which cannot be changed except in accordance with that principle."

If the editor of *Garden and Forest* and other tree lovers will give the "Approved English Names" thoughtful attention, they will not find that I have entered upon this important innovation—which it must perforce appear to be in a few instances—without many years' examination of western forests and much careful comparison and balancing of appellations.

In this connection it should be mentioned that important discoveries have been made lately, concerning the conifers in the Territories of Arizona and New Mexico, but their discussion must be deferred to future articles, perhaps until the close of the exploring season, when time shall have been given for the examination of data and comparison of specimens. At present we can only pause to notice the evidences of approval nearly everywhere extended to the attempt to introduce appropriate vernacular names to the public, in the hope that they will be taken up by tree lovers and gradually established, thus realizing the prophetic phrase of Sir Joseph D. Hooker: "Good English names for your noble western trees." J. G. Lemmon.

The Height of Douglass Firs.

Hon. Wm. Alvord of San Francisco, President of the American Forestry Association, was naturally put out a little by current newspaper statements that there are Douglass firs in Washington that are over 600 feet in height. Of course he did not believe it, and as will be seen by the appended letter, one to whom he appealed for testimony, and who is an authority, says the statement is a great exaggeration. We are under obligation to Mr. Alvord for the privilege of printing the following:

San Francisco, July 19, 1892.

William Alvord Esq., S. F.—Dear Sir: Referring to your inquiry as to sizes of trees in the Northwest, which we referred to Mr. Cyrus Walker, our manager at Puget sound, we would say that we are in receipt of a letter from that gentleman, under date of the 15th inst., reading as follows:

"Yours of the 12th was this morning received, referring to a letter from William Alvord, President of the Bank of California, regarding the measurement of the Big Trees of the State, mentioned in an article in the *Chronicle* of July 10th.

"I consider the statement that trees have been found anywhere in the Sound country 650 feet high is a great exaggeration.

"From the information I have received in this matter, it is possible some of the largest fir trees may be 7 feet in diameter on the stump and 300 feet high, but I have never seen one.

"The statement in regard to the size of cedar and spruce trees is also greatly overdrawn. Out of 85,838 logs we received last year, there were only 50 logs from 60 to 67 inches in diameter, and most of them were about 60 inches.

"I have never heard of more than 214 feet of saw logs being cut from any one tree; this tree measured 300 feet long."

Pope & Talbot.

The Stock Yard.

Suggestive Notes on the English Royal Show.

Written for the Rural Press.

In the *Breeders' Gazette* of July 6, 1892, is a very interesting letter by the editor (who is now on a visit to Great Britain) on what he calls "Britain's greatest summer show." He praises the managers and management of the show throughout in the highest terms. The first thing that attracts his attention is that no vehicles are allowed inside the gate. All visitors alight and enter the grassy park on foot. Not even a mounted marshal rides up and down the yard to the possible discomfiture of pedestrians.

He commends the practice as being worthy of a trial by some of our American fair management, saying that it contributes amazingly to the comfort of visitors, enabling the people to circulate much more freely and with greater safety to life and limb, besides which there is a remarkable freedom from dust or mud, worked up by hoofs and wheels.

A CATALOGUE OF EXHIBITS.

We have before now urged upon the managers of our fairs the importance of having a catalogue of all things on exhibition, as is the case at all British live stock shows of any importance. Here is what Mr. Sanders says on the subject:

"The next thing to command our admiration is the complete catalogue of every article or animal on exhibition obtainable on the morning of the day the judging begins and ends. None can so thoroughly appreciate the value of this perfectly-arranged volume as a newspaper reporter. In America we enter a fair ground with a blank book and pencil and, by an amount of work, worry and traveling undreamed of by the average reader of our reports, manage to dig out the necessary mass of data relating to breeds, owners, ages, pedigrees, classification, winners, etc. Here it is all before you in plain black and white, and the thoughtfulness of the management extends, in the case of press representatives, to complimentary copies interleaved with blank pages for memorandum notes. Visitors at large pay for this invaluable document one shilling—say 25 cents. To any really interested visitor, it is worth ten times that amount."

In order to have a catalogue of everything on exhibition, it is necessary to have all entries made by a given date, previous to the opening of the show. Why can we not have it so here as well as there, is a question that has often been asked, but still remains without any satisfactory answer. In fact, there is no reason why exhibitors should not make their entries at least one or two weeks before the fair. Such a course would be much easier and more pleasant for all parties, also a great saving of time and trouble for both exhibitors and officials, who would be spared much or all of the hurrying and annoyance consequent upon having all entries to make during the first days of the exhibition.

JUDGING.

By having the entries made and the judges selected before the show, the judging could be done during the first day or two, or at latest the second and third days after the opening, according to the size and character of the exhibition. One day would be sufficient for the judging of all live stock if everything was properly prearranged. On the further management and arrangements in the cattle classes, Mr. Sanders continues:

"As is generally understood, the judging here is all concluded on the opening day, the sum of five shillings being charged for admission that day. Immediately afterward a prize sheet giving all the awards is issued, the prize winners are all conspicuously placarded, a low fee is put upon the gate, and weather permitting, the crowds then come to the show in numbers emphasizing sharply the interest felt by all Englishmen in agricultural affairs. As the animals are all arranged in their stalls by classes (or rings), according to age and breed, the visitor can study out the various problems presented at leisure and with infinite satisfaction as compared with what can be done in an American show-yard after the ribbons are tied. If one, for instance, wishes to compare the relative merits of the aged bulls of any given breed, they may all be found all week standing side by side just as they were seen in the ring. The value of such an arrangement is self-evident."

The overpowering show of the cattle classes is made by that most widespread of all British breeds, the Shorthorn (136 entries), and three out of every five are *roans*. Furthermore, nine out of every ten of the best ones are roans; yet, strange to relate, both the male and female championships fall to reds, but in neither case was such honor fully deserved.

THE COLOR QUESTION.

In regard to the color of the champion bull the English *Agricultural Gazette* says: "He is a red and white bull, mostly red, but with those white points, such as "stockings," which in former years were much abhorred, but have distinguished so many of the best winning Shorthorns of recent years that they are now excused, if not liked, while judges have wisely refused to allow their partialities toward roan or whole-red to rule their decisions when real superiority has come before them in association with unfashionable markings or with pure white."

As to the color of the champion cow, Truth, she is entered in the herd book as "r. & w.," which means red and white. Besides, this is not the first time she has been awarded the highest honors at the "Royal."

SATISFACTORY AWARDS.

Beginning with the large class of 20 aged bulls, the judges, Messrs. Chas. Tindall (formerly with Lorn) and Geo. Ashburner of Low Hall, it appears were not of one mind as to which bull should have the first prize, and eventually called in Mr. Chas. Howard as arbitrator, who sent the winning card to Mr. Williams' Major, also the champion bull of the show, bred by the Queen, the second and third prize bulls both being of Mr. Cruikshank's breeding. After some remarks on the comparative merits of several of the animals in this class, Mr Sanders concludes: That the judges hit upon the three best bulls of the class was universally conceded, and as they were judged by an English bench and in competition with big, scaly English

bulls, this is a tribute to the north-country blood which was as fairly won as it was thoroughly deserved.

Two large classes of two-year-old and yearling bulls are well spoken of, as are also the cows in milk or in calf, the winner in this class being the champion female of the show.

Heifers in milk or in calf, calved in 1889, were a small class of six, but in Mr. Sanders' opinion, the class of heifers calved in 1890 formed the great feature of the entire beef cattle section. He says:

The writer has attended practically all the great Western American fairs for a dozen years past, but has never yet seen a ring of cattle of similar age that could be compared with this magnificent line of heifers—24 in number. Here was a bunch of roan cattle that ought to be bought np by some enterprising syndicate (if such a thing were possible) and traveled about (like the White Heifer of ye olden time) through all our Western States as a revelation of what can be accomplished by breeding for good results regardless of color or particular lines of blood. Such a bevy of thick, blooming, sappy young cattle as was sent into this competition by the Queen, Mr. Brierly, Mr. Thompson, Mr. Eckroyd, Deane Willis, the Duke of Northumberland, Lord Polwarth, and Messrs Lynn, Hosken, Clayton, Chalk, et al., would make a sensation at the Columbian Exposition or any other great gathering of the clans anywhere on earth. It was, in brief, a display well worth going across the Atlantic to see.

CATTLE WITH GOOD COATS.

After some lengthy remarks on the individual merits of several of the animals, he draws a comparison between the English and American customs of showing, in regard to the hair, the latter smoothing down a short coat, and the former showing up, as much as possible, all the hair that can be got to grow, and rightly so, for of what good is a beast to stand the ordinary exposure to which stock cattle must needs be subjected, without a good coat of hair, which ought naturally to grow upon it for protection against weather at the time it is most wanted. Mr. Sanders writes:

As a lot, this was the best string of two-year-old heifers I have ever seen, and reflected infinite credit upon the Shorthorn breeders of Great Britain, the ever varying lines of blood observable in the pedigrees demonstrating once again the folly of any one school of breeders claiming a monopoly of merit for their particular favorites. In speaking of this royal group of heifers, it may be noted, for the benefit of such American herdsmen as are disposed to insist upon showing cattle with the hair smoothly laid by dint of careful grooming, that these charming roans all had their furry coats just as skillfully dressed, but with an eye single to the enhancing of their appearance of sappiness. "Cow licks" and "frizzly" effects of various sorts were everywhere observable, and especially if there was a slack point to be built out. Some of these bovine hair dressers have quite as much cunning as the most artful shepherd—and any one who has gone through the sheep pens at an English Royal will be ready to acknowledge that in the production of optical de'usions in the matter of curing carcass faults, the British shepherd is *sui generis*.

OTHER BREEDS.

Whether the editor of the *Gazette* has a weakness for Shorthorn cattle or not, we do not know; he, however, devotes more space to that breed than to all the rest. About 50 head of Herefords were exhibited. After reviewing the several classes on the comparative merits of the leading animals, there is a word of encouragement added for American breeders, which is: "That English breeders are ahead of our own in the matter of Herefords is certainly "not proven" by the Warwick show; and this is no disparagement to the old-country herds, either." Of the other herds he says:

Devons, Sussex, Red Polls, Black Welsh and Jerseys all make good exhibits. In fact, I have rarely seen such specimens of the three breeds first named as have been shown here this week. The Welch cattle are beyond my expectations. Some grand good carcasses of beef are to be found among them. Jerseys are a big show of 175 head, but I do not believe as a lot they are equal to those to be found at our leading shows, although some superb udders and rich skins are observable. Guernseys are well shown (45 head) and some extra cows are to be seen among them. A few Longhorns are in view, but are of interest only as a mere matter of curiosity. They seem valuable firstly for soup-making purposes and secondly as material for glue and fertilizer works.

In regard to the dairy cattle at this show, the *Agricultural Gazette* has the following summary:

There were only 15 entries in the three classes for cows giving the greatest quantity of milk containing, on the average of two milkings, not less than 12 per cent solids and 3 per cent butter-fat. In the first class for cows which had calved not less than three months before the date of the show, Mr. Salisbury Baxendale was first and second with Shorthorns, Mr. Church being third. The other two classes had no restriction as to date of calving. The first was for cows of 1100 pounds or over live weight, and here Mr. Pratt was first with a Shorthorn, and Mr. Baxendale was second with a Shorthorn. The first prize in the class for cows under 1100 pounds live weight was won by Mr. Adeane's Kerry, Mr. Church being second with a Red Poll.

The half a dozen different breeds of sheep on exhibition were represented by about 600 head, of which 250 were of the Shropshire breed.

AMERICAN PURCHASERS.

In spite of the restrictions laid by the U. S. Government on further importations, there were buyers present, from both the States and Canada, looking out for bargains in the line of show and breeding sheep, and made many purchases.

CONCLUDING COMPLIMENTS.

After concluding his remarks upon the sheep classes, he adds a further tribute of respect to the British sheep breeder, and also to the management of the show, in the following words:

The display in this section is too big for me to cover properly, and I will therefore close, for the present, by saying that the money-making power of the sheep seems to be much more thoroughly appreciated throughout Britain than in America. The different breeds are brought to an astonishing perfection, and it is evident that this class of stock not only contributes largely to the agricultural wealth of these islands, but their breeding is pursued with a skill and intelligence not surpassed in any other known line of breeding. The Warwick Royal will long be famous for its glorious show of sheep, and my only regret is that I had so little time to spend in that portion of the yard. In passing, let me note another point tending to show the thorough management observable at this exhibition. Every morning, at a stated hour, a certain contracted quantity of freshly cut tares (a forage plant of the pea family) was delivered at the sheep pens for the use of exhibitors. This is called the best of all feeds for show sheep on exhibition, and the condition in which it was delivered indicated that whoever had charge of that particular piece of work understood his business. The society seems to be exceedingly watchful in attending to all these little details, and it is unnecessary to add that this goes a long way toward insuring satisfaction to all exhibitors.

I can only characterize the Royal, as a whole, as the most perfectly managed show I have ever attended. It is a well-oiled machine, moving forward with one-half the friction and confusion attending the average American fair. That we can learn something from our English cousins in show-yard management must be conceded without reservation.

POULTRY YARD.

Starting a Poultry Ranch.

CHICAGO, ILL., July 23, 1892.

TO THE EDITOR:—I have perused with interest the letters from the pen of Mr. Geffroy on this subject, and would suggest that he give us more details as to the breeds he kept, the age of his stock and, last but not least, the financial success, or otherwise, of his undertaking.

As an old poultry breeder, I agree with him that experience is better than theory, but I would strongly advise the beginner to try the two together as the easiest way of attaining perfection.

Instead of stationary houses, as used by Mr. Geffroy, I would recommend, where a large stock is to be kept, and plenty of space, that portable ones be substituted, so that the stock may be readily moved from place to place, thereby insuring untainted ground. The space under the houses will serve as a shelter from rain as well as the sun and will be much appreciated by the stock. This plan has been adopted by farmers in Europe (who do not make their poultry a specialty) and they are thereby enabled to put their stock over the stubble after the grain has been mowed and get them to act as gleaners of the fallen seed, so that nothing is lost.

I consider 50 or 60 fowls enough to be assigned to one house, as overcrowding is one of the chief things to be guarded against. The internal arrangement of the houses used by Mr. Geffroy are, with the exception of the food and water, quite to my mind, and if the nest boxes are made large enough and kept scrupulously clean, there will be little trouble with the hens using them.

Instead of placing the food and water inside the house, I would place these commodities at a respectable distance therefrom. There is nothing worse than encouraging poultry to be lazy, and while I used to feed the soft food in hoppers near the houses, I invariably scattered the grain around and gave them a little work to find it and, where practicable, this plan may be adopted with advantage, as it will train the stock to forage on their own account.

The best breeds to keep will depend pretty much upon the purpose for which they are kept and the taste of the owner. The dark Brahma is, and always has been, my favorite from a show point of view, but for all-round qualities I think the colored Dorking superior to any other known breed. I have not seen them mentioned in your columns, yet to the farmer, to the poultry keeper, and to the epicure, there is no finer fowl living. It excels all in weight, early maturity and quality of flesh, and it can compare favorably with any other breed for hardiness and laying qualities. Then follows the Plymouth Rock, Brahma, Langshans, Game, Indian Game and Wyandotte, all useful breeds, while, if a cross is wished, any of the first four named breeds will answer the purpose admirably.

If farmers would only give this matter a little attention and try the experiment, they would find that it is a very pleasant as well as a very profitable branch of their business, and if once they catch the idea, very few of them will give it up.

Personally, I would keep pure-bred birds only, and that, too, of one breed, as thereby, with the exception of a few breeding pens, the stock will not require to be separated nor any chances run of a cross breed.

Poultry clubs and shows are great incentives to poultry-keeping and they ought to be encouraged and well supported. Every county ought to have its club and show, while once a year, at least, there ought to be a State show, supported by every one of the county clubs, when I venture to predict that thousands of people will catch the "fever" and the industrious, intelligent poultry keeper will be rewarded. It does not require a million dollars nor a million acres to become a fancier, or to breed poultry successfully, and it is a fact worthy of note that in Great Britain the best poultry and dogs (if I may mention another paying hobby) are bred by what may be classed as the poor people, and sold at fabulous prices to those who have more money than brains and who fail where the poor man, who studies his business, succeeds. It must not be forgotten that the cost of keeping pure-bred stock is no greater than keeping mongrels, and although they may cost a little more at first, they will pay better in the end. It is on this rock that many an otherwise good farmer founders in this branch of his business, and it is not to be wondered at, as mongrels cannot compare with pure-bred stock in any way. Let farmers then take up stock-breeding on a proper basis, and they will find that their stock is not only "a thing of beauty and a joy forever," but also a very profitable investment. Yours,

J. A. BERNARD-HOSSACK.

A Penn's Grove Poultry Grower.

E. A. Hoadley, living near Penn's Grove, says the *Sonoma County Farmer*, has 16 poultry houses, 10x12 feet and 7 feet high in front by 4 feet in rear. All have cement floors, which serve the double purpose of keeping out vermin and ease in keeping clean—two of the most essential points in poultry-raising. He keeps about 1200 hens and is raising this season about 500 chickens. Everything on the place is very clean and not one sick chicken did we see. Mr. Hoadley buys his feed by the carload, and of course gets it at carload rates. He feeds wheat, middlings and barley, which is cooked three times a week in summer and every day in winter, in a large kettle holding 40 gallons, which is set in a cement furnace conveniently located in the yard, and requiring but little fuel for cooking purposes. At night the kettle is tightly covered, and in the morning his fowls have a warm, healthy breakfast. He does not deal it out in dippersful here and there, but loads the feed on a sled and drives from one house to another until the flock is all fed. He feeds in troughs about 10 feet long, 8 inches wide and 4 inches deep. After feeding is over, barrels of water are put on the sled and the round made again. The water is put in "V"-shaped troughs where the fowls quench their thirst at will. After feeding and watering, every perch goes out in the sun and the floors are cleaned of all droppings. The poultry range of 10 acres is planted to corn or potatoes, thus serving a double purpose. The balance of this 20 acres is planted in corn. His henhouses are built in rows running north and south, and 180 feet apart each way. There are several capons running around in the yard that look very nice. Mr. Hoadley says from this time on he intends caponizing all his surplus cockerels, as they take on more flesh and bring a better price in the market.

THE VETERINARIAN.

Answers to Questions from Rural Readers.

Nasal Gleet, Chronic Catarrh, Ozæna.

405 BRODERICK ST., S. F., July 29, 1892.

TO THE EDITOR:—The definition of this disease is a continuous, remittent, or intermittent discharge of a varying character from the nasal chambers. After a protracted severe case of simple catarrh, and where debilitating influences, either extrinsic or intrinsic, have been in operation, it not infrequently occurs as part of the general atony that the secreting membrane of the nasal chambers and upper air passages require a longer time than usual to regain its normal tonicity and healthy function, during this time exhibiting, as the most marked feature of the unhealthy condition, a continuous or intermittent nasal discharge.

Treatment.—In every case of chronic nasal catarrh, until we are thoroughly satisfied that the discharge with which we are dealing is not glanders, and not likely to propagate itself, the animal must be strictly isolated and the stable utensils kept solely for that animal. The horse ought to have rest or very light work, good and liberal diet, and to be under the influence of correct sanitary conditions. The most successful constitutional treatment, medicinally, I have found consists of arsenic or salts of iron. The arsenic can be given as Fowler's solution, half an ounce morning and night in the food or water, with one drachm of the powdered sulphate of iron. Sulphate of copper in one-drachm doses is also highly recommended, powdered cantharides from three to five grains administered twice daily.

As a local application, the astringent tonics of the mineral salts, as the sulphate or chloride of zinc or sulphate of copper, five grains of the zinc chloride to 40 grains of sulphate of copper to the ounce of water. There is no merit in nasal injections unless the liquid is regularly distributed over the whole surface of the nasal membrane. This can be only accomplished by tact and patience.

Iodoform may be driven up the nostrils once or twice daily by means of an insufflator. This method of local stimulation I have seen attended with much good.

If this disease does not quickly succumb to the above treatment, a surgical operation will have to be performed, which consists in trephining the sinuses of the head.

Nasal gleet may arise from other sources than catarrhal inflammation, such as external injuries, caries of the upper molar teeth, alveolar abscesses, disease of the facial bones, and in cattle and sheep from the lodgement of the larvæ of the *œstrus bovis*.

LOUSINESS, PHTHIRIASIS.

Horses are liable to a disturbed condition of the skin from the residence there of at least three species of what are ordinarily known as lice. Two of these are individuals of separate families of the same order, and the third is an accidental visitant received from cohabitation with poultry. Of the two former, the *Hæmatopinus equi* is the proper pediculus and a true blood-sucker; the other, the *Trichodects equi*, lives among the hair and on the skin, not finding its food supply from the blood direct, but in the exuvia of the structures. These two species are more apt to be found on horses neglected or suffering from poverty, while the inroads of the louse of the domestic fowl are regulated by the poultry houses, their condition and proximity to stables.

Treatment.—In the case of the poultry louse, *Gonioctes Burnetti*, any attempt at the destruction of those on the horses will be unavailing without the removal of the original cause. In the application of a wash to the skin, the difficulty is not that of destroying the insects, but of obtaining at the same time the destruction of their eggs. The best way is to repeat the applications of parasiticides until the whole are destroyed as they appear. There is nothing better than an infusion of stavesacre seeds, or tobacco, in proportion of one ounce to 20 or 40 of water.

A. E. BUZARD,
Veterinary Surgeon.

PARTIES looking for a favorable location for a starch factory have found the conditions favorable at Petaluma, Sonoma county. It will afford a fair and assured market for large or small potatoes and give new impulse to that crop. The parties interested intend to have the manufactory in running order for the crop of this fall.

HORTICULTURE.

Exhibits of Olive Products.

The Olive Growers' Association of California, at the meeting held in San Francisco, July 21, 1892, decided to make an exhibition of olive oil and olives at the Italian-American exposition at Genoa, which opened last June and will continue until December next. The association requests that those desiring to exhibit their products shall send no less than one case of the finest olive-oil they have. Exhibitors will find no difficulty in transporting goods to Genoa, there being direct communication between New York and the port of Genoa, and to save time should be sent from here to New York by express. Exhibits will be free of tax and exempt from custom and municipal duties. Cases thus to be sent should be addressed to E. DeGiovanni, Italian-American Exposition, Genoa, Italy. For further information address the agents, Cevasco Bruzzolara & Co., 632 Montgomery street, San Francisco, Cal.

The association also decided to make an exhibition at the Manufacturers, Dealers and Consumers' Food Exposition, to be held at Madison Square Garden, New York, under the auspices of the Food Manufacturers' Association, the object of which is to promote the manufacture, sale and consumption of wholesome food products, etc. The association desires to make a collective exhibit from throughout the State, and is now in correspondence as to space, cost, etc.

Those desiring to be represented in said exhibition are requested to at once let us know what they wish to exhibit (olives or oil) and in what manner put up. No less than one case is requested from each grower. The only expenses to be incurred will be the cost of space and the care of the exhibit while on exhibition, this expense to be met by assessment, each exhibitor paying his pro rata and no more. Freight or express charges to be paid by the exhibitors.

The producers of olive oil are also requested to forward to the the Columbian World's Exposition at Chicago at least one case of their finest olive oil, and pickled olives, put up in the most attractive style possible.

B. M. LELONG, Secretary.

Assessing Fruit Trees.

William H. Robinson, Secretary of the San Joaquin County Board of Horticultural Commissioners, has filed his monthly report with the Board of Supervisors. In it he said:

It gives me great pleasure to report that the cultivation of fruit trees in San Joaquin county is gradually increasing—notably peaches, apricots, prunes, pears, almonds, and olives. There has been no boom, but a steady enlargement of the area devoted to its culture, and good fruit is sure of fair prices and a steady market. No distinctive effort has been put forth to present the claims of this county as a fruit-growing region to the notice of the assembled world at the Columbian Exposition, and San Joaquin promises fair to be an unknown quantity at Chicago. Efforts heretofore made to establish a cannery have failed from lack of interest, inducement or faith in its ultimate profits as an investment, or in the business capacity of its promoters. Individual enterprise, however, promises to pioneer the way. It will soon become necessary to establish them on large orchards like the Armstrong tract and the Langford colony in order to can the surplus fruit when there is a glut in the market, or it becomes too ripe for shipment.

In view of the relation I occupy to the horticultural interests of the county, it is reasonable that I also report upon the methods of assessment and taxation of fruit trees, which, like codlin moth, phylloxera, scale and other insect pests, aid to destroy them and discourage all effort to raise the same. It is an Eastern proverb that the paramount duty of every man is to plant a tree, build a house and raise a child. The tax gatherer has included the first two in his category, leaving the rather unprofitable burden of the last wholly exempt, in view of the fact, possibly, that it is not wise to "kill the goose that lays the golden egg."

The constitution of the State provides that growing crops shall not be taxed. The interpretation of this provision has been practically applied to wheat, barley, oats and rye. If peach trees and wheat grow side by side, or jointly occupy the same ground, the wheat is not taxed, while the peach trees are. Why? One is taxed as an improvement and the other is not. Why? Both are valuable additions or ameliorations made and cost equally as much labor.

It is not possible for the Assessor to tax the oak, ash or willow trees growing in a state of nature, nor would it be possible to tax trees as such, if they grew in a state of nature, although they produced the most valuable fruits—even oranges, peaches, etc. Why? Because they are not improvements in the legal sense. Since the cost of cultivation of corn, beans and other vegetables are not taxed as improvements, it is fair to assume that the whole tax levied is made upon the stump and leaves of a barren apricot, peach, pear, or grapevine, since by law the growing fruit is not taxable.

The purchase and planting of a fruit tree costs about 25 cents each, and vines 50 per cent less. For three years it is not customary to tax them; subsequently they bear fruit and come within the category of taxable property. Why? Because they bear fruit; but growing fruit is not taxable. Because they produce an income; but an income is not taxable. But they are taxed as an improvement. Why an improvement? They are not for three years, and the growth and maturity of plant life is not a fit subject for taxation, and during those years the trees have become a portion of the realty. But the land becomes more valuable, which is true; therefore it must be taxed. How? Simply as land. Here another provision of the constitution intervenes and says that improved and unimproved land shall be taxed the same. How then can an orchard be taxed more than other lands without orchard? The whole theory of taxation of fruit trees as an improvement, as enunciated by the State Board of Equalization, runs in a vicious circle of false reasoning that is a disgrace to the intelligence of the age. The undisguised spirit, motive and intent of this provision has been wholly ignored in the tax upon fruit trees.

If it were true that taxation was legally placed upon land according to productive value (which is not true, in fact), it would still be difficult, if not impossible, to show that the productive value of a fruit crop was any greater than of a crop of onions, tomatoes or wheat. Dried plums retail today for five cents a pound in the market. Any intelligent man can soon find out that this will not pay the cost of production. The State Viticultural Commission in a report made by Commissioner West, a year ago, warned the public against planting raisin grapes in view of overproduction, and consequent loss. Since then raisins have been brought here, shipped from Fresno at $25 per ton. To assess lands growing fruits at $100, $50, $25, or even $10 per acre additional in view of these facts is absurd, unjust and iniquitous.

Very few that are not engaged in the business appreciate the care, labor and expense involved in planting, growing, cultivating and pruning fruit trees, to say nothing of picking, boxing, canning, drying, shipping and marketing their products. This has, as a rule, so far been attended, with few exceptions, with loss rather than gain to the producer, taking the inequitable tax into consideration. Some more rational method of assessing and collecting taxes upon growing crops (misnamed improvements) should be devised, and the power of the State Board of Equalization restricted or defined in matters of classification, or the fruit industries of this State will soon be paralyzed and our fruit growers bankrupted.

Horticultural Displays at the World's Fair.

FREIGHTS ON DISPLAYS.—J. M. Samuels, Chief of the Department of Horticulture, writes to the Secretary of the State Horticultural Society as follows:

Under the present arrangement between the World's Columbian Exposition and the railroads of the country, the latter agree to carry exhibits to Chicago at regular schedule rates, and return them, to the regular owner, free of charge. On account of the perishable nature of most horticultural products, the above terms will be of no benefit to this large class of exhibitors, as they cannot be returned to the original shipper, nor are they in condition to be sold in Chicago after having remained on exhibition the requisite length of time. I would suggest that all State and other horticultural societies take the matter up at their summer meetings and pass resolutions requesting the railroads to modify this agreement in such manner that the shippers of perishable articles may receive the benefits of a half rate, at least, to the Exposition, and the same on articles which are returned. Copies of such resolutions should be forwarded to all railroads running through the territory covered by the Society, and a copy sent to this office for reference to the Traffic Manager of the Exposition. This is a question that might also be taken up by the different State World's Fair Boards, as they will have great influence with the roads doing business in their respective States, and may result even in securing free transportation over at least part of the route for collective exhibits made by and at the expense of the State organizations.

PUTTING UP FRUIT SAMPLES.—The Southern California World's Fair Association distributed 4800 glass jars and tumblers during the first three weeks of July. The committee is having great difficulty in supplying, as fast as needed, glassware for the six county organizations in the southern district. Pomona has filled her first invoice, and now wants an entire carload of jars. Riverside telegraphs for 240 jars and jelly tumblers, while Orange, Ventura and other counties are making equal demands. About 2000 jars were received from the East on July 23d, and it was thought this supply would not last more than one week. The glassware and dried fruit packages are furnished free by the Association to those donating fruit for the exhibit. Frank Wiggins, secretary of the Southern California World's Fair Association, writes to the State Commission as follows, with reference to his experience in the matter of liquid preservatives for putting on fruit: "The most successful preparation that I have been able to obtain is what is known here as the Baker compound, which is used in preparing water similar to the sulphurized method as given by Prof. Hilgard. It is more easily prepared and produces a better effect, although bright-colored fruit does not retain its color. This process we used at the Los Angeles Chamber of Commerce for two years with more satisfactory results than any other preparation. Just now we are having good results from the use of bisulphide of soda; also the salicylic preparation. If our preservatives prove failures, we will have a good stock of empty glassware to take to Chicago, to be filled with fruit after we reach there." San Diego county growers are putting up fruit for the Columbian Exposition in four ways: In salicylic acid water; in alcohol; sulphurated water; and in syrup made of the very purest white sugar. All those who have experimented in the matter of putting up fruit in jars agree that to effect the best results the fruit should be large, not too ripe, and must be carefully handled.

WASHINGTON FRUITS.—William L. LaFollette, Superintendent of the World's Fair agricultural exhibit for the State of Washington, is arranging for a complete model farm in miniature for the Washington exhibit. He will have a farmhouse, barns, fences and fields of growing grain. There will be fields of summerfallow, with tiny gang plows and furrows. Threshers, binders, and all other farm machinery will be shown in miniature as they appear when in use in the West. Mr. LaFollette will also erect a large cold storage safe with glass sides and neatly arranged shelving. The fruits of Washington will be shown in this during their season, and collectors throughout the State will renew the supply by sending fresh fruit daily to Chicago, by express. First, the safe will be filled with luscious strawberries, and from that on during the succeeding seasons, as the fruit ripens, the cold storage fruit display will be kept replenished with all varieties of ripening fruit from May 1st to October 30th, 1893, or during the entire time that the Exposition is open.

BEARING ALMOND TREES.—P. B. Armstrong, President of the Armstrong Fruit and Nut Co. which owns in the northern part of San Joaquin county one of the largest orchards in the world, covering 1015 acres, is preparing to send to Chicago 10 almond trees in full bearing to replant them on the Exposition grounds. The trees will be transplanted in boxes each four feet square. He also proposes to have as fine a display of peach and other fruits in jars as any fruit grower in the country. With this object in view he picked off nearly all the blossoms on certain trees, leaving only a few to mature, thus making the fruit larger and better. He expects to place on exhibition no peaches that are less than a foot in circumference.

JUDGE J. S. STABLER, an expert in fruit matters, says that the growers, dryers and canners of fruit in this State this year will probably make more money than in any preceding one. Last year the crop here of all deciduous fruits was phenomenally large, which, however, had to contend with the largest crop, including apples, east of the Missouri river that had been harvested during the past ten years. This year California will produce fully as many peaches as last, nearly as many apricots and nectarines, and about half as many French prunes, while the pear crop promises to be even larger, and prices this year will rule nearly twice as high as last. Ever since the organization of the California Fruit Union, facilities for shipping and marketing green fruits have been improving; refrigerator cars have become eminently successful; new markets have been opened, and the auction plan for selling fruit immediately upon its arrival in Eastern cities has worked well. Fruit growers flatter themselves that they are insured two prosperous years, as a very poor prophet could foretell that the Columbian Exposition in 1893 will be the means of greatly enhancing the consumption in that line. It is noticeable that the leading canneries are receiving orders from the East and Europe well up to their packing capacity.

FRUIT MARKETING.

What the Santa Clara Exchange Will Do.

Vice-President E. F. Adams, of the Santa Clara County Fruit Exchange, publishes in the San Jose *Mercury* a letter outlining the work of the organization, which all those contemplating similar movements will read with interest. We quote as follows:

I will begin by saying that the Exchange will certainly buy a lot, put up a warehouse and begin business. The present directors will not do this until, in their opinion, we are entirely ready. I presume that the directors will buy a lot whenever a suitable one offers at a proper price, and during the winter and spring call in sufficient funds to build a warehouse, so that our successors can begin upon it as soon as they are elected and have it ready on July 1, 1893. The reason for so little haste is the belief of the directors that, with prices as they are, most of the dried fruit will pass out of first hands and out of the county without the aid of the Exchange, because growers will be satisfied with prices offered and think it better to take them than to trust to the chances of doing better through the medium of an Exchange which has got its reputation to make. If we are mistaken in this, and if the business offers, I think we shall lease a warehouse and attend to the business in that.

I made this statement at the outset because I am satisfied that it is true, and I wish the fruit-growers of the country to understand it and not to be misled by statements to the contrary emanating from interested parties. The commission men and fruit-brokers of the State, in pushing their own business, have practically erected the fruit business of the State and made it possible for fruit-growers to live, and this has been done, I think, not by crowding out the products of our brothers in the industry elsewhere, but by tempting multitudes who have not been consumers of fruit, and by taking advantage of the early ripening of our product. We may be sure that these dealers fully appreciate all that they have done for us, and view with extreme dislike any tendency toward a cooperative movement on our part to do the very necessary work which they are now doing. They honestly believe we shall fail for lack of mutual confidence and of business ability and experience among growers. They say among themselves, and believe it, that we farmers are a cantankerous lot, ignorant of business methods, suspicious of business men, unwilling to pay for business ability, and unable to grasp the scope of a large business enterprise, but quarrelsome over unimportant details, and certain to go to smash on the rocks of our own ignorance and obstinacy. This is the honest opinion they have of us, and they say we shall not hold together for a single season. They believe that in so far as we have any success, it will be by the efforts of some one or more firms shrewd enough to capture the enterprise and steer it where it will do themselves the most good. But while this is what they think and say to each other, what they say to us is very different; the pushing and useful men whom they employ to contract for them tell us that this is a movement "exactly in the right direction;" they heartily hope it will succeed, but "dreadfully fear it won't;" in fact, it is "generally understood" already that "Beck has got it," or "Weber & Co. have got it," or the "San Jose Fruit Packing Company has got it," or somebody else has "got it;" it "may be all right," but the really safe way is for the growers to "wait a little" and see what is done; in the meantime they are ready to handle the fruit, and guarantee "several per cent better than the Exchange can do."

Now, the directors of the Exchange hear of all these things as soon as they are said, and while it would be undignified and improper for them as a body to take public

notice of such floating gossip, as an individual in a position to know I wish to say that there is not the slightest foundation for any of these stories; nobody has "got" the Exchange except the growers themselves, and I don't believe any one else is trying to get it. A clear majority of the directors have no interest in the matter except as producers, and the canners and driers who are joined with us on the board went into the movement in good faith, on the distinct understanding that the enterprise was to be controlled by the producers, entirely willing that it should and cordially giving us the great benefit of their experience in perfecting our plans.

I think it important that fruit-growers generally should understand how it is that the interests of canners and driers are one with those of the growers in this movement. I find that many—perhaps most—growers think them our natural enemies, and that they would not join us except with the intent to devour us. Take the canners for example; when they have bought and put up their fruit they naturally wish to get all they can for it; canned fruit is comparatively an expensive product, and their worst competition is from the dried fruit, which is much cheaper; a demoralized dried fruit market, enabling large consumers to stock up at very low rates, tends greatly to reduce the sale of canned goods; the majority of the dried fruit is of varieties that canners use little or not at all, so that increase of price of the fresh product does not affect them; and in the case of apricots, peaches and pears, which are both canned and dried, the canners will gain much more by a general stiffening of the dried fruit market than they will lose by any probable increase in the price of raw fruit, because the sum paid for the fruit itself is but one part of the cost of the canned product, which involves more outlay for sugar, labor, machinery and boxes than for the fruit itself. The position of the driers is but little different, but leads to the same conclusion; when they have bought and dried their fruit they wish to get all they can for it. The worst competition they can have is from the growers who retain their fruit, and whose interests are not large enough to warrant the expense necessary to obtain accurate information about the markets of the world. The driers desire these growers to organize, get their fruit together in one place, and inform themselves about the market. Then all will be able to obtain whatever prices the state of the market will warrant and all be prosperous together. No plan proposed for the Exchange interferes with individual trading among those who desire it and there will always be a great deal of business of that kind. In the conduct of the Exchange there can be no conflict among growers, producers and raisers. Some driers may suppose their interest to be served by keeping the growers discouraged and ignorant in order that they may buy cheaply, but the trouble is that the disorganization and ignorance continues after the driers have secured their stocks, preventing the driers from securing the advance which they might otherwise hope for. They are in the position of the merchant trying to compete with the manufacturer in the latter's own goods. It cannot be done.

Further Work by the Raisin Producers.

On Saturday, July 30th, the Fresno raisin growers assembled again to advance their cooperative movement. William Harvey, the secretary, made the following address upon the progress which has been made so far, and the condition in which the association is at present:

"Up to 6 o'clock last evening there had been signed 33,160 acres, and 2000 more are reported from Tulare.

"Packers who last year put up 1,500,000 boxes of raisins have signed. They say that the reason for low prices last year was the scarcity of money. This condition does not exist this year. Last year the growers had to sell at figures which netted the grower 1½ to 2½ cents for their raisins. There is no overproduction, and this year's crop will work off easily.

"It was thought for a while that A. D. Barling and A. Griffin had violated the compact—the former by buying at 3 and 4 cents and the latter by selling at those figures. But, on inquiry, it has been learned that Mr. Barling furnished the trays and does the hauling, thus making an equivalent of 4½ cents per pound.

"There is no excuse for any man selling for less than the stipulated price, as the bankers of Fresno will advance money on raisins which are in packing houses, and any grower can realize 50 per cent of the value of his crop as soon as it reaches the packing house, and he is not forced to sell for less than 4½ cents."

Secretary Harvey then read the following communication, which is self-explanatory:

FRESNO, CAL., July 29, 1892.

William Harvey, Esq., Secretary Raisin Growers' Convention, Fresno, Cal.—DEAR SIR: I take pleasure in reporting to this convention that, pursuant to the call of the chairman, about 15 of the raisin packers of this county were together all of Monday last, in making minimum selling prices. For packed raisins, the f. o. b. prices finally agreed upon are as follows: Fancy layers, $2; 3 crown layers, $1.70; 2 crown layers, $1.50; fancy loose unfaced, $1.45; fancy loose faced, $1.50; 3 crown loose, boxes, $1.35; 4 crown loose, sacked, 6½c; 3 crown loose, sacked, 5½c; 2 crown loose, sacked, 4c; seedless muscatel, 4½c.

These prices are based on 4½ cents for good raisins in the sweat box. We have now the signatures of 22 packers, aggregating about 1,500,000 boxes, and we have promise of several others that will sign the agreement adopted at the last State convention, and some have declined to sign it at all.

We are, however, hopeful that the required 95 per cent will be obtained, and to secure that desired end, a committee has been appointed consisting of G. B. Olufs, F. Romaine and G B. Noble, to get such legal advice as may be necessary in drawing up a paper that will be binding upon those packers who sign it.

It is further agreed that this committee shall either personally interview or correspond with those packers who have not yet signed the agreement, and obtain from them their signatures, if possible, or in any event a definite statement of their attitude toward this movement.

I am, GEO. B. NOBLE, Chairman.

After discussion, it was decided to form an incorporation to advance the work thus far done by the growers and packers as an association.

METEOROLOGICAL.

The Weather Bureau and Its Relation to Agriculture.

Read by B. S. Pague, U. S. Weather Bureau, Portland, Oregon, before the Oregon State Grange, at its annual meeting recently held at Albany, Oregon.

The honorable Secretary of Agriculture, the official head of the agricultural intersts of the United States, says of the farmer of the future that "he must be sufficiently well educated in science as far as it is applicable to agriculture, and he must be intelligent enough to study his surroundings and to apply his knowledge to the conditions about him. The farmer of the future will be a business man, able not only to compel his soil to do its best in the matter of production, but to study the markets and know what will sell the best, and what will command the highest price. The farmer will keep his accounts like any other business man. As to the question of his education, when you consider that he must have a knowledge of all the principles of animal and plant life; that he must understand the constitutent elements of soil and fertilizers, and that he must have some knowledge of meteorology, chemistry and the other sciences closely connected with crop raising, you will see that the ideal farmer of the future will have to be not only a brainy, but a well educated man." This opinion coming from the source it does, carries with it a weight that should be impressed upon every tiller of the soil throughout the country in order that the coming generation may be able to cope with those conditions which will most likely surround the then farmer. It is my privilege to engross your attention for a few moments on one of the subjects which the farmer must know in the future and which he knows more of now that he did five years ago, and that is meteorology or the science of the weather. There is no element or collection of conditions of any order or degree which enters so minutely into all our being and vocations as does the weather. Upon the climate of a place depends the physical being, the productions, the existence of all animate as well as inanimate things, and any thing which so affects us should have more study and investigation than is generally accorded to it.

The National Weather Service, a bureau of the United States Department of Agriculture, is a creature of Congress, for the purpose of making observations and reports of storms, the investigation of the growth and development of crops, the giving of information to mariners relative to storms that may affect them, the giving of information relative to rains and fair weather, the approach of frost, the collection of statistics relative to the efforts of the weather on health, statistics for the engineer, the merchant, the physician, the lawyer, for, in brief, all classes, all professions, all people.

The Weather Bureau is an organization for the people, no special class, but for the public in general, and owing to the peculiar effects of the weather on agricultural operations, it is of no greater benefit to any class than it is to the farmer.

It is of value to the farmer to know the amount and distribution of rainfall, the extremes of temperature, the amount of sushine, evaporation, the temperature of the soil at various depths, the temperature of the rays of the sun, the radiated heat from the earth, the occurrence of frost, and, in fact, all of those peculiar weather conditions upon which the growth and development of crops depend.

The weather enters directly into your daily occupation and I have no doubt, that many of you have a personal diary in which you note daily the weather changes and the effects of the weather on your crops.

The Oregon State Weather Service cooperates with our national bureau. The instruments used by the State service are furnished in part by the State and in part by the national bureau. Salaries and office expenses are borne by the general government. The State service is for the purpose of going into more minute investigation concerning our State's climate and production than the national bureau is able to do, and it is for this purpose the State legislature, in 1889. so wisely created the State bureau.

We now have instruments, especially thermometers and rain guages, all of standard make, distributed, at least one set to each county, and thus have such a distribution of instruments that the general and quite minute conditions are ascertained, recorded, and from a common basis of standard instruments are comparable,

The general climatic conditions of the State are fairly well understood, but it is the local peculiarities that affect productions; for example, the frosts of April 12th to 17th generally injured fruit. Now, most of you know, possibly, though I hope not, from sad experience, that the fruit on low lands was more seriously injured than that on the higher ground, and it is these occurrences, these peculiar locations and situations that need to be examined into. The Weather Bureau cannot examine every farm, nor every section; these are the things you farmers must examine into. Practical experience is very good, but theory mixed with practical experience is better, and, by investigating, you form theories, from the theories more in-investigations, then the practical work. Your Agricultural college and Experiment station is for theories, investigations and experiments, for the purpose of demonstrating just what can be produced under certain conditions, or what results follow certain conditions.

The Weather Bureau is now conducted on a plan in keeping with the spirit of the times; it is in a stage of advancement; its object is to benefit all, and you farmers we wish to have cooperate with us and see if we cannot be a mutual benefit. A merchant, for example, buys a large stock of goods and his object is to sell them at the highest price he can get for them; and so to do that, advertises what he has for sale, the more he advertises the greater will be his sales. This assertion is at least true of those selling specialties. Now if the merchant, who does not produce that which he has for sale, advertises to sell it, why not the farmer, whom we all rely upon for good times financially and for sustenance,—why not he advertise what he has for sale. The Weather Bureau does that for him every week when it issues the weekly Crop-Weather Bulletin. In that report the general conditions, advancing week by week from seed time to harvest, are reported; it is an advertisement, for from those reports the farmers throughout the whole country can closely determine the approximate results of harvests, the general supply and demand, and hence the prices, thus allowing him to sell at the most advantageous time. The manufacturer sells, when he can, when the supply is the shortest and the price the longest, as it were; and through a systematic course of observation, comparison and study, the farmer may become just as successful in selling his own productions as the manufacturer is in selling his, or the middleman selling that which you produce.

The Weather Bureau is endeavoring to furnish to every community, having telephone or telegraphic connections, the daily weather forecasts. We do not claim these forecasts to be absolutely correct, but they can be relied upon at least four days out of five; and as investigation and comparison proceeds we hope to be able to furnish even better forecasts. The daily forecasts are of especial value to the farmer, and by the extension of telephone and telegraph lines the forecasts can be disseminated more directly to him. The weather forecasting is one of the practical benefits to the farmer. The weekly crop-weather reports is another, at least it is so univerally acknowledged. The collection of the various meteorologic conditions in their various phases, to be reduced and worked down to practical application, which is now being done, form so numerous a collection of examples that time will forbid their classification or numbers.

As the vintage season for the year is nearly at hand, the wine makers of the State are again confronted with the question of storage room. They must sell their stock to make room for this season's wine or provide additional cooperage. The wine product was short last year and will be this; but the wholesale men do not want to pay figures which the makers consider fair. They are counting on the wine makers having to sell to make room for the new crop. The St. Helena *Star* (Napa Co.) says there is only one way to overcome this state of affairs. The problem of cheap storage has been solved, and is now in operation by several large wine makers. Instead of securing small cooperage to be lodged in large and costly edifices, thereby adding to the cost of the wines, they have begun by obtaining cooperage at a low rate, the building being an after consideration. They first order large tanks from 12 to 15 feet high and from 14 to 16 feet in diameter, capable of holding from 14,000 to 20,000 gallons each. These tanks are sent from San Francisco, carried to their destination and set up in place by competent men at a total cost to the purchaser of 1¼ to 1½ cents per gallon. When these tanks are set up in the place, they may be inclosed in a cheap frame building which will be sufficient for all purposes. Heretofore they were obliged to pay 2½ to 3 cents per gallon for the privilege of storing their wine in cooperage belonging to another man and in another man's cellar, together with the incidental expenses of drayage, gauging, watching, etc. By following the process mentioned, storage costs 1½ cents a gallon at a maximum for the first year, the wine is always under the maker's own supervision, and the cooperage is his own. When the San Francisco wholesaler sees that the wine makers are independent, and not obliged to rid themselves of their old stock to make room for new, he will be less disposed to treat them like beggars and impress upon their minds that without his good wishes they must starve.

The Los Angeles World's Fair Committee has prepared a plan of cases for making an exhibit of curios at the World's Fair. The cases occupy a floor space of 20 by 40 feet, the center one being 10 feet high, 30 feet long and 10 feet wide. This is surrounded by counter showcases resting on a three-foot counter, where an attendant can stand as bodyguard over the cases. The cases will be nickel plated, the estimated cost thereof being between $700 and $1000. The committee on a nut exhibit has arranged a plan for a pyramid of glass showcases, covering a floor space of ten by ten feet. On top of the pyramid will be a glass column 15 feet high surmounted with a glass urn. The cases are to be filled with walnuts, the display of grade and quality being made from a front view of the cases, the column being the ornamental feature.

THE water from the Colorado river is flowing into Salton lake, Colorado desert, San Diego Co., but it has attained only a depth of 23 inches in the deepest part of the lake. For the past week the water has been at a stand, possibly lowered a little. The varying winds make it impossible to determine any fall. The salt works are in full operation, and there is good reason to believe there will be no suspension of work.

VACAVILLE, Solano county, is very active. The fruit crop in the valley is the best ever known, and already this season over $1,000,000 has been paid to the fruit growers for orchard products, and it might be said the season has but commenced. A corporation has just been organized for the purpose of erecting a fine hotel in the town. It will be three and a half stories in height, with all modern improvements.

THE big raft which was towed down from Noyo by the steamer Noyo consists of nearly 2,000 piles. It was 70 feet wide and nearly 1,000 feet in length. The raft was taken to Mission bay and broken up last week.

THE Southern Pacific has a special steamboat to travel up and down the Sacramento river gathering fruit for shipment East. The boat collects large quantities to be made up in carload lots.

The Home Circle.

Inadequacy.

The haste, the bended knee, the cry
With eager youth's ideal warm,
The sad love in the Master's eye
That followed the departing form:

Fine ardors quenched in caution cold,
Pure dreams that never dawned again—
A picture here to thrall and hold
The fleeting memory of men.

O weak and melancholy doom,
To his young heart's bright festival
To bid fair guests and not find room
For the most gracious guest of all:

To hail the Holy, greet the Just,
To ask, and crave, and still not stay,
Wistful and frank to almost trust,
Yet pass to gilded want away!

O boundless misery, dismal fate
Of minds that self but half subdue.
To reach, of loftiest life, the gate,
And valor lack to venture thro':

To cheat the infinite desire,
To halt and falter near the goal,
To kill the spirit's mounting fire,
To save the shadow, lose the soul!

A story old, yet vital now
The vision and the voice abide,
A beckoning shape with star-bright brow
Travels our paltry lives beside;

A voice that clear, persistent, low,
Softly persuades, and lingers long,
Breathes where the ghosts of beauty grow
From color, music, marble, song;

Calls in blue morn's bird-echoing air,
Murmurs amid the twilight pines,
Whispers in sighing streams, and where
The rosy globe of sunset shines;

Speaks from shy blooms in spring that b ow,
From the still stars that beam above,
From lights in conquering eyes that glow,
And the strange charm of woman's love.

For duty's self-forgetful pain,
For stainless thought, for service high,
Still pleads the urgent inward strain,
While one like God seems gliding by.

But we, indifferent, deaf and blind,
In mean, contented ways drift on—
Some moment we shall start to find
The voice hushed and the pilot gone

—Joseph Truman, in the Spectator.

Rest in Rose Forest

Written for the RURAL PRESS by DUANE MORLEY.

Crossing the angle of a field, to save the remaining sides of the triangle by highway, I came upon Rose Forest. And a forest it was, such as could not have been outside of California or a tropical climate. Rose Forest. And I was taken with it, intoxicated by it. And, since seeing it, exploring it—its every nook; since inhabiting it; since devouring it with my eyes—yea, with all my senses—heaven, if there be aught of heaven for me, must be a place of roses, a wilderness of wildflowers. Now, I am as susceptible of sensations as a thrush or canary, and the first burst of Rose Forest upon my vision struck in upon me more eloquently than a royal pageant; as eloquently as a gorgeous sunset; and more perfectly than either or both would have done, because it was altogether unexpected. Imagine an acre, densely wooded, the rose trees thereof in fullest flower—rose trees gigantic as alders, dense as hazels, and nearly as clear of thorns as either—and before you is the picture I would present. For some reason it was unfenced, and, to every wayfarer free of access.

I am a paper hanger (known in the city as decorator, in the metropolis as embellisher), and there, with overalls and shears beneath my arm, I flung myself down in Rose Forest to rest. Mirabeau, while dying, cried: "Cover me over with beautiful flowers." While *living*, came that wonderful boon to me—embowered with roses. To enumerate the ten thousand fancies which the scene, the *presence*, inspired, would prove an endless task. From repose comparative, I passed into repose positive, perfect—and slept. The sleep had been superinduced by a full half day's walking, it then being high noon, and by a strolling band of sheep, with their monotonous, multitudinous nibblings and wheezy breathing. I must have slept an hour, awakening to hear the gossipy chatter of two middle aged dames. So near to me were they, that I could not move without attracting their attention; and, recollecting how nervous the sex generally are, I concluded to remain an unwilling—as I was an unbidden, listener to their talk. Practice makes perfect, and these middle-aged knitters (they were knitters as well as talkers) ran the yarn from their tongues as freely as they did that from their bobbins. And it was comprehensive; at least, so I judged from the multiplicity of subjects introduced, from the breaking of the leg of a horse to the reported engagement of a rural pair. After an hour, the yarn of their bobbins ran out, that of their tongues came to an end, and they went away. Once more alone, I arose from my couch of fallen rose leaves, freed myself from dust, revived myself by a face and hand-bath in a brooklet, and then resumed my course.

A few hundred yards therefrom, I came to an orchard, and in the orchard, a magnificently painted house, a thing unusual in rural districts. Upon a trellis and before the house, flourished a clambering vine, which the owner, as I rightly divined, was that moment trimming and training. Entering into conversation with him, I found that he was in need of just such services as I could render, and that he had an elegant pattern of paper and a full supply on hand. In short order we struck up a bargain, himself to help at the pasting, myself to lay the paper the day following. Our conversation that evening ran upon current politics and economic topics, little being said outside those lines; and I retired early, and next morning rose early to prepare for the work of the day.

You, reader, are probably as well aware as I of the fact that a decorator, like a barber, is nothing if not communicative; and, as I had a workbound listener, I rained the stream of talk upon him. I can work better when I talk, and I laid the paper on at a most prodigious rate. Three-quarters of the day were gone, and three-quarters of the paper placed, when I turned on the stream from its most recent sources.

"Bill Barlow's horse has broken its leg short off."

"Yes," said Benson, my employer, in response; "I knew as much, but how did you hear of it? You came from D. and by the D. road." I managed to evade a direct answering of the question, and after awhile started in afresh.

"The Jenkinses are in a bad way, I hear; quite likely they will lose their place, by Jake's running away, the old man's gambling propensities, and ——"

"How in time did you get wind of Jake's escapades and the old man's gambling? Do you know the Jenkinses?"

"Never saw one of them in my life," I slowly replied to the last question, at the same time wondering how I could avoid answering the first one. Just then Mrs. Benson came in to look at the two rooms done and the one we were finishing. I kept quiet—*shudderingly* quiet—about matters not strictly business; nor did Benson, as I feared he would, renew his inquiry. As the paper was difficult to paste, that was in my favor; besides, I rolled it on as fast as I possibly could, in order to keep Benson busy. Mrs. Benson finally withdrew, and, after a while, I launched out again.

"Jennie Dalton's siege with the smallpox has ruined her beauty; and they say that Will Plimsoll has forsaken her and taken up with his old love, Bessie Harlowe; and Kittie Jackson and Brad Furlong are engaged."

"Great Scott, man! you must be a wizard, knowing all things near and far. You ——" Just then a breechy cow broke through the palings into Benson's flower garden, and Benson, running out, blunderingly knocked the shears into the paste bucket and the wet paste brush off on to the figured side of the wall paper. He never stopped to look at the damage done within, in his haste to repair that without; and I shouted to him to take his time, as I could finish the room. That being the remainder of the work, I knew I would be unmolested with questions I did not care to answer, though self-provoked; and, as Benson was aware that I wanted to get to the next town that night, he had his horses and hired man ready to take me, as soon as the evening meal should conclude. And the meal was nearly over when Benson addressed his wife. Said he: "Wife, our paper hanger is a wizard, a seer, a clairvoyant, a mystery-monger or something like. He knows that Barlow's horse has broken its leg; that Jake Jenkins has run away, and ——" Just then I caught his eye and shot him a look both of entreaty and warning, and he subsided. Then we turned the talk into another channel, the while a *rosy* hue overspread Mrs. Benson's face. Just as I climbed into the carriage with the hired man, to leave, said Benson:

"How did you come by all your news?

"Whispered me by the birds of Rose Forest," was my answer.

"Just as incomprehensible as ever!" exclaimed Benson, as he turned to go back to the house.

—Dolly—"It seems strange that we don't hear of Charlie Bullion's engagement to Miss Flipp; she is continually throwing herself at his feet." Cholly—"Yes, my dear boy, but you must remember that women can't throw straight."

Dross.

There is a rickety little house in one of the side streets of lower Second avenue in New York, a street where the unclean majority swelter, where they air bedding from the windows, and throw garbage into the gutters, and where, at night, whistles and whoops and cries tell of doings that even the unclean majority would scorn by day—a dirty, unhealthy, poverty-stricken street.

On the third floor, the upper floor of the house, there lived, some time ago, an old man and his son. Their name was McCloy. The old man was very feeble, and only went out to do his slim marketing. His son Danny supported him.

Danny was a lumbering "longshoreman," who worked hard, rarely got drunk, and loved his father with the rude, pitying love of a chuckle-headed Samson. The prevailing expression, in fact, of Danny's face was stupidity—the insurmountable stupidity of a man essentially uneducated, work-hardened and Irish—the stupidity of the mastiff.

These two always ate supper together, and the old man always told Danny about the dead wife, "a foine, hard-working woman," and Danny always amused his father, throwing scraps of food into the street to see the children and dogs scramble for them. Then every morning Danny would leave a little money at his father's bedside for the day's expenses.

When Danny had gone to toss boxes, bags and barrels, and to swear upon the docks, Mr. McCloy would set aside half of this money for his day's expenses, and put the rest in his straw tick. It was a safe bank, for no one ever disturbed the straw tick but Mr. McCloy. Mr. McCloy had done this ever since he had been too weak to earn a living, ever since he had been a dead weight on Danny's shoulders, and had thus saved quite a sum, nearly $80. No one knew it, not even his son; the $80 were all his own; and then, when he died, his son Danny would not have supported his father for nothing. So, year in and year out, Mr. McCloy denied himself the poor meals of the "eating-joint" around the corner, and hoarded up a reward for his son.

Of course, Mr. McCloy felt like a very worthy man, through his unselfish economy. A miser? No, only a wise and loving father; but still, for yellow-white old men a slowly growing silver hoard has, though unadmitted, a subtle charm, a self-rewarding essence.

One evening Mr. McCloy, according to his custom, was counting his money on the floor by his bedside. He was happy. He had saved 25 cents that day, an unusually large sum, for he had been too weak to go out, so that his meals had cost him nothing, for they were not. Lost in the vast calculations which this unusual gain had called up, he had not noticed the lateness of the hour, and he still counting and recounting the little silver coins, glittering in the dusk light. Clink, clink, clink, they went, as with trembling hands he dropped one upon another, adding up the sums with the laboriousness of a schoolboy and the precision of a bank teller.

Suddenly the door creaked in a complaining nasal tone, and, with a frightened gasp, the old man looked up. There in the doorway was Danny's towselled red head, the rest of his body vanishing in the blackness ness of the hallway, gaping in blank astonishment at Mr. McCloy and his money. The old man crowded back guiltily into the corner of his bed, and gazed, as though mesmerized, into Danny's little shining eyes, and Danny's little shining eyes gazed at the old man, slowly losing their look of wonderment and taking on the look of a suspicious, angry dog.

At last, with a clumping of heavy boots and a reeling gait, Danny made for the bedside, clawed up the neatly piled coins, and stood over the old man, swaying unsteadily, the last handfuls of money peeping through his clenched fingers.

"Danny," the old man began timidly, "hold a bit an' Oi'll"—the soothing spell of silence was broken, the drunken idiot became rabid. "Ye sneak! ye—ye ould thief! ye durty beggar!" he stuttered, "take that!" kicking the old fellow viciously in the belly. Then, with a volley of tipsy curses, he thrust the remaining handfuls of money into his overalls and reeled clumsily out of the door and down the stairs.

Night passed amid the whisperings of foul pain and pleasure in the poverty-damned streets; the stillness and grayness of the dawn came; the noisy, glaring day faded into dusk, and ever the sharp, smoky city wind crept in at the window, and the white hairs of the insensible heap on the bed fluttered airily; then, just as dusk was dimming into night, with a moan the heap on the bed opened his eyes. "Plase, Danny, plase won't ye wait, an' Oi'll tell ye"—he stopped speaking. Where was Danny? He had been there only a moment ago, how could he have disappeared so suddenly? Oh, it was all a nightmare. He hurriedly and anxiously thrust his hand into the mattress. The money was gone and—Danny.

With a beseeching cry the old fellow made for the window, and in a cracked, agonizing voice called his son. His strength failed him then, and he fell beside the window, with his arms dangling over the sill and his head resting on it; thus he knelt in a half-stupor, staring out into the street. Soon he began a whispering to himself, his voice growing gradually louder, "Yes, he'll come back, will Danny. Oi can spy him whin he passes the gas lamp at the ind of the shtrate; Oi'll watch that; thin Oi'll tell him all about it. Ah, Danny, Danny, ye must come back to dad!"

Dan McCloy had been on a spree. It was one of the finest sprees he had ever been on, and the best of it was that he had made a lot of money. It pays to go on a spree when you find $50 or $60 in your pockets on coming to yourself. Dan had not the faintest notion where the money had come from, but then—let well enough alone was a wise motto; good luck didn't come every day.

Of course, Danny felt rather guilty about staying away so long from his father—it had been three days since he had seen the old man; but Danny guessed it would be all right, with such a fine surprise for him, all this mysterious money; for money covers a multitude of sins.

Filled with these reflections, Danny steered for home, in a bunged-up, battered condition, but withal cheerful. As he turned the corner of his street he paused to reconnoitre. Suddenly a warm glow of repentant affection sped over his heart—there—up the street—at the window—there, was his father waiting for him—looking down the street—at him!

With a wave of his crownless derby Danny set out on a run for the house. "Hillo! Daddy! come back at last!" he shouted, as he drew near. He bounded wildly up the two rickety, rattling flights and burst into the room, crying, "Here do be a trate for ye, dad! Oi've made a sight of a—dad!" he suddenly exclaimed with a start, why—why doant ye spake?"

The old man was looking out of the window.

A shudder crawled over Dan's body, and a vague recollection of something that had happened in this room flitted through his brain. Slowly his memory grew clearer and his heart sickened; before the unwilling eyes of his brain, memory, returning, held up a clearing picture. He turned trembling hither and thither, glancing at the well-worn, tumble-down furniture, the dirty bed, with a slit visible in the mattress, the dead heap at the window, and felt the horror in his mind dumbly vouched for by every silent object in the room.

"O-o-oh!" he shuddered at length in a low, awakening tone.

The house was very still, as still as that pitiable heap by the window—it could not be dead! He stepped reluctantly toward it craning his neck on this side and on that to catch a glimpse of the face, while his heart drummed, and his ears sang with the stillness. At last with an effort he pulled it from the sill. It fell with a thump on the floor, startling the surrounding stillness. How stiff he was, the old man—with such a miserable sadness about the blue lips! His father had worn that expression when he died—looking out of the window to the street corner—watching for *him*.

When they found the old man dead two or three days after this (people in poor districts are not troubled with sensitive nostrils) the floor was covered with $50 or $60 worth of small coin; so to-day the dingy little brick house is pointed out as the house where the old miser starved to death amidst his money.

Henry B. Eddy, in the Household Advocate.

About Centenarians.

Written for the RURAL PRESS by CLARA S BROWN.

Men of science have maintained that the natural life of man is nearer 100 years than the accepted three score years and ten. The nearer one approaches to primitive simplicity of living, the more likely one is to prolong existence until the century mark is reached. Late hours, improper food, excess of stimulants and the many strains upon the nervous system entailed by fashionable life should be avoided by the person who would acquire the experience of a hundred years in this mortal sphere.

We are told by investigators that th average life is 38 years, that one-fourth (the race die before completing their eigh year and one-half by the end of their 17 year, only one person in 100,000 living

the age of 100. Married people, the sages say, live longer than the unmarried, tall persons longer than short ones. Women have a better chance of life than men while they are on the sunny side of 50, and a less favorable one after that. Persons born in spring have a more robust constitution than the children of other seasons.

It was an English lord who aptly remarked that many men nowadays die of old age at 45 and 50. There is a marvelous child in the United States whose development is so abnormally rapid that physicians say he will reach senility by the time he is 25

Unquestionably, the duration of human life was longer in Bible times than it is now, and the rush and conflict of the 19th century are responsible for many premature deaths.

It is encouraging to read that in the last ten years the average man's life has increased five years and woman's eight years. The physical culture "craze" may have had something to do with this added longevity. Certainly the youth of to-day are more robust than those of the preceding generation and more interested in outdoor sports. There is every indication that the generation to come will be superior to its predecessors physically, if not mentally, in part as a result of the emancipation of women from conventionalities that forbade healthful exercises in the open air.

The would-be centenarian must not only be careful in his manner of living, but he must think life is worth living, cultivate a cheerful habit of mind and refrain as much as possible from worry. Hard work will not hurt him so much as a disposition to fret, and a conviction that this world is a poor place anyhow.

I have been taking an interest in the matter of centenarians for some time and have been surprised to see how many there are in the United States. We think it a wonderful thing if a resident among us attains the age of 100 years, yet investigation shows that this has occurred, and is occurring, in many parts of the Union. If complete data could be obtained, its publication would create astonishment, I am sure.

My own list of centenarians is too long for this article and I will only mention a few instances of longevity in this State. Some years ago a disgruntled visitor to California, after returning home, wrote a remarkable letter to the *Prairie Farmer*, in which he made the statement that no old people were to be seen here, the climate being unfavorable to advanced age. He had not heard of the Indian woman at San Gabriel who was 118 when she died, and who received such distinguished visitors as Helen Hunt Jackson and Mrs. Custer. There is now living in this city a Spaniard named Garcia who is 112 years old, yet walks the streets with firm and elastic step, has a clear memory and all his faculties well preserved. Curiously enough, he was once blind, but has recovered his sight. There is no doubt about his age, for he has a certificate showing that he was baptized by a padre at Santa Barbara in 1780. Ramon Gonzales, who died at Azusa some months ago, was known to be more than 100 years old.

Mrs. Sarah Davis, an inmate of the Colusa county hospital, is 101 years of age. Probably the oldest printer in the world died at Ventura last December aged 102—Jose de la Rosa. He was sent to Monterey by President Santa Ana in 1833 with the first printing outfit brought to California, and for many years printed public documents. A Spanish lady, Mrs. da Perris, died in Los Angeles a short time ago, whose family records proved that she was born in June, 1787. Her memory was vivid until two years ago. She recollected her cousins leaving Mexico and going to Spain to fight against Napoleon, knew all about the Mexican war, and witnessed the taking of Los Angeles by Gen. Fremont. Her eldest son died three years ago at the age of 85, and her first husband has been dead 72 years. Another veteran resident of California died at Napa last winter. Mrs. Martha Higuerra Frias was born in San Francisco 104 years ago, when the city consisted of three houses. At one time she owned a large amount of land under a Mexican grant.

This by no means exhausts the list of California centenarians, as I have made no special search for them. It is true that, with one exception, those I have mentioned are of foreign birth, but that is easily accounted for. Half a century ago, Americans on this coast were few and far between. Those who afterward settled here were either in the prime of life or the hey-day of youth. Fifty years hence California will challenge the world to equal the number of her centenarians, who will be living attestations of the rejuvenating powers of this sunny shore. Give them time to grow old, my skeptics, and they will astonish you with their abilities in that line.

Young Folks' Column.

The Little Tea Set.

Written for the Rural Press by Mary E. Bamford.

A boy was walking on the rails of the track as Miss Mildred waited in the little station. She looked after him. He had brown eyes and light hair, and he made her think of a small tea set she had at home. There were four plates and four cups left. Miss Mildred kept the little things in a paper at the bottom of her leather trunk.

The blue and the red were yet gay in spots on the little dented tray that belonged to the toy tea set, and one very dented, misused sugar bowl without any lid remained, with two teapots, one lidless, also. One cup was squeezed half out of shape, as if it had been rocked on sometime, and an inch-wide plate had on the bottom a remnant of something that looked like molasses candy considerably along in years. Some of the flowers on the side and the nose of one teapot had a little color, as had the bits of wreaths on one or two of the plates. The little cups were large enough so that a person might put the end of a finger into each. Miss Mildred seldom looked at the tea set now. Once in a while when she was going through her trunk, some little cup or plate would slip out of the paper or the limp folds would fall apart and disclose the old plaything, but she did not care to have the tea set around the house.

Miss Mildred's train came while she was thinking. The boy she had noticed came and sat opposite her in the car. He certainly resembled Ben. Miss Mildred went to thinking again about the little tea set. There had been three to use it, two sisters and a boy cousin. Mildred was two years older than the others.

It was well that the little tea set was not made of anything that could break, or its existence would have been short, for there were a great many birthdays and Fourth of Julys and merry-makings when Mildred and Annie and Ben had little dinners by themselves out of doors, and a great many tiny cups of milk and water were drank after the candy and the cake were eaten. The merry-makings often ended with the children staying over night at one or the other's house, and the three would lie in their beds and tell each other stories of wonderful giants, and of Indians who came to folk's houses so that people had to run and hide under the ash-pile, and Ben was always telling a sea story of a whale that some sailors took for an island; and the next morning, before the three separated, the little tea set must be used at breakfast, if Ben was staying at Mildred and Annie's house.

The three always had very good times together. There was a hole among the bales of hay in the barn at Ben's place, and he taught Annie and Mildred to slide down it. The three, one after another, would slip away, away down till they came to the floor under the bales, where there was just room for the children to sit down on the floor and look out of the big cracks in the side of the barn and see the hens and chickens walking around outside. The air in the hole was rather overladen with the odor of hay, but cookies tasted as well there as anywhere else, and the fowls that were fed through the cracks never expressed any astonishment that food should come from beneath so many bales of hay. The passageway leading to this place was quite narrow, however, and once Mildred, who had descended alone, had so difficult a task going up again, being stuck between the bales, that she was quite alarmed.

When the three children were at the girls' house, there were the goats to be played with. The children would make the little white kid lie down and they would cover him entirely with grass. He would lie still for a time, and then suddenly he would spring up and dance while they laughed at his antics. He understood the play at last as well as they did. He played "teeter" with the children, too, standing for a very little time on one end of the board, while one of the children sat on the other end.

Bales of hay might vanish and goats might be sold, yet the little tea set retained its attractions still. For years it was a constant plaything for the three, till they came to look upon it with a queer sort of affection, as a kind of companion that had been with them during so many good times that it must not be forgotten. And so, when the three children were grown to be seventeen or eighteen or twenty, at the times when they met they not infrequently hurried the old tea set out of its place in some cranny, and put the tiny cups on the dinner table, and after the real meal was over, the three would laughingly fill three bits of cups with tea and drink the half a dozen drops in memory of old times.

One day Ben came to see Mildred and Annie unexpectedly. The girls and their mother had heard that he thought of taking a voyage. Ben brought a boy friend with him as usual, and the four gathered around the old melodeon and sang and whistled the "Mocking Bird," and "Way Down Upon the Suwanee River," and "Annie Laurie," and then the mother had supper ready, and the old tea set was brought out. They laughed and talked, but Ben looked thin and coughed often.

"I came to say good-bye," he said. "The doctor says a long sea voyage will do me more good than anything else. I want to get rid of this cough, and I'm going to start next week on a whaler for the Arctic."

"Oh, I wouldn't!" protested Annie. "Supposing something should happen to you! The whalers don't always come back, you know. Supposing you were shut in by the ice and couldn't get out! We'd feel awfully! Don't go, Ben!"

But the young man laughed, and told how another family had cried over another boy who was going too.

"His sisters say he won't come back alive," laughed Ben. "Why, it's perfect nonsense! The whalers come back every year. You see their vessels in the bay. Will and I are going to eat blubber and grow fat. I'll bring you a piece of blubber, Annie, when I come back. You can see how you like it. Lots of whalers come back all right. Don't you worry."

He had made up his mind. He would go, and the girls tried to be cheerful, thinking that perhaps their fears were indeed womanish and silly.

The three drank again out of the little cups of the tea set. The boy visitor, Tom, was graciously allowed to take the fourth little cup and drink, too, and he laughed and they all laughed, though their laughter was pretense after all.

They went back to the parlor. They sang some more, and then Ben kissed his aunt, and Annie and Mildred, and said "Good-bye."

Ben stood in the doorway, smiling back, a light-haired, brown-eyed, fresh-cheeked young fellow. The girls' mother looked at him regretfully.

"Don't forget your father's God, Ben, she said.

"No," said Ben very gravely, "I won't forget."

They all kept the tears back bravely till he had gone. They wanted Ben to start off happily.

The whaling vessel sailed the next week. One letter came back from him several weeks after he had passed out of the Golden Gate. The whaler had met a home-coming vessel and sent word by it. Ben was better, he wrote, and they expected to be home by October, as the vessel was not provisioned for winter.

The girls wrote a long letter and sent it to him. They never knew whether he received it or not.

The months went by.

"Two weeks, and maybe Ben will come," the girls said to each other.

The weeks went by.

"He may come any day, now," they all said, as the whaling vessels began to come back one by one and take winter quarters in the bay.

Two or three of the whaling vessels did not appear. People who were interested in them, or who had friends on board, began to grow anxious. There were rumors of the ice closing in earlier than usual that year. There began to appear surmises in the newspapers as to the missing whalers. There was some hope expressed that the sailors might in some way have communicated with the natives on shore, and have obtained help.

The months went by. Again it was spring, again it was summer, again it was winter. A vague rumor floated from the North of a wreck or two that had been seen drifting.

The months came and went. Consumption, which had laid hold on the boy cousin, touched the girl.

"Does Annie cough much nights?" Mildred's father asked her, and Mildred, listening in the darkness, often heard the sound.

There came long nights of coughing and weariness, long days of faintness and panting for breath. There came a day when Annie's thin, thin face lay on the pillow. Her mother bent over her, her father stood fanning her, and the mother's voice said: "Though I walk through the valley of the shadow of death, I will fear no evil, for Thou art with me.

Annie faintly nodded assent. The dear eyelids drooped.

"Perhaps you will know, sooner than we shall, what really became of Ben," the mother had said to Annie after she knew that she was going to the land where sickness never enters.

"Yes," she answered, "I shall see him. I am sure I shall see him there."

It was a few weeks after this that Mildred first wrapped the little tea set in brown paper and put the bundle away in the trunk.

Miss Mildred's train stopped at her station. The boy that she fancied looked as Ben used to, rose and went into another car. He was not interested in Miss Mildred at all. How should he know of what she was thinking?

Miss Mildred hurried away from the station. She said to herself that she would go up another street and look at that place where they used to live so long ago when Ben came to play with Annie and herself. There was a horse car running on the street now, and most of the land that Miss Mildred's father had owned had been built on, but there was one little strip yet vacant. The strip used to be part of a hay field, and Miss Mildred remembered how, in the warm summer evenings, she and Annie and Ben had slid down the piles of hay, and afterward had sat in the pleasant darkness telling each other stories. There was an old pear tree yet in the lot, and next the fence were the little scrub oaks that used to bear small brown balls that she and Annie strung.

Miss Mildred thought that one of the houses must cover the spot where she first tried to ride Ben's horse, old Henry. She remembered the awkward, ready-to-fall feeling she had when she mounted. Near by was the place where Ben's father had stood the time she tried to frighten him with a large Chinese imitation spider held by a string.

"It is so long ago, so long ago," said Miss Mildred to herself, thinking of the three children who used to play together, "I wonder if Annie and Ben ever remember me nowadays? It doesn't seem as if they *could* quite forget."

After supper that night, Miss Mildred stood at the window a while and watched the stars. She was ordinarily a very busy woman and did not usually spend time standing still and remembering. After a while she quietly wiped her eyes, and, stepping back, let the curtain fall between herself and the outside world. She smiled.

"Some time," she said to herself, "some time, through His grace, I shall see them again."

There was no *miserere* in her heart; a *Jubilate Deo* sang itself there.

—Uncle Tom (shaving) — Yo', C'loe! Fotch me some o' dat babby powder to smoof mah face.

Aunt Chloe (to her grandson)—Chile, jest han' yo' ole gran'fadder that pot o' chimbly soot.

—"Are you pretty well acquainted with your mother tongue, my boy?" asked the schoolmaster of the new scholar.

"Yes, sir," answered the lad timidly, "ma jaws me a good deal, sir."

—Mamma—How many sisters did your new playmate tell you he had?

Willis—He's got one. He tried to catch me by saying he had two half-sisters, but he'll find out I've studied fractions.

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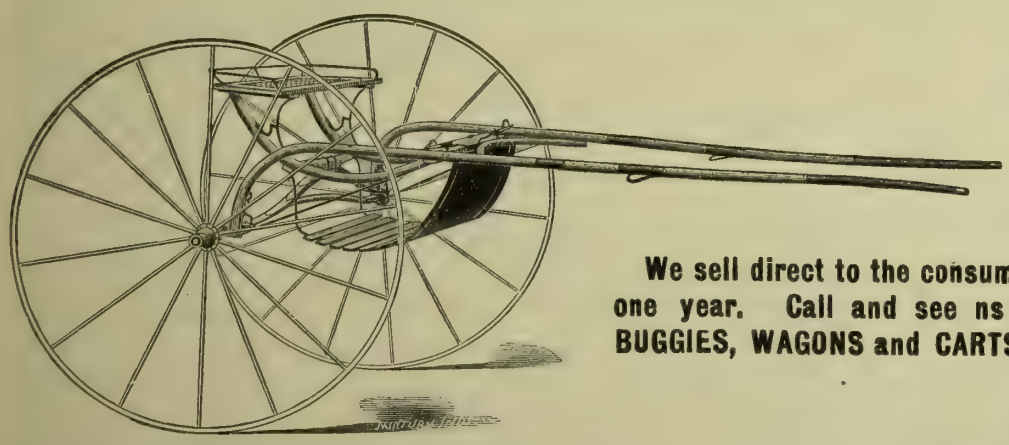

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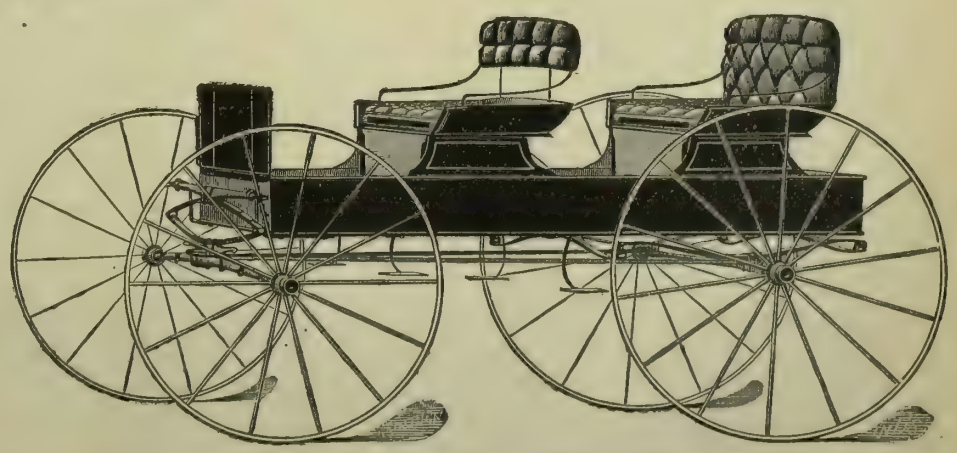

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AGRICULTURAL NOTES.

CALIFORNIA.

Fresno.

RAISIN DRIER AT MADERA.—Fresno *Republican*: W. W. Boust, superintendent of the Dorn vineyard near Madera, says that some important improvements are now being made on the property of the Madera Improvement Co. of which D. S. Dorn of San Francisco is manager and president. Preparations are now being made to erect on this vineyard an improved Blatchy raisin drier to handle the second crop of the vineyards of that locality. It will have a capacity of 60 tons of grapes. Work will also be commenced to-morrow on a new packing house, the dimensions of which will be 50x60 feet, with a sweat-room 25x30. It will be supplied with all the latest machinery, including a Porteous steamer and grader, label presses, etc. It will be conveniently arranged for doing work expeditiously and in first-class shape.

Los Angeles.

THE PRUNE CROP.—Pomona *Progress*: The Pomona fruit growers have been offered $50 a ton for their prune crop, delivered at the fruit-drying and canning establishments in this place. This is the second season in two years that prunes have gone to $50 on the trees. In 1890 there were some growers, who did not make contracts for their prunes until late in the season, and got $60 a ton. In 1888 prunes went to $40 a ton, and in 1886 they went to $50 and $55 a ton, but in each of the last-named years the orchards here were so young that the yield was small. In 1890 we had an overwhelming crop of prunes and very high prices. The present prospect for prunes in Pomona valley is two-thirds of a full yield. Up to a few weeks ago it was thought we would have a full crop of prunes, but there has been so much of a dropping off of the fruit that the estimates have been reduced. The crop will be ready for delivering in about three weeks and, as the prunes ripen slowly, the trees will not be cleared of their yield for six weeks after that.

Monterey.

GRAIN CROP.—Watsonville *Pajaronian:* The threshing season is not going to be a long one in the Pajaro valley this year. Young orchards and the beet crop have cut down the grain acreage in the Pajaro from the old-time figures. The yield is good and threshers state that the returns per acre are averaging better than last year. The Salinas *Journal* says: The harvest season, including cutting and threshing, will be much shorter than was expected in this locality; not that the crops are so much shorter than other years, but because of the increased facilities for handling them. So far as yet threshed and sacked, most of the grain from Chualar to this city, and from here on to Moss Landing, is turning out fully as well as expected, although the crop is considerably short of that of last year, when the yield was extraordinarily good. The crops in this locality are fully up to the average, if we take the last ten years as our criterion for basing our estimate upon.

FRUIT NOTES.—*Pajaronian:* The peaches and apricots being brought into the local market are of unusually good quality. A load of fruit of these varieties from the Majors' place, Hazel Dell district, was brought into town the other day that was of gilt-edged quality and would have found ready sale at the San Jose canneries. Packers state that they have examined much of the apricot crop of the Santa Clara valley this year, and that they have not found any fruit there as good as that raised on the San Juan road, in and near the Carneros district. And yet but a few years ago it was said that the Pajaro valley could not raise good apricots. The care was not taken with the fruit then that is now manifested in its cultivation, and the varieties have been found that will do well here.

SUGAR BEET CROP.—*Pajaronian*: The beet crop continues to look gilt-edged. The season has been most favorable for this crop. The percentage of loss on the acreage seeded is much less than it has been at any time in the past.

Orange.

FARM NOTES AROUND CENTRALIA.—Cor. Downey *Champion:* The corn crop in Orange county will be very light. Centralia, however, is more favored than the other parts of the county, despite the fact that we have no irrigation system. The apricot yield in this county this season is the heaviest known in years. There are over 600 people engaged in drying apricots, night and day, and from present indications, that number will continue for several weeks more. Most of our people are shipping their apricots into Anaheim to the San Valin fruit drier. In that drier alone, over 100 hands are employed night and day.

CONDENSED MILK FACTORY.—Centralia Cor. Downey *Champion:* The condensed milk factory at Buena Park, near this place, is running in full force, and shipping condensed milk and coffee every day to the four corners of the earth, which shows that true merit is always appreciated. The company, for several years, has been running at a heavy loss, but the enterprise is on its feet again and the stockholders are in a fair way to make their fortunes out of the concern.

San Benito.

IRRIGATED FRUIT.—Hollister *Advance*: The benefits of irrigation can now be readily seen in the various fruit orchards. Where the land was not irrigated, the fruit is going back, dropping from the trees. Upon irrigated land the trees look healthy and bright, the fruit hanging firm and sound. Mr. Bowman, lessee of the Donovan orchard, is authority for the statement that the irrigation of the land this season is worth $2000 to him.

San Bernardino.

THE OLDEST VINEYARD IN SOUTHERN PART OF THE STATE.—Ontario *Observer*: The Cucamonga vineyard of 340 acres, of which J. C. Sommer has charge, is perhaps the oldest in Southern California. Sixty years ago Spaniards crushed into wine, grapes grown in this vineyard. Though the oldest vines were extirpated two years ago, there are now in the vineyard 50 acres of vines which are 40 years old. At the winery 125,000 gallons of wine and brandy are made annually. Cucamonga wine is of superior quality and is known wherever domestic wines are used. Last week two carloads were shipped east.

A LARGE SILO.—Chino *Champion*: Richard Gird is making excavations for a silo just south of his cattle yards on Central avenue, in which to preserve beet pulp for winter use. The silo will be 500 feet long, 60 feet wide and 9 feet deep, and its capacity will be 10,000 tons of pulp. Beet pulp is easily preserved and makes the best kind of feed for beef cattle or milch cows. Pulp-fed beef used here last fall and winter was as tender and juicy as any Eastern stall-fed, and milch cows fed upon it gave the most satisfactory results. No artificial floor or covering is used for the silo, as the outer layer of pulp forms an impervious coating which excludes the air and very effectually preserves the mass.

San Diego.

EXPLANATION WANTED. — Escondido *Times*: There are some nine-year-old soft shell almond trees on the Trussell ranch in San Pasqual; they have attained a large size and have a vigorous, rampant growth, but are very shy bearers. They are on dark, rich soil and the roots must be very near if not reaching the water. In common with the rest of the trees, they have been irrigated during the early part of the season. What is the trouble? Close to the almonds are some olive trees that have made a magnificent growth, and are very heavily loaded with fruit. It has always been supposed that the olive was best adapted to a high, dry soil. Will some one from practical experience explain.

Santa Barbara.

NO FRUIT GROWER CAN AFFORD TO GROW INFERIOR FRUIT. — Santa Maria *Times:* One grower says that if the cannery cannot take all of his fruit, he will not let them have any of it. Another says that if they are going to sort out all the undersize and inferior fruit and make him haul it back home, he will keep it all at home. Some of our growers who have given the subject a little study are endeavoring to deliver to the cannery only such fruit as is desired. The fact is, no one can afford to grow fruit which is not desirable. Each different market requires a certain kind and quality of fruit, and any other kind handled by them must be at a loss to some one, consequently growers must cater to the wants of the market or suffer the consequences. The remark most frequently heard is, "If I have to fix up to dry part of my fruit, I can just as well dry all of it," which, in one sense, is true, but if you have a lot of inferior fruit and mix it with the good, the grade of the whole lot will be lowered to at least so nearly the cost of production that the profit is hard to find after the season's business is settled up. If growers would bear in mind that it pays to grow first quality fruit, and that it does not pay to grow inferior fruit, it would help them to grow a better crop. It has been suggested that the cannery should arrange to dry and evaporate fruit so that it could take all that is offered—a very good suggestion, and will no doubt be done in the near future, but that should be no inducement to growers to produce poor fruit. The biggest profits are in the best goods, whether canned, sun-dried, evaporated or sold green, and in order to make a success of the drying business, it will be necessary to have good fruit to commence with. The evaporator will be a big help; it will make expenses out of the inferior fruit by turning out a high grade from which to get a profit, and thus furnish a market for the whole crop.

Santa Clara.

CAMPBELL FRUIT NOTES.—S. J. *Mercury*: The cannery is still running away into the night. Apricots will be out of the way in a few days, but peaches are coming on quite rapidly, and prunes are coloring somewhat. Sixty-two dollars per ton has been offered for good prunes, and rumor places the price at $70. This price seems at first sight inflated, but first-class prunes will probably sell at 12½ cents per pound, which will give a good margin for drying. Of course, the lower grades would not be accepted at such a price.

TO CORNER THE GRAPE CROP.—Cupertino Cor. S. J. *Mercury:* The report concerning the attempt to corner the entire grape crop of this county is gaining currency as the days pass. Our once mysterious distillery, now the property of Alex. Montgomery and John P. Bubb, will commence operation in about a week to turn the wine now on hand (or, in other words, held in the various cellars) into brandy, so as to make room for the new crop. It is the intention of the winemen to turn a portion of this year's crop into brandy also, and in that manner relieve the market of overproduction, that seeming to be generally conceded now to be the cause of the present depression in prices. This, taken together with the shortness of crop this year, ought to materially advance prices the coming season. And that the crop is short no one can any longer doubt, for even in this much favored section, the unusual cold weather that prevailed this spring has shortened the crop over one-fourth, and in the center of the valley the falling off in quantity will figure up over one-half. The shortness of crop, taken together with the amount they intend to turn into brandy, will enable the cellars in this side of the valley to make up all that is grown, thus effectually cornering the output. The brandy will be put in bond, where 30 cents a gallon can be raised on it if necessary, and it will be left there for its entire period, thus practically taking that quantity of wine from the market for three years. The San Jose *Herald* says: The wine makers of the Cupertino district held a very interesting meeting on July 27th. A thorough discussion relative to the condition of the wine market and the prospective grape crop was held, and an effort will be made to store the present stock of wines in warehouses, and increase the capacity of the various wineries in the neighborhood to handle the prospective heavy crop of grapes. A bank, in the interest of grape growers and wine makers exclusively, is to be established very shortly. The Cupertino winemen will be present in a body at the Viticultural Convention to be held in this city the second Saturday in August.

Sonoma.

GRAPE-DRYING.—Healdsburg *Enterprise:* J. R. Hotchkiss says: The outlook for the 1892 grape crop of the Healdsburg district is not discouraging. The yield for the State at large is very short, and the demand has grown a little during the year. Those two facts ought to give prices a bit of a lift. But the local situation will be made somewhat better by still another cause, for I intend to go into the grape-drying business again. Hunt Brothers lost heavily on grape-drying last year because of rain-storms, and I dare say the wine makers have been feeling happy over the belief that no one would risk anything in the drying trade very soon again; but, as Bobby Burns says, "The best laid plans of mice and men gang aft aglee." How many tons do I intend to handle? Well, at least 1000, and there's no telling just how much more. I'll take enough grapes on the drying trays, at all events, to send prices to somewhat like a reasonable level.

HIGHER PRICES FOR DRIED GRAPES.—Healdsburg *Tribune*: The boom in the fruit market has removed the depression in the price of grapes also, and this week there were dried grape buyers here from San Francisco purchasing all that was left unsold last year and contracting with several growers for their production this year. That dried grapes a month ago would bring no more than 1¼ cents and now sell at three cents demonstrates the fact that there is a lively boom existing, and it is predicted that it will continue to the close of the year at least.

Sutter.

LARGE HAY CROP.—Yuba City *Independent*: Sutter is not usually regarded as a hay-producing county, but there are now several thousand tons for sale in the stack besides the large quantities sold in the fields. In the hay-producing districts in Yuba and Butte counties the amount on hand is simply wonderful, and it is said that near Williams, Colusa county, 20,000 tons may be seen. Most of the livery stables have contracted for their hay, and as many private barns are filled, it is a matter of speculation what will be done with the surplus. Much will likely be shipped below and the balance baled and stored. Little hay will probably be raised next year on account of the present overstock and the fact that most of the hay-ground will be summer-fallowed next spring. The alfalfa crop is also unusually good. Much has been hauled into town during the last week or two, and has been sold at $6 per ton. Oat and wheat hay is worth about $7 delivered. It can be bought in the stack a few miles from town at $5. On the approach of the rains, hay is likely to be still cheaper, as the quantity is greater than will be the demand or the facilities for storing it.

Tehama.

A BIG WHEAT SALE.—Red Bluff *News*: H. Kraft, a few days ago, purchased C. B. Ashurst's crop of wheat on the Eastman place, paying $1.25 per cental delivered on the Sacramento river bank. About 7000 acres are cultivated on the ranch, although the full acreage is not tilled every year. Mr. Ashurst expects to sell Mr. Kraft some 25,000 sacks. The grain is of the Snowflake variety, and Mr. Kraft says it is the best he has seen this year.

ASSESSMENT RETURN.—Red Bluff *People's Cause:* Number of acres sowed for crop in 1892: Wheat, 60,841; oats, 3138; barley, 15,594; corn, 819; hay, 17,912. Number of acres of grape vines growing: For table, 310; raisins, 607; wine, 2914. Number of fruit trees growing, in bearing: Apple, 2784; apricot, 24,108; cherry, 2449; fig, 2514; olive, 99; peach, 190,483; pear, 15,842; prune (French), 21,416; prune (other kinds), 8008; lemon, 10; orange, 187; almond, 4475; walnut, 314. Fruit trees not bearing: Apple, 3447; apricot, 17,312; cherry, 2884; fig, 9511; olive, 6992; peach, 47,815; pear, 23,914; prune (French), 33,711; prune (other kinds), 8008; lemon, 179; orange, 1249; almond, 24,181; walnut, 1543.

ARIZONA.

GRAPE SHIPMENT FROM SALT RIVER VALLEY. Phœnix *Herald:* Two more carloads of grapes went out from Tempe July 27th, and yet the good work of shipping out fresh valley fruits goes on. It looks as though all the raisin grapes will be shipped out in a fresh condition this year. Other portions of the Territory to the south are taking considerable quantities.

OREGON.

HOP LOUSE EXTERMINATOR.—Eugene *Register:* Two correspondents of the Oregon Experiment Station report that a decoction of bearberry bark with soap makes a very effective spray against the hop louse. As it is said to be quite plentiful, a cheap solution can be obtained from it. One of the correspondents says of it: "The bearberry solution kills every louse. It is the black alder which grows on low swamp lands in Washington and Oregon. In the fall one finds a black berry on it about the size of a wild cherry, of which the bear is very fond. It is a great purgative medicine, is very bitter, and the bark is shipped by carloads to the East, where medicine is made from it."

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FURNISHES you prompt and accurate information by mail, telephone or telegraph, regarding the market value of any article of produce you may have for sale, often saving to its members on a single transaction several times the cost of membership.

FURNISHES you information regarding the commercial status and business integrity of the various houses with which you deal or may desire to deal.

Write for printed matter to

THE FARMERS'

Protective Bureau,

Chronicle Building, San Francisco,

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Importers, Manufacturers, Dealers in, and Largest Distributers of General Family Supplies. In large or small lots, at lowest prices, direct to consumers. Best value for value; no charge for cartage; no charge for boxing. Ask for Price List. 416-418 Front Street and 16-18 Cedar Street, San Francisco.

For reliable clothing at the right price we take first place, and shall strive to keep it.

Suits cut and made to order from $12.50 up.

Men's Pants, wool, cassimer, $2, $2.50 and $3. Good to wear and handsome—no cast-off styles.

Is a popular price for a suit of men's clothing for Sunday or knock-about wear.

We have it in gray, mixed, or pepper-and-salt style—in dark blue, in California cassimere, plaids and stripes. These goods are right and the prices are right.

Do not pay $13.95, or any other big, odd price for a $5 suit, because its funny and looks cheap.

We have the $5 suits at $5, $6 suits at $6, and $7.50 suits also.

Don't pay $22.65 or $21.99 for $12 suits and get a 15 cent necktie or a pair of suspenders thrown in.

Boys' fine linen Coats and Ulsters, worth $1.50 to $2. Closing lots, 4 to 11, at 25c; 12 to 19, at 35c.

We appreciate the confidence and custom of the buying public, and shall strive to keep it by fair and just dealing.

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Visitors always welcome.

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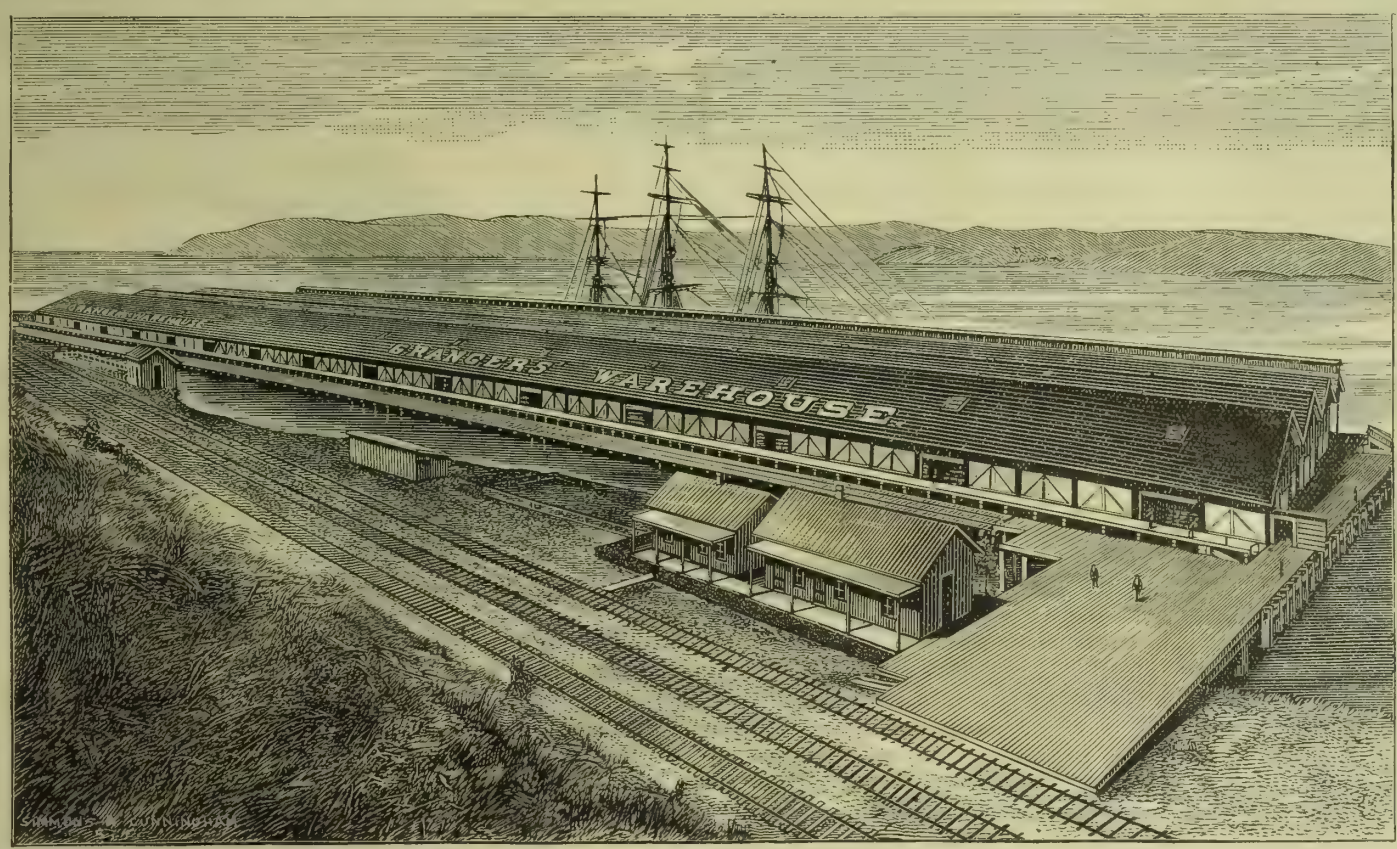
CAPACITY OF WAREHOUSE, - - - 50,000 TONS.



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Steel Wire **CROSS HEAD** Bale Ties?

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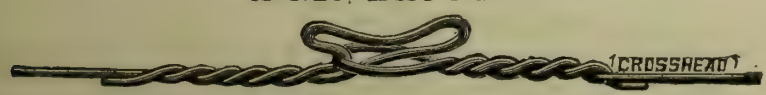

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CAPACITY: 1500 Bbls. A DAY.

Try our Brand of Flour. Makes Light, Sweet Bread.

Farmers' Union & Milling Co.,

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THE JONES 5-TON WAGON SCALE.

Price $66, Delivered Anywhere in the United States.

These Scales have STEEL BEARINGS, Not Wood—BEAR THIS IN MIND.

From 25 to 50 per cent cheaper than any other Scales of like quality. All sizes and kinds of Scales always in stock.

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Patrons of Husbandry.

The Secretary's Column.

By A. T. Dewey, Secretary State Grange of California.

INVESTMENT AND LOAN ASSOCIATION RECOMMENDED.

The following important proposal by the Master of the National Grange should receive due attention:

DELTA, O., July 20, 1892.

The usual committees have been appointed to serve at the next session of the N tional Grange. P. of H , to be held in Concord, N. H. Some of the subjects to be considered will require much thought and investigation, and the announcements are made at this time to afford ample opportunity for full thought and investigation by the committees having such matters in charge. I have assumed that the special committee appointed to consider all matters relating to National Finance would be continued, and have therefore appointed members of said committee.

It has occurred to me that an Investment and Loan Association can be formed within our Order, which may render an important service to those who desire to make safe investments at reasonable rates of interest, and also to those who must, for some years to come, be borrowers.

The Building and Loan Associations in cities and villages are great blessings to those who desire to secure homes and have not the means to do so. These Associations also furnish safe investment for the savings of all who have money to loan.

I believe it is feasible to adapt this system to the needs of the farmer who would like to secure or save a home for himself and family, and I have therefore appointed a committee to consider this subject, examine the methods of such Associations and report results to the next session of the National Grange.

I am thoroughly convinced that it is possible for farmers to "help themselves" along this line. I have appointed an indefatigable worker as Chairman, with an able corps of assistants, and have also named an Advisory Committee to confer with the regular committee.

I am aware of the fact that we have many good thinkers in our ranks who have not been named as members of either committee, but they are invited and urged to send to the Chairman of this Committee (Geo. A. Bowen, Woodstock, Conn.) any suggestions in regard to the subject that they would like the committee to consider. We expect to make the enterprise a success—a help for those who need help and a feature of our Order which will commend it to the farmers who wish something practicable from an organization.

I appeal to every member of these committees and every member of our Order to do their utmost to make the next session of the National Grange the most important and useful gathering of farmers that ever assembled in this or any other country. J. H. Brigham, Master National Grange.

N. G. COMMITTEES.

Special Committee on National Finances—S. L. Wilson, Chairman; Thos. Mars, J. M. Thompson, A. Messer, J. C. Higgins.

Special Committee P. of H. Investment and Loan Association—Geo. A. Bowen, Chairman; E. W. Davis, O. E. Hall, J. D. Clardy, W. C. Gifford, J. B. Long, Aaron Jones, N. J. Bachelder, A. P. Reardon.

Advisory Committee to above—F. M. McDowell, Chairman; Leonard Rhone, C. G. Luce, James Draper, Fred Robie, J. J. Woodman, X. X. Chartters.

For want of space, we give only the name of the Chairman of the following committees: Women's Work—Mrs. L. A. Hawkins; Credentials—C. H. Knott; Order of Business—D. L. Russell; Division of Labor—Ava E. Page; Publication—G. A. Bowen; Claims and Grievances—A. P. Reardon; Dormant Granges—J. M. Thompson; Accounts—H. M. Murray; Mileage and Per Diem—M. B. Hunt; Finance—Jno. C. Higgins; Digest—A. M. Belcher; Ritual—John Statesir; Constitution and By-laws—J. D. Clardy; Cooperation—Hiram Hawkins; Resolutions, Thos. Mars; Good of the Order, S. H. Ellis; Foreign Relations—W. R. Williams; Education—Alpha Messer; Transportation—W. C. Gifford; Agriculture—John B. Long.

E. W. Davis is also on following committees: Publication, Ritual; Mrs. Davis, Foreign Relations, Mileage, etc.; R. P. Boise (of Oregon), Constitution and By-laws, Good of the Order; Mrs. Boise, Education; Mrs. D. L. Russell (Washington), Women's Work, Claims and Grievances.

Amendments, Resolutions, Etc. — All proposed amendments to the Constitution of the State Grange must be forwarded to the Secretary in time for submitting the same to each subordinate Grange about the 1st of September, in order that they may be legally acted upon at the coming session. We further suggest that Patrons desiring to bring resolutions, or subjects for discussion, before the State gathering, soon furnish the same for publication and the attention of subordinate Granges, that the minds of members shall be better prepared for exchanging views on the same.

PATRONS' RELIEF ASSOCIATION OF CALIFORNIA.

This Association, established by act of the last session of the State Grange, (and later its organization recommended by the Executive Committee,) has been so well patronized by Patrons of Eden and Temescal Granges that if all other Granges were to supply proportionately one-half as many members to the new organization it could not otherwise than prove a success. While some members of other Granges have expressed their favor to the P. R. A., with promises to secure applicants from their own districts, returns have not yet come in.

The Directors of this Association have used earnest effort to create one of the very best auxiliaries for the benefit of the Order, and it seems to us that greater efforts are due the worthy enterprise from other Patrons, and it is to be hoped that before the State Grange meets a membership will be secured sufficient to make the Association, with the benefits it offers, one of the standard inducements for others to join the Order and continue within its gates. How many Granges will make an effort within the next 60 days to secure at least ten applicants, so as to be entitled to a local Director, by the time the State Grange meets? Give the matter a trial and, if possible, bring in new sheaves, as a result of your labors, to the State Grange.

Let the Secretary, or some other member, bring the subject before each Grange and secure at least one applicant. The Constitution of the P. R. A. is printed in the Annual Proceedings for 1891. A number of copies, with blank applications, were also mailed to each Secretary some months ago. For further information, address S. Goodenough, Secretary, 1414 Myrtle street, Oakland.

J. J. Woodman, Past Master of the N. G., has been nominated for Congress in Michigan by the dominant party in his district.

Petaluma.—Secretary D. G. Heald writes: Our Grange starts out with a strong membership. We have six new applications. We meet on the second and fourth Saturdays at 1:30 P. M.

Bro. John Trimble, Secretary N. G., has been for a few days with his wife at Atlantic City, where she has been dangerously ill. We are glad to learn from Bro. T. that she is improving, and he hopes soon to return to Washington. This will account for any possible delay of business in his office, the Secretary being proverbially prompt.

Stockton Grange.—We learn from Sister W. D. Ashley that this Grange is quite prosperous. A class of six young ladies, including the Master's daughter, were lately instructed in the first degrees. We are indebted to Sister Ashley for many generous and kindly fraternal acts.

Coming to Oakland.—V. M. Still, District Lecturer, writes from Auburn for Grange Trade Card lists, and states that he expects ere long to remove to Oakland. Therefore, a good addition to Temescal Grange is expected. He adds that Magnolia Grange is prospering nicely.

Bro. Thos. McConnell writes that Elk Grove Grange saved its organ from the recent fire, but they now have to buy new badges and other Grange material.

Many friends of Mrs. Julius Chester will learn with sorrow of her recent death at Alameda. She was a member of Eden Grange and for years a sufferer from painful illness.

HISTORICAL EXHIBIT.

Bro Lubin, Chairman of the Historical Exhibit of the State Agricultural Association, has invited the State Grange to make an historical exhibit at the coming fair. We think it is an excellent opportunity for the State Grange to be permanently and favorably represented before numerous visitors from this and other States to the Agricultural Pavilion at Sacramento. It would make manifest the progress of the Grange since the date of its organization in this State in 1873, and its characteristic and permanent features among the leading State institutions of California. Portraits of the first officers of the Grange, antique documents and characteristic emblems of office in the fraternity, etc., will be among the articles desirable for exhibition.

We would call upon the Lecturer of the State Grange and Committee on Women's Work to lead in the enterprise of making an exhibit creditable to the Order. We ask both the officers and members of State and subordinate Granges to make suggestions to this department of any features they would deem of interest in connection with the proposed exhibit. Who has emblematic or characteristic articles that they can contribute? Act at once; there is no time to lose. Let us have a good exhibit or none.

AGAINST GAMBLING IN FARM PRODUCTS.

The Anti-Option bill, which passed the House in June, was discussed last week in the U. S. Senate. July 24th, Senator C. M. Felton telegraphed to a S. F. friend as follows: "Do the Grangers and farmers desire the passage of the Anti-Option bill? Have they considered its effects, and do they believe it would promote their interests?" etc. He also stated that he would willingly represent their views. The following telegram was furnished Mr. Fulton's representative:

"San Francisco, July 25, 1892.

The Executive Committee of the State Grange in February last endorsed the petition recommended by the National Grange for the passage of the Anti-Option bill. John Trimble, Sec'y of the National Grange, 514 F St., doubtless has petitions from California. Further by mail."

The Sec'y of the State Grange by letter to Senator Felton repeated the above information, inclosing copy of the petition mentioned and other printed matter showing the position of the Grange on the subject of gambling in farm products, with the statement that numbers of our subordinate Granges had doubtless forwarded petitions signed by their members to the Legislative Committee of the National Grange in care of Sec'y Trimble; also copies of other petitions endorsed by the Executive Committee and forwarded in February last to the subordinate Granges for their consideration and endorsement, in favor of legislation "for the encouragement of Silk Culture," "Free Delivery of Rural Mails," "Pure Lard" and "Pure Food." We hope to hear of Senator Felton's activity in securing the passage of the Anti-Option bill and of its final passage by the Senate.

INSURE YOUR DWELLINGS, BARNS AND GRAIN

WITH THE STAUNCH OLD

FIREMANS FUND

CAPITAL $1,000,000. ASSETS $3,000 000.

A PROMPT, PROGRESSIVE, PROSPEROUS COMPANY.

Farmers SHOULD INSURE! AND Farmers Should KNOW THAT

In the dry climate of California there is great danger from Fire: that the loss of a barn and contents, or dwelling and contents, without Insurance, often seriously embarasses you.

INSURE IN THE OLD PHENIX of BROOKLYN.

PHENIX OF BROOKLYN.

ASSETS - - - $5,773,550
LOSSES PAID - - $41,900,000

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General Agents Pacific Coast,
508 California Street,
SAN FRANCISCO, CAL.

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FREE Trial. Why suffer from the bad effects of the La Grippe, Lame Back, Kidney and Liver disease, Rheumatism, Indigestion, Dyspepsia, any kind of weakness, or other diseases, when Electricity will cure you and keep you in health. (Headache cured in one minute.) To prove this I will send to any one on trial DR. JUDD'S ELECTRIC BELT free. Prices, $3, $6, $10, and $15, if satisfied. Also Electric Trusses and Box Batteries. Costs nothing to try them. Can be regulated to suit, and guaranteed to last for years. A Belt and Battery combined, and produces sufficient Electricity to shock. Free Medical advice. Write to-day. Give waist measure, price and full particulars.

Agents Wanted. Address DR. JUDD, Detroit, Mich.

FOR $19.00

We can send you one of our

SPECIALTY SINGLE BUGGY HARNESS,

Which is the result of years of figuring to make the best harness ever known for the money. It is made from oak stock, hand stitched and finished by skillful mechanics, handsome full nickel or Davis hard rubber trimmings.

Just the Harness for an Elegant Turnout.

They sell here for $25.00, and harness not as good is often sold for $35.00 in retail shops. If harness is not as represented, money will be refunded.

Liebold Harness Co.

110 McAllister St., San Francisco.

Collar and Hames, instead of Breast Collar, $2 00 extra.

Please state if you want single strap Harness, or folded style Harness, with traces double throughout.

NOTICE.

Regular AUCTION SALES of

Green Fruit, Vegetables & Produce of all kinds

Will Take Place EVERY DAY at Jackson Street Wharf, and at the Store,

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WELL SUPPLIES All Kinds, Water, Gas, Oil, Mining, Ditching, Pumping, Wind & Steam Mach'y. Encyclopedia 25c. The American Well Works, Aurora, Ill. 11-13 S. Canal St., CHICAGO, ILL. Main Street, DALLAS TEXAS. Branch Houses.

ALAMEDA STEEL WIND MILL.

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Cheaper than any First-Class Mill in the market.

Every One Guaranteed.

No bearings, no springs, no wheels to get out of order. The simplest mill in the world.

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— THE — HALSTED INCUBATOR COMPANY, 1312 Myrtle Street, Oakland Cal. Send Stamp for Circular

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Home Mutual Insurance Company,

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NET SURPLUS over everything	573 921 16

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WILD FLOWER STOCK FARM, Fresno Co. A. Heilbron & Bro., Props., Sac. Breeders of thoroughbred strains and Cruikshank Shorthorns; also Registered Herefords; a fine lot of young bulls in each herd for sale.

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BREEDERS SHOULD SEND a stamp for our new illustrated catalogue of Wool Growers' Supplies and a free copy of the only illustrated Sheep and Wool Journal published. We sell Shepherds' Crooks, Shears, Dockers, Sacks, Twine, Wool Boxes, Bells, Marks and a hundred other articles needed by every sheep owner. Send to-day. C. S. BURCH & CO., 178 Michigan Street, Chicago

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☞ The Stock will all be at Salesyard a few days before the sale for examination.

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Walnut Grove Herd OF Poland China Hogs

JOSEPH MELVIN,

Proprietor,

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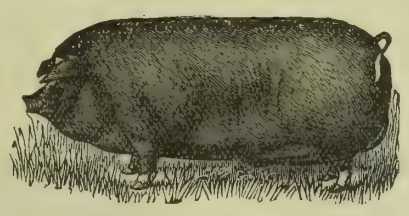

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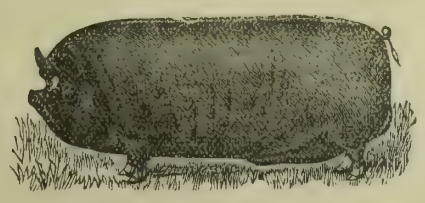
At the head of the herd stands PERFECTION KING, No. 7579; KING OF THE WEST, No. 8921; HOOSIER BOY 2d, No. 8923. Breeding Sows as fine individuals and as strictly bred as any in the land; also recorded in the C. P. C. R. record with pedigrees full to standard. Breeders for sale at all times. I have first-class Pigs of both sexes at reasonable prices. Residence 1½ miles northeast of Davisville, Cal. Personal inspection solicited. All inquiries promptly answered. Yours truly, JOSEPH MELVIN.



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FIVE FIRST PREMIUMS IN 1891.

PIGS OF ALL AGES FOR SALE.

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MANHATTAN STOCK FOOD.

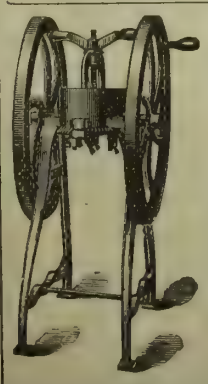
RED BALL BRAND.

Genuine only with RED BALL brand.

Recommended by Goldsmith, Marvin, Gamble, Wells, Fargo & Co., etc., etc.

It keeps Horses and Cattle healthy. For milch cows; it increases and enriches their milk.

623 Howard St., San Francisco, Cal.



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FOR POULTRY FOOD.

Patented June 15, 1886; August 20, 1889. Canada Patent, June 12, 1890.

WE WARRANT this machine to cut Dry or Green Bones, meat, gristle and all, by Hand Power, without clog or difficulty, or MONEY REFUNDED.

GREEN CUT BONE WILL DOUBLE THE NUMBER OF EGGS, will make them 25 per cent more fertile, and increase the vigor of the whole flock. COST OF FEEDING MATERIALLY LESSENED.

These Cutters are endorsed by all the leading California poultrymen. Send for a Catalogue describing all sizes of Cutters and containing vaulable information in relation to feeding green cut bones.

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We have about 150 Head of Imported and Graded Stock, all Deep Red Color.

Full Blood and Graded, of both sexes, for sale. Address all communications on cattle to

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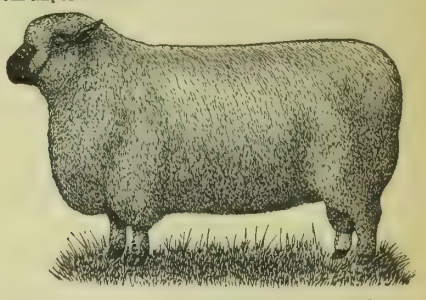

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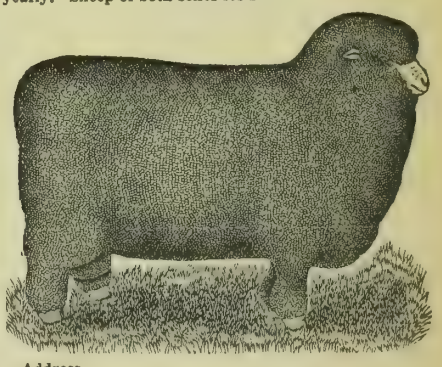

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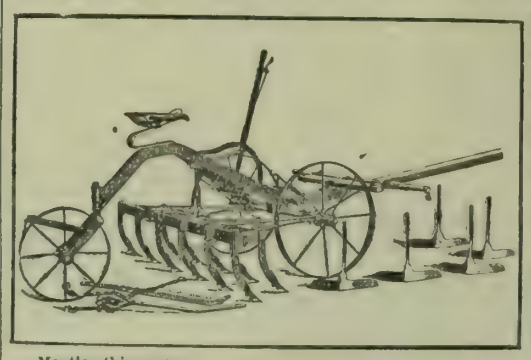

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S. F. Market Report

Market Review.

San Francisco, Aug. 3, 1892.

For the week under review the produce market held to fairly strong prices, with the tendency to still better figures for some lines. As yet, the weather in the more northern of the Central States and also abroad, is a large factor in the wheat market, with a very strong probability that the cholera in Russia will play an important part. At last telegraphic advices it was spreading in that country, which will undoubtedly cause Germany, France, England and other European countries to adopt strong quarantine laws, in which event it is not at all unlikely but the importation of cereals from Russia will be prohibited. While, in the light of scientific researches, cholera has lost much of the fear in which it was formerly held, yet it is still felt in sufficient dread to cause a rigid quarantine, since it has been found to be contagious. From the most reliable sources of information we feel warranted in asserting that the world's wheat crop this year will be short of the outturn in 1891, but that the rye crop, although not a full average, will be larger, while the corn crop will fall very considerably short. Barley has strengthened, with a higher range of values toward the close. This was to have been expected, for prices had been run down too low, when it is considered that in Oregon and Washington the crop is short, while at the East and also in Europe the yield is not proving to be an average. Oats have been marked up in sympathy with the advance in barley, light receipts and a continued good demand. White corn made quite an advance, owing to short supplies, light crop prospects and a good demand from Mexico; but yellow corn has barely held steady. Rye, after weakening slightly, is again showing signs of strength under a fair inquiry for export. Ground feed is enjoying a steadily enlarging demand. Hay has come in quite freely, but as the largest proportion is of poor quality the more choice grades have held to firm prices, while the other grades shaded off. In dairy produce the market held strong for gilt-edged dairy and creamery butter, but the attempts to get still higher figures have, so far, proven futile, owing to the trade turning to other grades. Cooler weather at the East will induce shipments to this coast. Mild, gilt-edged cheese has been fairly strong, but other grades have been slow and largely in buyers' favor, particularly the poorer kinds. There is too much adulterated cheese pressing the market. Eggs continue to have a wide range. Shaky eggs have sold very low, while extra sizes of uniform white color and strictly fresh laid from near-by points sold, toward the close, above our outside quotations. More Eastern eggs are on the way. In garden stuff, tomatoes, cucumbers and green corn have sold at lower figures, but other garden stuff was fairly steady. Onions have been been weak. Potatoes sold lower, but at the close they are stronger under an improved demand from the South. Of course the call for shipment only covers well matured of good quality, poor keepers not being wanted. Poultry held to remarkably steady prices up to Monday, when, under a better demand, the more choice stock strengthened, resulting in an advance on yesterday. Live stock is weaker, with supplies liberal and the demand only fair. Honey is scarce and wanted, with a slight advance established. Hay product has held to firm but steady prices. New crop mustard seed is putting in an appearance; indications point to good prices throughout the season. Hops are reported firmer under unfavorable crop advices from the East and also from abroad. Wool is hard to report, owing to conflicting advices, but the general tenor points to low prices for poor and defective fall wools but unchanged prices for the more choice grades. In fruit, the market has held quite steady for berries, but for tree fruit suitable for canning, better prices ruled, particularly in apricots, peaches and pears, with, toward the close, a strengthening in other kinds. Apples begin to show more life, with slightly better prices paid at the close. The market is witnessing stronger competition between buyers than ever before. The demand is from canners, driers, local traders and Eastern shippers. Prunes continued to hold very strong, with sales reported to have been been made in Santa Clara county as high as $70 (3½ cts. ℔ lb.) per ton for a straight parcel of good size and choice in quality. Canned fruits have been steadily advancing at the East, which admits of canners paying the advance for green fruit. Dried fruit of all kinds is higher and in active request. As yet, the movement is largely of a speculative character. It is claimed that, at the advance, large, shrewd operators are selling, preferring to let others make all that remains, rather than take chances themselves. Confirmed reports of a short prune crop abroad are a favorable factor in the market for that fruit. Raisins and dried grapes are very strong for future delivery. All the old stock on this Coast and at the East has been cleaned up, and will go into consumption before the new crop comes on the market.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	Aug.	Sept.	Oct.	Nov.
Thursday	6s0⅞d	6s0⅞d	6s0⅞d	6s0⅞d
Friday	6s0⅞d	6s0⅞d	6s0⅞d	6s0⅞d
Saturday	6s0⅞d	6s0⅞d	6s0⅞d	6s0⅞d
Monday	.....	.....	.....	.....
Tuesday	6s06¾d	6s06¾d	6s0⅞d	6s0⅞d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market for P. S.	Weather.
Thursday	34s6d	34s6d	34s3d	Qu et.	Favorable.
Friday	34s3d	34s3d	34s d	Quieter.	Warm.
Saturday	34s3d	34s3d	34s d	Quiet.	Unsettled.
Monday	....	....	....		
Tuesday	34s3d	34s3d	33s d	Steady.	Unsettled.

To-day s cablegram is as follows:

Liverpool, August 3.—Wheat—Moderate demand. California spot lots, 7s; off coast, 34s 3d; just shipped, 34s 3d; nearly due, 34s; cargoes off coa t, steady; on passage, firmly held; Mark Lane Wheat; quiet but steady; French country markets, quiet; weather in England, mil l.

New York.

The following shows the closing prices of wheat for the past week:

Day.	Aug.	Sept.	Oct.	Dec.
Thursday	138¾	140	....	146⅝
Friday	137¾	139	....	145⅝
Saturday	137¾	139⅝	....	146
Monday	138¼	139¾	....	146¼
Tuesday	138¾	140½	....	146⅝

The following are to-days' telegram:

New York, Aug 3.—Wheat, 83¾c for August, 81⅞c for September and 88⅝c for December.

Chicago, Aug ust 3.—Wheat, 78⅛c for August, 78⅜c for September and 81c for December.

San Francisco.

WHEAT.

	Seller '92.	Buyer Aug.	Buyer Sept.	Buyer Oct.	Buyer Dec
Thursday, high st	137⅝	....	....	....	142⅝
" lowest	137⅝	....	....	....	14 ⅜
Friday, highest	137½	....	....	....	142¼
" lowest	136¾	....	....	....	142
Saturday, highest	137¼	....	....	....	142½
" lowest	136¾	....	....	....	142
Monday, highest	136⅞	....	....	....	142½
" lowest	136¾	....	....	....	142⅜
Tuesday, highest	....	....	139	....	142⅞
" lowest	136⅞	....	139	....	142¾

The following are to-day's recorded sales on Call:

Wheat—Morning Informal—Buyer December—200 tons, $1.42⅜. Seller 1892—200 tons, $1.36⅝; 300, $1.36⅝ ℔ ctl. Regular session. Buyer December—100 tons, $1.42⅜; 100, $1.42½. Seller 1892 500 tons, $ 36½; 1400 $1.36⅝ ℔ ctl. Afternoon Buyer December—700 tons, $1.42⅜; 100, $1.42½. Seller 1892—100 tons, $1.36½; 600, $1.36⅜ ℔ ctl.

BARLEY.

	Seller '92.	Buyer Aug.	Buyer Sept.	Buyer Oct.	Buyer Dec.
Thursday, highest	93	....	....	....	98½
" lowest	92½	....	....	....	9-¼
Friday, highest	91⅝	....	....	...	99½
" lowest	94½	....	....	....	98½
Saturday, highest	..	....	....	....	98⅝
" lowest	..	....	....	....	98⅝
Monday, highest	94⅝	....	95	98	100
" lowest	93⅝	....	95	97⅞	99½
Tuesday, highest	95	....	....	....	101¼
" lowest	94¾	....	....	....	101¼

The following are to-day's recorded sales on Call:

Barley—Informal—Seller 1892, new—100 tons, 95½c December—200 tons, $1.00½ ℔ ctl. Regular session: Seller 1892, new—200 tons, 95c; 200, 95½c; 200, 95⅛ December—100 tons, $1.00½; 100, $1.00⅜ ℔ ctl. Afternoon—Seller 1892, new—100 tons, 94½c. No. 1 Brewing, new, spot—100 tons, $1.02½ ℔ ctl.

Markets by Telegraph.

Foreign Grain Review.

London, Aug. 1.—The Mark Lane *Express* says: English wheats are in favor of the buyers. The prospects are for good crops, although the harvest is generally likely to be late. Foreign wheats are quiet, but steady. Flour firm. Barley stronger, grinding grades 6d higher. Indian corn is firm, 6d to 9d higher. Beans and peas are in fair demand. Oats are 3d higher.

Eastern Canned Fruit Markets.

New York, July 31.—Canned fruits are firmly supported by the active intermediate Western demands for peaches and apricots and the prospective wants of the same for seaboard distributing points. Baltimore yellow peaches are now quoted up to Pacifics.

Eastern Dried Fruit Markets.

New York, July 31.—Prunes—Though a limited crop of prunes is admitted, there are a few buyers at 10 cents free on board for sixties to nineties. There have been large sales of Sultana at 7½c, duty paid.

Peaches—Evaporated peaches also are slow.

Raisins are not expected to last thirty days; bags range from 3½@6c; layers have sold at $1.75@2, all in a few hands. Some sales of new of the early shipments have been made at $1.70 for layers and $1.50@1.60 for three-crown loose and 5½c in bags. As matters stand these are inviting figures.

Apricots—Slow, buyers shy at the high rates, as consumers have been accustomed to cheap stock. Two cars of new sold for prompt use at 41@41½c for fresh fruit. The hot weather forced prompt selling, and returns to shippers will not be gilt-edged for the week.

Pears—Only prime green Bart'etts exceeded $2 ℔ box. The five cars for export arrived in good order, and their reception abroad is expected Wednesday next.

Eastern Wool Markets.

New York, July 29.—The movement in wool continues active and prices are firm. Stocks are heavy in all markets, the bulk of the clip having passed out of the hands of the growers. The demand for fleeces and the strong manner in which they have been put on the market is a subject of general comment. The grower has learned a lesson from the low prices he received last year and has put his wool up better, and in consequence has received an equivalent advance In Delaine wools there is good movement at unchanged prices. Unwashed wools sell well. The quantity which has come forward in this condition is larger than usual. Combing wools are being bought quite freely. Large sales of Texas wools continue to be reported. Quite a trade is noted in California wool. The receipts of Territories are large and seaboard markets are heavily stocked with them

New York, July 31.—The steady large sales of the month have taken out of the way a weighty proportion of the unwashed clip that is considered well sold even at the ruling easy prices, and with the same postion for fabrics the better sorts of California, Texas and Territory stock are now quoted with strong confidence, if not at the moment dear. Sales at New York were: 39,900 pounds domestic, 621,000 foreign. Boston sold 4,104,700 pounds domestic, 555,000 pounds foreign.

Miscellaneous.

New York, July 31.—Lima beans, after a brief lull, closed strong and active at $2.10 spot per bushel. California Horse Beans are as well liked as Italian; jobbing at 2½c per pound.

Hops show a stronger undercurrent; prime sell for 23½c; for the grades more readily taken by brewers the general quotations are as before; options are neglected. The increased state acreage is expected to make up for the losses in the damaged old yards.

General Remarks and Statistics.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending Aug. 2, '92, were as follows:

Flour, qr. sks	67,548	Bran, sks	9,449
Wheat, ctls	313,802	Buckwheat "	....
Barley, "	11c,958	Middlings "	2,765
Rye, "	226	Chicory, bbls	120
Oats, "	7,391	Hops, "	....
Corn, "	2,364	Wool, "	1390
*Butter, "	815	Hay, ton	3,960
do bxs	347	Straw, "	220
do bbls	24	Wine, gals	201,220
do kegs	91	Brandy, "	26,620
do tubs	9	Raisins, bxs	....
do ½ bxs	396	Honey, "	275
†Cheese, ctls	823	Peanuts, sks	....
do bxs	13	Walnuts "	....
Eggs, doz	31,800	Almonds "	....
do " Eastern	36 000	Mustard "	....
Beans, sks	2 381	Flax "	....
Potatoes, sks	20,661	Popcorn "	....
Onions, "	4,662	Broom corn, bbls	....

*Overl'd, 243 ctls. † Overland, — ctls.

Exports by Sea from San Francisco from July 1 to July 27.

	1892-93	1891-92
Wheat, ctls	482,693	819,985
Flour, bbls	5 ,255	123,847
Barley, ctls	78,024	113,110

Cereals.

Probably one of the most important compilations made lately, and which should be preserved for future reference, is that of Mr Brown, Statistician of the New York Produce Exchange, giving a basis on which to furnish crop estimates based on figures obtained from the Agricultural Department, Washington, for ten years past. The conclusion is reached that a condition of 100 in barley would mean 24 4 bushels per acre; in rye, 13 bushels, and in potatoes 91.7 bushels. Mr Brown, in the *Produce Exchange Weekly* of New York, says: Taking the figures for the years which have been reported, and the resulting meaning in bushels per acre of 100 has been as follows:

Wheat.	Condition at Harvest	Average Yield, Bushel	100 Condition Means, Bushel.
Winter (7 years)	82.5	12 1	14.6
Spring (7 years)	83.8	12 5	14 8
Corn (10 years)	84.7	24.3	28.7
Oats (10 years)	89 3	26.3	29.5
Barley (10 years)	90 1	22.0	24.4
Rye (10 years)	9.16	12 0	13.0
Potatoes (10 years)	8.13	77.0	94.7

The Minneapolis *Market Record* says that, while in some parts of the Northwest wheat is very promising, in others it is very uneven, and opinions regarding the outturn vary from as large as last year to 40 per cent less. A bonanza farmer in the Red River valley is quoted as saying that the crop is so late that ⅛ of it will remain to be cut by Sept. 15th.

According to the report of the Hungarian Minister of Agriculture, the area of wheat sown this year was 5,365 861 joch, equal to 3,000,000 hectares. Beerbohm estimates the outturn at 1 5-6 hectoliters per hectare, making a crop of about 143,000,000 bushels, or about 11,000,000 bushels more than the average.

It is stated that France has imported about 20,000 tierces of lard ahead of the increase in the new duty.

Dornbusch says that the past week has shown a general improvement in agricultural conditions in England, and quotes the *Agricultural Gazette* as saying that the outlook is for an average crop of grain. The conditions in France have been fairly good, and the harvesting so far shows a crop of about 300,000,000 bushels of wheat, indicating foreign requirements of 30,000,000 to 40,000,000 bushels. In Russia, official reports are generally satisfactory, but mercantile reports are less encouraging.

The Chicago *Tribune* says: "The State reports from the surplus corn States show that everwhere the crop is uneven, has not generally received its usual amount of cultivation, that it is not only beginning to tassel out, but to-day is from three to four weeks late as compared with an average season. Nebraska seems to be the only State which has anything like a prospect of making as good a yield as last year; but when the corn has only just tasseled out and has not made a single ear, and the weather of the next 20 days being the weather which makes the ears, it seems the height of folly to attempt to estimate, with the extreme conditions through which we have gone this season, how big or how small a corn crop we are going to make in 1892. We all recollect how poor our prospects were in July, and also August last year, and then what September did for us. Last year we had an even and fine stand of corn, while this season it is just the reverse."

In the local market wheat has exhibited more strength in a quiet way, with higher prices paid than reported by the daily press. The demand was larger from both exporters and millers, and their purchases strengthened the market for the more choice grades. More vessels were taken the past week than in any one week since the new crop season set in, and it was the purchasers for stiffening and topping purposes that gave the strong support to our local market. Vessels under charter are receiving quicker dispatch.

At last barley has made an upward move in the local market. Heavy purchases by exporters and home maisters have been the leading influence on the market. Holders have also shown more disposition to store, believing that at the low prices which ruled in last month it was a safe proposition. The crop up North, at the East and also abroad is not, taken as a whole, an average. The consumption of feed is enlarging.

Oats are selling at higher prices. The advance is due to stronger buying, firmer holding, light receipts and depleting local stocks.

White corn met with a strong demand from Mexico which caused holders to advance prices, but at the close it is quiet. Yellow corn is steady, but firm.

Rye has been in fair inquiry, but trading is slow owing to the advanced views of holders.

Feedstuff.

Ground feed is in good demand. Ground and rolled barley are higher, but other kinds are firm but unchanged.

Poor hay continues to press the market, which causes the market to rule in buyers' favor for all that does not come up to choice. It looks very much as if farmers are holding their more choice hay back and selling the poor. The demand shows signs of enlarging.

Dairy Produce.

Butter has held strong for the better grades, while ruling irregular for the poorer grades. Some of the commission merchants are asking a cent advance on outside quotations for gilt-edged, which is causing the retail trade to restrict purchases of that quality and turn more largely to good. The market acts at the close top-heavy, which inclines some to the opinion that slightly lower figures might rule before another advance sets in.

Gilt-edged mild cheese is scarce and commands outside figures, but good choice cheese is slow, while poor is hard to place. There are no signs of the stock cleaning up. The manufacture of adulterated cheese from skim milk and emulsion of lard is against the market.

Eggs have had a wide range. The receipts of both Californian and Eastern have been light, which has admitted of the market being cleaned up to better advantage, although there is still an oversupply of poor stock. For shaky and otherwise poor eggs sales are made at 12 to 18 cents. Eggs that are very choice, fresh laid, of extra size and good white color sell readily at 30 cents, and at times even higher.

Fruit.

Oranges of the 1891-92 crop are about cleaned up. The outlook for the 1892-93 crop is of a most promising character. The market is largely supplied by importa ions from Tahiti. Limes are very weak, but lemons are steady.

For deciduous fruit the market has held steady for berries, but strong for tree fruit. The supply of the more choice is under good control and purchasers have to pay top figures, with, at times, a slight advance to secure something extra. The overland shipments are very large, larger than in the history of the State. The fruit is firm, good keepers and of most excellent quality. The shipments from San Jose alone aggregated for the week ending July 30th, 221,320 pounds, and of canned fruit, 183,375 pounds.

The first carload of this year's pack of dried apricots of Santa Clara county was shipped from San Jose on Monday, August 1st, by W. W. Cozzens to C. M. Weber & Co., dried fruit merchants of Chicago, over the Southern Pacific Company's Odgen route. It will reach its destination in seven days.

The market for new crop dried fruit has ruled very strong, with buyers bidding higher and sellers reserved, although, toward the close, large operators are selling and, at the same time, trying to get others to hold. Our quo ations give the range of values so far as they are obtainable at this writing.

From N.Y our mail advices report as follows: A line of California canned pie peaches, to arrive, was offered at $1.05 for 3-lb and $3.25 for gallon tins. Eden Center and Seneca gallon canned apples realized $2 35 on spot, and $2.50 was again obtained for some specially fine goods. Actual sales here were reported of new crop California prunes in sacks, sizes 60's to 90's, at 10c f. o. b. on the Coast, first ha f of October shipment. About three weeks ago upward of 25 carloads of California fruit were secured for drying purposes by a Western firm. Green fruit shippers subsequently bid higher prices, and the grower, as usual, forgot about the former sale. The Western firm managed to secure one carload. New evaporated peaches, fancy quality, in sacks, are now quoted at 12½ to 13c f. o. b. on the Coast. The goods are not selling in this vicinity. The prices are looked upon as being extravagant California apricots, 1892 crop, that have been offered latterly at $1.40 f. o b. San Francisco, are now held at $1 45, and the same packers' peaches are now quoted at $1 80 there, against $1.75 last week. There are still some offerings here of prime quality evaporated apricots in sacks. Royal variety at 13c f o. b. Pacific coast. and coast packed box fruit was said to have been offered at 15½c delivered here. Western quotations on apricots were 13½c f. o b. upward.

The *Commercial Bulletin*, New York, says: Cables have been received from Fiume to-day indicating a further rise in the value of forward shipments of new-crop Turkish prunes, and, singular to relate, the advance there is attributed in a great measure to the improvement which has occurred here. The latest quotations received would make the lay down cost of bag fruit 6½c, but at the same time some shippers there decline to make firm offers of stock, and in response to cables sent thither ask for offers of goods held here, thus indicating a speculative interest existing among the trade at primary sources. The crop of Turkish, it is now acknowledged, will be a short one The crop of Bohemia, it is also expected, will be less than last year, and from cable advices the cost to import forward goods is placed at 5⅜c. Upon the spot the market continues to show an upward tendency, and values to-day are uncertain. As for instance, '91 fruit in casks is quoted by some 5¼ to 5⅜c. but where orders have been held brokers have been confronted with 5½ to 5⅝c as holders' limits. There are renovated goods in the market which are offered at less money, some buyers accepting the fruit without question. The process of renovating has very nearly absorbed the stock of old. French to-day are held at 9c as inside for the four sizes, and small sales are said to have been made at this price. California are about out of market, and prices in consequence are nominal. California raisins continue to improve in demand, and the market is in rather a sensitive condition, holders being reserved in their offerings, and prepared to place an additional fraction on their ideas at a moment's notice. There is further inquiry from Chicago, and negotiations are pending for some considerable quantities for that destination. Currants are in better demand, and the tone of the market is decidedly stronger. Cables received from Greece state that the growing crop has been injured somewhat by too much rain, and that the total yield will be considerably less than last year.

Live Stock.

The market has an easier tone, with concessions secured by buyers for bullocks and mutton sheep which cannot be cut up to advantage, and also for those which are not in thoroughly good condition. Calves and hogs are essentially unchanged.

Miscellaneous.

Poultry held steady up to Monday, when a firmer feeling set in, with an advance established on yesterday and a stiffer market to-day owing to no receipts from Petaluma and a good inquiry from dealers. We do not quote the higher prices paid today, for with the receipts, prices will fall back.

The market for Lima and Bayo beans is very strong at an advance. White are stronger.

Hops are beginning to receive more attention in a quiet way. Crop advices from the East are, as a rule, unfavorable

Wool is essentially unchanged, except for poor stuff which is hard to sell except at low prices.

Honey is strong. New York advices report a strong market with an advance established. The crop at the East is said to be short.

From reliable advices up to Aug. 3, the following summary tonnage movement is compiled:

	On the way 1892.	On the way 1891.	In port 1892.	In port 1891.
San Francisco	264,043	359,336	*180,918	76,634
San Diego	17,958	27,176	11,060	.....
San Pedro	6,602	7,098	1,338	5,783
Oregon	56,250	43,936	18,666	
Puget Sound	27,905	32,713	.....	
Totals	372,758	470,259	212,012	82,467

*Engaged for wheat, 1892, 50,785; 1891, 59,136

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

Wednesday, Aug. 3, 1892

Limes, Mex	2 00 @ 3 50	Apricots, pr box	50 @ 75
Do Cal	— @ —	Fruit in bulk to canners:	
Lemons, box	1 50 @ 4 00	Apricots, ℔ lb 1½ @ 3; Pears, 1½ @ 2; Plums, white, 1½@2;	
Do Sicily	5 00 @ 6 00	Peaches, freestone, 1½@2½;	
Strawberries, per chest—		clings, 2@3. Extra choice	
Longworth	7 00 @ 9 00	fruit for special purposes sells	
Sharpless	5 00 @ 7 00	at a slight advance on outside	
Raspberries, ch.	5 00 @ 7 00	quotations.	
Peaches, box	— @ —	Beets, sk	— @ 75
Do Crawford	35 @ 60	Carrots, sk	40 @ —
Do Hale's Early	30 @ 50	Okra, dry, lb	15 @ —
Bl'kberries ℔ ch	3 00 @ 4 50	Do green	6 @ 10
Figs, blk box	2 00 @ 2 50	Parsnips, ctl	— @ 1 25
Do White do	75 @ 1 00	Peppers, drv. lb	10 @ —
Apples, Red Astrachan	75 @ 1 10	Do grn Chili, bx	40 @ 50
Do Gravenstein	1 00 @ 1 50	Do do Bells	50 @ 75
Crabapples	75 @ 1 00	Turnips, ctl	75 @ —
Cant loupes, pr crate	2 00 @ 4 00	Cabbage, 100 lbs	60 @ 90
Melons, pr 100	10 00 @16 00	Garlic, lb	1½@ 3
Grapes, pr bx—		Squash, Sum, bx	15 @ 25
Do White	50 @ 75	Tomatoes	— @ —
Do Black	75 @ 1 25	Do River irg bx	75 @ 1 25
Prunes, Tragedy	50 @ 90	Peas, green, sk	50 @ 1 75
Do German	50 @ 75	String Beans	2 @ 4
Plums, Duane's Purple	50 @ 65	Cucumbers, box	15 @ 30
Do Peach	65 @ 85	Mushrooms	30 @ 50
Do Wash	50 @ 65	Egg Plant, bx	75 @ 1 25
Do Pedro	40 @ 50	Green Corn, sk	— @ —
Pears	50 @ 75	Do st Bay prdz	10 @ 15
Do Bartlett	75 @ 1 00	Do Berkely box	40 @ 65

Continued on next page.

Dried Fruits.

The quotations given below are for average prices received by commission merchants on consignments by growers. Something very fancy fetches an advance on the highest quotations while poor sells slightly below the lowest quotations. Prices, unless otherwise specified, are for fruit in sacks; add for 50-lb. boxes ½c per lb., and for 25-lb boxes, ¼c to 1c per lb.

APPLES	
Sun-dried, ⅛s, common	2½ @ 3½
Do do prime	3½ @ 4
Do do choice	4 @ 4½
Do sliced, common	3½ @ 4
Do do prime	4 @ 4½
Do do choice	4½ @ 5½
Evap. bleached, ring, 50-lb boxes	5½ @ 7
APRICOTS	
Sun-dried, unbl. com.	4 @ 5
Do do prime	6 @ 7
Do do choice	8 @ 9
Do bleached, prime	11 @ —
Do do choice	12 @ —
Do do fancy	13 @ —
Evap. choice, in boxes	13½ @ —
Do fancy, do	14 @ —
FIGS	
Sun-dried, black	— @ —
Do white	— @ —
Do do washed	— @
Do do fancy	— @ —
Do do pressed	— @ —
Smyrna boxes	— @ —
Do sacks	— @ —
GRAPES	
Sun-dried, stemless	3½ @
Do unstemmed	1½ @ 2
NECTARINES	
Red, sun-dried	— @ —
Do Evap., in boxes	— @ —
White, sun-dried	— @ —
Do evaporated	— @ —
PEACHES	
Sun-dried, unpeeled, common, bleached	8 @ —
Do do prime, do	10 @ —
Do do choice, do	11½ @ —
Do do fancy	12 @ —
Evap, unpe'l'd, choice	12½ @ —
Do do fancy	13 @ —
Sun-dr, pl'd, prime, bl.	— @ —
Do do choice	— @ —
Do do fancy	— @ —
Evap, peeled, in boxes, choice	— @ —
Do do fancy	— @ —
PEARS	
Sun-dried, quarters	— @ —
Do sliced	— @ —
Evap, sliced, in boxes	— @ —
Do ring do	10½ @ —
PLUMS	
Pitted, sun-dried	— @ —
Do evap. boxes, choice	— @ —
Do do do fancy	— @ —
Unpitted	— @ —
PRUNES	
Cal. French, ungraded	8 @ —
Do graded, 60 to 100	— @ —
Do do 40 to 60	— @ —
Fancy sell for more money.	
RAISINS	
London Layers, choice ℔ bx	@ —
Do fancy, do	@ —
Layers, ℔ bx	— @ —
Loose Muscatels, common, ℔ bx	— @ —
Do choice, do	— @ —
Do fancy, do	— @ —
Unstem'd Muscatels, in sacks, ℔ lb	— @ —
Stemmed do do	— @ —
Seedless do do	— @ —
Do do ℔ 20-lb bx	— @ —
Sultanas, unbl, bxs	— @ —
Do bleached, in bxs	— @ —

Halves, quarters and eighths 25, 50 and 75 cents higher respectively than whole boxes

General Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lowe quotations.

WEDNESDAY, Aug. 3, 1892

BEANS AND PEAS.		Common	1 30 @ —
Bayo, ctl	2 75 @ 3 00	Sonora	1 33¾ @ 1 45
Butter	2 50 @ 2 85	HOPS.	
Pea	2 30 @ 2 60	1891 Choice to Ex.	20 @ —
Red	2 75 @ 3 00	Fair to Good	18 @ —
Pink	2 50 @ 2 60	1892 Bid	16 @ 18
Small White	2 20 @ 2 45	FLOUR.	
Large White	2 10 @ 2 35	Extra, City Mills	4 65 @ 4 75
Lima	3 00 @ 3 15	Do Country Mills	4 50 @ 4 75
Bid Peas, blkeye	3 00 @ 3 30	Superfine	2 75 @ 3 10
Do green	1 50 @ 2 75	NUTS—JOBBING.	
Do NLes	1 30 @ 1 40	Walnuts, Cal. ℔	6 @ —
Split	4 50 @ 5 50	Do Choice	8 @ —
BUTTER.		Do paper shell	9 @ —
Cal. Poor to fair, ℔	15 @ —	Almonds, sft shl.	11 @ —
Do good to choice	18 @ —	Paper shell	14 @ —
Do Giltedged	— @ 24	Hard Shell	6 @ 7½
Do Creamery rolls	— @ 24	Brazil	9 @ 10
Do do Giltedge	— @ 25	Pecans small	11 @ 13
Eastern	— @ —	Do large	14½ @ 16
CHEESE		Peanuts	3½ @ 4½
Cal. choice cream	9 @ —	Filberts	11 @ —
Do fair to good	7½ @ —	Hickory	7 @ 8
Do gilt edged	— @ 10	Chestnuts	11½ @ 16
Do skim	5 @ 6½	ONIONS.	
Young America	— @ 11	Silverskin	40 @ 50
EGGS.		POTATOES.	
Cal. "as is." doz.	16 @ 18	Early Rose, ctl.	40 @ 55
Do candled	19 @ 23	Peerless	50 @ 65
Do choice	23 @ 25	Garnet Chilies	60 @ 85
Do fresh laid	26 @ 29	Burbank Seedlings	50 @ 80
Do do selected	— @ 30	POULTRY.	
Eastern "as is"	14 @ 16	Hens, doz	6 50 @ 8 00
Do candled	17 @ 18	Roosters, old	6 00 @ 7 50
Do selected	19 @ 22	Do young	5 00 @ 7 50
Outside prices for selected large eggs and inside prices for mixed sizes—small eggs and hard to sell.		Broilers, small	2 50 @ 3 75
		Do large	3 75 @ 4 25
		Fryers	4 50 @ 5 50
		Ducks	4 00 @ 4 75
		do, large	5 00 @ 5 50
		do, extra large	6 00 @ —
		Geese, pair	1 25 @ 1 75
		Goslings	— @ —
		Turkeys, Gobblr.	18 @ 20
		Turkeys, Hens	16 @ 18
		All kinds of Poultry, if poor or small, sell at less than quoted; if large and in good condition, they sell for more than quoted.	
		Manhattan Egg Food ℔ cwt	11 50 @ —
		PROVISIONS.	
		Cal. Bacon, he'vy, ℔	10½ @ —
		Medium	11½ @ —
		Light	13 @ —
		Lard	9½ @ 12
		Cal. Sm'k'd Beef	11½ @ —
		Hams, Cal salt'd	11½ @ —
		do Eastern	14½ @ —
FEED.		SEEDS.	
Bran, ton	17 00 @ 18 50	Alfalfa	— @ —
Feedmeal	27 00 @ 30 00	Clover, Red	14 @ 15
Gr'd Barley	21 00 @ 22 50	White	20 @ —
Middlings	20 00 @ 21 50	Flaxseed	2 00 @ 2 25
Oil Cake Meal	— @ 25 00	Hemp	3½ @ 4
Manhattan Food ℔ cwt.	7 50	Mustard, yellow	3½ @ 4
HAY		do Brown	3 @ 3½
Wheat, per ton	8 00 @ —	WOOL.	
Do choice	— @ 12 50	SPRING, 1892.	
Wheat and Oats	8 50 @ 11 00	Humb't & Men'cino	17 @ 21
Wild Oats	8 00 @ 11 00	Sac'to valley	16 @ —
Cultivated do	7 00 @ 10 00	S Joaquin valley	11 @ 16
Barley	6 00 @ 9 00	Cala'v & F'ch'll.	16 @ 21
Alfalfa	7 00 @ 9 00	Oregon Eastern.	12½ @ 19
Straw, bale	40 @ 50	do valley	18 @ 23
GRAIN, ETC.		So'n Coast, def.	10 @ 12
Barley, feed, ctl.	88¾ @ 92½	Nevada (State)	15 @ 19
Do Choice	93½ @ —	HONEY.—1892 CROP.	
Do Brewing	1 00 @ —	WhiteComb, 2-lb	9 @ 12
Do do Choice	1 05 @ —	do do 1-lb frame	11 @ 14
Do do Giltedge	1 07½ @ —	White extract'd	6½ @ 7½
Do Chevalier	— @ —	Amber do	5 @ 6
Do do Giltedge	— @ —	Beeswax, lb	25 @ 28
Buckwheat	— @ —		
Corn, White	1 40 @ — —		
Yellow, large	1 30 @ — —		
Do small	1 35 @ — —		
Oats, milling	1 52½ @ —		
Feed, Choice	1 46½ @ —		
Do good	1 42½ @ —		
Do fair	1 37½ @ —		
Surprise	1 55 @ —		
Black Oat	— @ —		
Do Oregon	— @ —		
Gray	— @		
Rye	1 30 @ —		
Wheat, milling.			
Gilt edged	1 48¾ @ —		
Do Choice	1 46¾ @ —		
Do fair to good	1 42½ @ —		
Shipping, cho'ce	1 40 @ —		
Do good	1 37½ @ —		
Do fair	1 35 @ —		

Live Stock.

BEEF.		MUTTON.	
Stall fed	5½ @ —	Wethers	7 @ 8
Grass fed, extra	5½ @ —	Ewes	6½ @ 7
First quality	4¾ @ —	Do Spring	9 @ —
Second quality	4 @ —	HOGS.	
Third quality	3½ @ —	Light, ℔ lb, cents	5¾ @ —
Bulls and thin Cows	3 @ —	Medium	5¾ @ —
VEAL.		Heavy	5 @ —
Range, heavy	4 @ —	Soft	4¾ @ —
Do light	5 @ —	Feeders	3¾ @ —
Dairy	6 @ —	Stock Hogs	3½ @ —

Twine and Baling Rope.

BALE ROPE.		TWINE.	
Sisal, 3 and 4 yarns	9½	Pure Manila Hop, in balls, tarred	12
Do, 2 yarns, light	10	Do, Grape-Vine, in balls or coils	12½
Duplex, 3 yarns	9½	Do, Spring	16
Manila, mixed, 3 yarns, heavy	11	Duplex Hop, in balls, tar'd	10
Pure Manila, 3 and 4 yarns	12½	Do, Grape-Vine, in balls or coils	11
Do, 2 yarns, light	13		

Grain and Wool Bags.

Calcutta, spot	7 @	7½
Wool Bags	36 @	38

Wine.

Red and White Wine from bay counties, vintage of 1891, per gal	10 @	15

Auction Sales of California Fruits.

At New York.

July 27.—Three carloads—German Prunes, $2.15; Tragedy Prunes, $2 70@2.75; Purple Duane Plums, $2.10@2 20; Peach Plums, $2@2.10; Japan Plums, $1.65; Early Crawford Peaches, $1@1.45; Hale's Early Peaches, 65@80c; Bartlett Pears, $1.70.

July 27.—Four carloads—Bartletts, $1.90@2.80; Crawford Peaches, $1@1.50; German Prunes $2.10@2.55; P. D. Plums, $1.80@2.75; Washington Plums, $2.45@3.25; Tragedy Prunes, $2.30@3 55; Magnum Bonum Plums, $1.95@2; Golden Drop Plums, $2.40; Bulgarian Prunes, $1.40; Japan Plums, $2.80; Bradshaw Plums, $2.

July 28 —Two carloads—Crawford Peaches, 65c@$2; Snowflake Peaches, 80c; Bartlett Pears, $1.70@2.95; Plums, $2.50; Washington Plums, $2.25@3; Bradshaw Plums, $1.30@2.20; Peach Plums, $3.10; Columbia Plums, $1.50; Purple Duane Plums, $1 70@2.65; Japan Plums, $1.50; Magnum Bonum, $3; German Prunes, $1 50@2.75; Tragedy Prunes, $2.23@2.35; French Prunes, $1 10@1.50; Bulgarian Prunes, $2.25.

July 28 —Two carloads—Peach Plums, $2.15; Purple Duane Plums, $1 70@2.10; Bradshaw Plums, $1 80@2.15; St John Peaches, 70c; Strawberry Peaches, 60@70c; Early Crawford Peaches, 55c@$1.15; Foster Peaches, $1@1.20; Bartlett Pears, $1.65@1.70; Figs, $1 95.

July 29.—Two carloads—Bartlett Pears averaged $2.15; Early Crawford Peaches, 70@95c; Foster Peaches 65c; Royal Native Plums, 60@85c; Washington Plums, $1.25; German Prunes, $1.50.

July 29.—Four carloads—Bartlett Pears, $2.25@2.75; Crawford Peaches, $1 20@2.15; Egg Plums, $2 50@2.75; Foster Peaches, $1.35@1.90; Hale's Early Peaches, $1.10@1.40; Susquehanna Peaches, $1.65; half-boxes Bartlett Pears, $1.10; Clapp's Favorite Pears, $2 30; Oregon Plums, $1 65@3.87; Bradshaw Plums, $1.35@2.30; Peach Plums, $1 55; Japan Plums, $4 05; Tragedy Prunes, $1.30@1.80; Nectarines, crates, 55c; boxes, $2.85; Apricots, 45@60c; Washington Plums, $1.90@2.55; P. D Plums, $1.40@1 90; Columbia Plums, $1 30@2.15; German Prunes, $1.30@2 50; Gros Prunes, $3.60.

July 30.—Three carloads—Crawford Peaches, 90c@$1; Strawberry Peaches, 80@85c; Foster Peaches, $1.35@1.40; Decker Peaches, $1.35@1.60; White Peaches, $1.40; Bartlett Pears, $2 90@3 10; Purple Duane Plums, $1.65@1.85; Washington Plums, $1.85; Columbia Plums, $1.95; German Prunes, $2.15@2.25. Hot.

August 1. — Five carloads: Bartlett Pears, $2.10@3.15; Early Crawford Peaches, 90c@$1 40; Strawberry Peaches, 90c; St. John Peaches, $1.20; Foster Peaches, $1.25@1 35; Fontainebleau Grapes, half crates, 95c@$1 35; Washington Plums, $1.75@1.80; Columbia Plums, $1 95.

August 1.—Four carloads: Sales, $5852. Bartlett Pears $2.55@3.05; Crawford Peaches, $1 15@1.65; Hale's Early Peaches, $1; Foster Peaches, $1 25@1.55; Mangus Peaches, $1.35; half boxes Bartlett Pears, $1.43; Nectarines, 55c, P. D. Plums, $1.74@2 85; Japan Plums, $4.37; Oregon Plums, $1.50@3; Plums, $3.10; Prunes, $1.80@1.85; German Prunes, $2 70.

At Minneapolis.

July 28.—Three carloads—Bartlett Pears, $1.80@2; German Prunes, $2.10; Crawford Peaches, very ripe, 50c@80c;

July 28.—Two carloads—Bradshaw Plums, $2.10; Jefferson Plums, $1.75; Quackinboss Plums, $2.05; Washington Plums, $1.90; P. D. Plums, $1.90; Peach Plums, $2; German Prunes, $1.85@1.90; Hale's Early Peaches, 65c; Early Crawford Peaches, 65@85c; Strawberry Peaches, 90c; Foster Peaches, 90c; Bartlett Pears, $1.65@$1.80.

July 29.—Two carloads—Bartlett Pears, $1.75; Plums, $1.90@2.55; Nectarines, 95c; Peaches 75@90c.

July 30.—One carload—Peaches, $1@1.25; Pears, $2.25@2-50.

August 1 —Three carloads: Bartlett Pears, $2@2.10; Peaches, 65c@$1; Grapes, $1.85@2; Purple Duane Plums, $2.10; Peach Plums, $2.25.

At Boston.

July 28.—One carload—Bartlett Pears realizing for same $2@2.25.

July 30.—Two carloads—Bartlett Pears averaged $3.27; German Prunes, $3; Japan Plums, $4.25; Sweet Plums, $3.62; Jefferson Plums, $2.47; Early Crawford Peaches, $2.63.

August 1.—Two carloads: Bartlett Pears averaged $3.37@3 81; Crawford Peaches, $3.15; Washington Plums, $4; German Prunes, $3.45.

At Omaha.

July 27.—Two carloads—Peaches sold for $1@1.25 ℔ box; Bartlett Pears, $2@2.25 ℔ box.

July 30.—Two carloads—Pears at $1.75@2.25.

August 0.—One Carload: Crawford Peaches, 90c@$1.15.

At Chicago.

July 27.—Six carloads: Bartlett Pears, $1.60@2.20; Clapp's Favorite Peaches, $1 35; Figs, 75c; Crawford Peaches, 75c@$1; Peaches, 50c@$1.30; Washington Plums, $1.75@2; Purple Duane Plums, $1 60@2.65; German Prunes, $2.40@2.55; Pears, $1.35; Plums, $1.40@2.15; Nectarines, 40c@$1; Peach Plums, $2.60; Egg Plums, $1.85@2.05; Grapes, $1.50@1.65; Bradshaw Plums, $1.25. Extremely hot.

July 27.—Four carloads: Peach Plums, $2@2.20; Bradshaw Plums, $2.10@2.25; Columbia Plums, $2.05; Yellow Egg Plums, $2.25; Purple Duane Plums, $1 85@2; Bohemian Plums, $1 60; Tragedy Prunes, $2.40; Bulgarian Prunes, $1.55; German Prunes, $2.10; Bartlett pears, $1.65@2 25; Early Crawford Peaches, 70c@$1; Hale's Early Peaches, in bad order, 40c; Royal Apricots, $1@1.45.

July 28.—Five carloads: Bartlett Pears, $1.65@2.25; German Prunes, $2@2.15; Columbia Plums, $2.05; Royal Native Plums, $1.65; Washington Plums, $1.75; P. D. Plums, $1.85@2; Fontainebleau Grapes, $1.20@1.60; Early Crawford Peaches, 75c@$1; Strawberry Peaches, 70c; Foster Peaches, 75@85c. Some fruit overripe and bad sold for less.

July 28.—Six carloads: Bartletts, $1.50@2.40; Nectarines, 50c@$1; Crawford Peaches, 60c@$1.20; Peaches, 40c@$1.25; St. John Peaches, 55@90c; Foster Peaches, $1.30; Strawberry Peaches, 60c; Grapes, $1.30@1 65; Gages, 85c; Plums, $1 60@2.20; Washington Plums, $1.90@2.10; Bradshaw Plums, $1.20@2.60; P. D. Plums, $2.25; Prunes, $2.45; German Prunes, $1.70@2.40; Tragedy Prunes, $2.25@3 10.

July 29.—Eight carloads: Bartlett Pears, $1 35@2.05; Pears, 60c; Peaches, 45c@$1.05; Plums, 95c@$2 25; German Prunes, $1.80@2.45; Bradshaw Plums, $1.80@2.60; Japan Plums, $1 80@2; P. D. Plums, $1.25@2.30; Grapes, $1.20@$1.55; Crawford Peaches, 65@80c; Apricots, $1; Tragedy Prunes, $2.15@2.50; Nectarines, 50c@$1.20; Strawberry Peaches, 55c; Washington Plums, $1.90; Cling Peaches, $1 05@1.50; Bulgarian Prunes, $1.20@1 90; Prunes, $1 15.

July 29.—Three carloads: Bartlett Pears, $1.35@2; Columbia Plums, $1 90@1.95; Yellow Egg Plums, $2; Washington Plums, $1.20@2; Bradshaw Plums, $1.35@2.10; Japan Plums, $1.40@1.55; Purple Duane Plums, $1.25@1.90; Jefferson Plums, $1.80; Early Crawford Peaches, 60@90c; some unsound, 40c; German Prunes, $160@1.65.

July 30.—Three carloads: Bartlett Pears averaged $1.90; Fontainebleau Grapes, $1.10@1.30; Early Crawford Peaches, 75c@$1; Centennial Peaches, $1 10; Foster Peaches, 85c; Strawberry Peaches, 90c; Red Nectarines $1; German Prunes, $1.70; Washington Plums, $1.25. Some fruit, small and unsound, sold for less.

July 30 —Six carloads, Bartlett Pears, $1.80@2 15; Peaches, 60c@$1; Apricots, 90c@$1.15; Grapes, $1.30@1.40; Nectarines, 90@1.45; Plums, $1.50@1.70; Columbia Plums, $1.75@2.10; German Prunes, $1.90@2.25; Magnum Bonum Plums, $2.30; Purple Duane Plums, $1 40@2 25; Washington Plums, $1 30@2; Egg Plums, $1.90; Gros Prunes, $1.85; Tragedy Prunes, $2.25.

August 1.—Thirteen carloads: Nectarines, crates, 70c@$1.15; Egg Plums, crates, $1 50@1 80; Plums, crates, $1.55@1.80; Columbia Plums, $1 75@2; Bulgarian Prunes, $1.50; German Prunes, $1 60@1.75; Green Gages, $1; Washington Plums, $1.40; Apricots, $1; Fontainebleau Grapes, $1@1.50, single crates; Bartlett Pears, $1.65@2 40; Howell Pears, $1.65@1 80; Bellflower Apples, $1 65; Clapp's Favorite Pears, $1.90; Peaches, 55c@$1.30 for Freestones; Clingstone Peaches, $1.30. Eighteen cars California fruit were sold in Chicago to-day.

August 1.—Five carloads: Bartlett Pears, $1.95@2.15; Early Crawford Peaches, 85c@$1.25; Foster Peaches, $1@1 30; Centennial Peaches, $1; Strawberry Peaches, 65@85c; Royal Apricots, $1 15; Red Nectarines, $1@1.05; French Prunes, $1 15@1.30; Hungarian Prunes, $1 35@1.40; German Prunes, $2.15; Italian Prunes, $1.75; Gros Prunes, $2.75; Columbia Plums, $1.80@2 20; Damson Plums, $1.50@1.90; Washington Plums, $1.40; Purple Duane Plums, $1 75; Bradshaw Plums, $1.75@1 85; Peach Plums, $1.45; Egg Plums, $1.20@1.40; half crates Fontainebleau Grapes, $1.10@1.30.

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Agricultural Fairs.

State Fairs.

STATE.	PLACE AND SEC'Y.	DATE.
Oregon	Salem, J. T. Gregg	Sept. 12–17
California	Sacramento, Edwin F. Smith	Sept. 5–17
Washington	Spokane	Sept. 19–24
Nevada	Reno, C. H. Stoddard	
Western Washington Industrial Exposition	Tacoma	

District Fairs.

NO.	PLACE AND SEC'Y.	DATE.
1	Oakland	Aug. 8–13
2	Stockton	Sept. 19–Oct. 1
3	Chico, J. D. Sproul	Aug. 23 27
4	Petaluma, Dr. Thos. Macleay	Aug. 29–Sept. 3
5	Santa Clara, George H. Bragg	Sept 26–Oct 5
6	Los Angeles	
7	Salinas City, J. J. Kelley	
8	Placerville, Thos. Fraser	Aug. 23–27
9	Rohnerville	
10	Yreka, C. S. Smith	Oct. 5–8
11	Sierraville, Fred Blinman	Oct, 3–7
12	Lakeport, H. A. McCraney	Sept. 27, Oct. 1
13	Marysville, G. R. Eckart	Aug. 28–Sept. 3
14	Santa Cruz, Oscar L. Gordon	Oct. 10–15
15	Bakersfield, J. J. Kelly	
16	San Luis Obispo, J. H. Barrett	Sept 27–Oct 1
17	*....., I. J. Rolfe	Aug. 23–28
18	Independence, C. W. Craig	Sept. 27–30
19	Santa Barbara, H. B. Barstow	Aug. 23–27
20	Auburn, F. D. Adams	Aug. 30–Sept. 3
21	Fresno, J. M. Reuck	Sept. 26–Oct. 1
22	Escondido, G. M. Dannals	Sept. 21–24
23	Concord, F. L. Loucks	Aug. 29–Sept 3
25	Napa, D. L. Hackett	Aug. 22–27
26	Ione, C. T. La Grave	Sept. 27–30
27	Redding, H. R. Hodson	
28	San Bernardino	
30	Red Bluff, M. R. Hook	Aug. 16–20
31	Hueneme, T. H. Merry	Aug. 30–Sept. 3
32	Santa Ana, W. A. Beckett	Oct 3–7
33	Hollister, A. D. Shaw	Oct. 11–15
34	Susanville, C. E. Emerson	Sept. 3–7
35	Merced	
36	Vallejo	Aug. 27–30
37	Lompoc, W. I. Nichols	Sept. 20–23
38	Modesto	Sept. 28–Oct. 1
—	Glenn Co. Willows, W. V. Freeman	Aug. 9–13

*Stock exhibit and races will be at Glenbrook, and pavilion exhibit at Nevada City.

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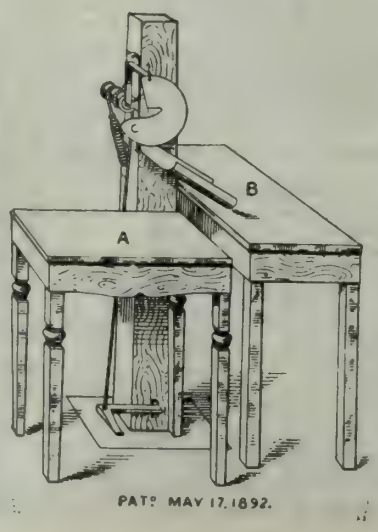

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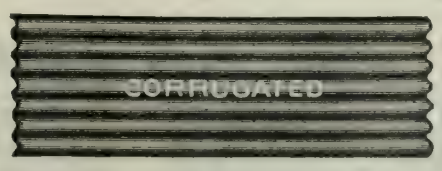

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As the Lightning has greater capacity than others, necessitates its being made correspondingly stronger, by using steel in parts where others use wood and cast iron; the baling case on the Lightning is made of heavy steel (having a tensile strength of 60,000 pounds) bound with steel angles, not bolted but riveted with red hot rivets, making it practically a mould of steel; the top and bottom of the tying chamber is Steel Plate, and the sides T Steel; thus the bale has no possible avenue of escape to spread, until tied and entirely out of the press; this is the secret of the solid bale for which the Lightning is noted.

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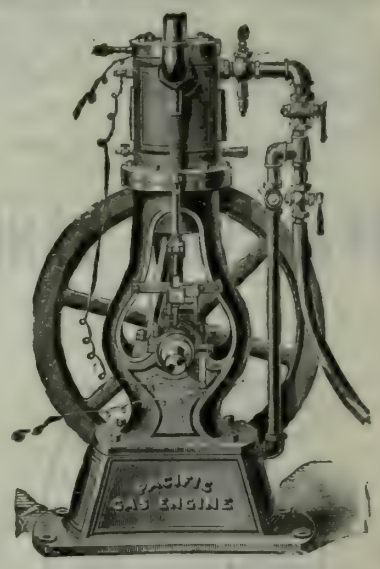

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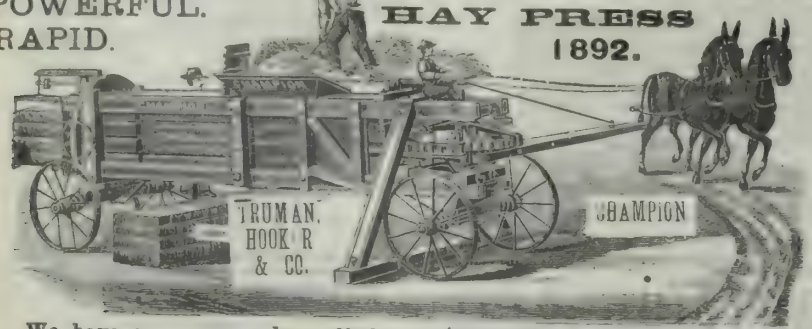

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PACIFIC RURAL PRESS

Vol. XLIV. No. 7. SAN FRANCISCO, SATURDAY, AUGUST 13, 1892. THE DEWEY PUBLISHING CO. Office, 220 Market St.

Luther Burbank's New Plums.

Notable results are already accruing from the wonderfully extensive and devoted efforts which have been put forth for many years by Luther Burbank of Santa Rosa. He has produced during the last 25 years something like twenty million hybrid and crossbred seedling plants, and the endless labor and outlay bestowed in hybridizing selecting, testing, etc., is now being more generally recognized, and some of the fruits and flowers originated by his labors are becoming household words wherever fruits and flowers are admired. We have from time to time alluded to this important work in the RURAL, and we are pleased now to mention three new plums of which early borne samples are sent us.

The first is a seedling grown from seed of Kelsey Japan plum crossed with pollen from Satsuma. It is a wonderfully fine fruit in texture of skin and flesh, and in fact is free from coarseness of any kind. It carries the rich dark color of the Satsuma, and in its upper portions shows the symmetry of that variety. Its lower half discloses the influence of the Kelsey upon its outline, for it has inclination to draw to a point, though to a much less degree than in the Kelsey. The flesh has the dark red of the Satsuma, somewhat lightened with the yellow of the Kelsey. Its flavor is characteristic and delightful, and suggests watermelon, grape, plum and apricot as its presence invades the palate. The pit is smooth, shapely and of medium size. The fruit seems to us to reflect in a notable degree the good qualities of both its parents.

Mr. Burbank sends us also two other crossbred seedlings. One, designated as "J," is a very handsome yellow with slight reddish clouding on the sun side. It is also built upon the Kelsey crossed in this case with the Burbank. It has rather more of the Kelsey shape than the fruit cross with Satsuma above described, but it is not nearly so uneven as the Kelsey. It has clear yellow flesh and a flood of juice of very mild, agreeable flavor. It seems to be a persistent clingstone.

Another new variety is marked "2," and is a cross of Kelsey with Satsuma pollen. It gives no intimation of the Kelsey shape, but almost fully reflects the Satsuma form. It is a dark color, plentifully studded with light yellow dots. It has a most beautiful deep red and almost translucent flesh, suggesting a mass of currant jelly. It is juicy and has a distinctly vinous flavor. The variety has points which will command wide attention.

These fruits are all good medium size, but smaller than good samples of either of their parent varieties. It is altogether probable that they will run larger when better grown. Mr Burbank, of course, fruits his seedlings in close rows first to determine which are worthy of further trial, and these specimens came from plants grown almost as thick as a hedgerow. We shall watch with interest to see what they will do when budded into a good stock, as Mr. Burbank will undoubtedly proceed to do.

The production of a few such varieties as the above should prove full consolation and reward for the labor Mr. Burbank puts forth. Of course, to get one such fruiting variety, he has to fruit hundreds, all the rest of which are probably altogether worthless through reversion to the wild type. But this is the price which the devoted originator of new varieties has to pay for his victories.

The Advance in Hog Product.

Within the past 60 days there have been several advances in the market value of hog product, with still higher prices expected to rule. The advances have been made in the face of a pack of 5,085,000 hogs from March to August 1st, against a pack of 4,285,000 hogs during the like time in 1891. Notwithstanding the pack this year shows an increase of 800,000 hogs, yet the stock of hog product at the East is remarkably light, so heavy have been the home and export demand. The marketing of a larger number of hogs has been brought about by the certainty of a large falling off in the corn crop and prospective higher prices for the cereal. The opinion that higher prices will rule for hog product is grounded on the fact that farmers have marketed or else have provided for marketing all the hogs they intend to before the new corn crop season sets in, and with fewer available hogs and light stocks of the product, combined with an excellent home and export demand for the latter, it will be quite impossible for packers not to take advantage of the favorable situation and put prices as high as the market will justify.

TOBACCO.—Tobacco at the Culp plantation at San Felipe shows the fine condition and excellent quality of a true Havana leaf. There are 50 acres which will yield about 50,000 pounds. Cutting is now in progress.

A Coast Range Foothill Orchard.

We have had descriptions and illustrations of the Sierra foothill orchards. On the opposite or western side of the great valley of California lie the foothills of the Coast Range, which are to some extent being used for orchard and vineyard planting. These foothills are, on the whole, less picturesque than those of the Sierra Nevada; they generally carry less forest and jutting rock, and their soil is of a more somber hue. And yet they have here and there trees and rocks and falling water fit to entrance an artist. But their greater area is gentle slope and rolling hills and their expanse seems almost illimitable. Unfortunately, however, a great part of the foothills on the eastern side of the Coast Range is in a region of deficient rainfall, and they have not above them the natural reservoirs of the snow-crowned Sierra.

A FOOTHILL ORCHARD ON STONY CREEK, IN COLUSA COUNTY.

There is a portion of the region of Coast Range foothills on the west side of the Sacramento valley which has abundant rainfall and kind, loamy soil and is admirably fitted for fruit production. The precipitation of moisture is far greater than on the plains of the valley, and catching the sun rays as they first surmount the Sierra Nevada, and holding them during long days, conditions are present which favor the production of early fruits. The hillsides and small valleys on the west side of the lower Sacramento valley have been famous for years in this line of production. It is now something of a question how far northward these favoring conditions prevail. Recent experience has shown that the northern extension of this region is greater than was once thought, and we are not prepared to set a bound upon it.

The picture upon this page shows a small orchard in the northern extension of the region to which we have alluded. It is situated in the Stony creek region of Colusa county, and it well portrays the features of the foothills on the west side of the Sacramento valley. Lands which have been used since the settlement of the State for hay or grain or pasturage have of late become diversified as in the engraving by the insertion of areas of fruit trees. Marked is the contrast at this season between the foliage of the trees and vines and the sere expanses of stubble or dry pasturage. Marked also is the effect produced upon the value of these lands when thrifty and productive trees give demonstration of the adaptation of the soil and situation to fruit production. All owners of such lands should put them to the test of such employment. It does not cost much to plant and care for a small orchard, and yet its influence upon the beauty of the country, the comfort of the home, and in many cases upon the value of the holding, are almost beyond estimate.

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ALFRED HOLMAN.....General Manager

Saturday, August 13, 1892.

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[NEW THIS ISSUE.]

Buggies, Carts, Etc.—California Wagon and Carriage Co.
Hay Presses—Truman, Hooker & Co.
Trees and Plants—Phoenix Nursery Co., Bloomington, Ill.
New Plants—Reasoner Bros., Oneco, Fla.

☞ *See Advertising Columns.*

The Week.

We seem to have had rather a narrow escape from a rain in August this year. At central coast points and even in the interior at the north there was everything varying from a sprinkle to a light shower. Fortunately it did not invade the regions where fruit is largely laid out on trays, or where the tiers of grain sacks rise like fortifications on field or river-bank. California has too much value out of doors now to tolerate the thought of a rain, and fortunately there is very little danger of it at present.

The astronomers are knocking their heads together about Mars, which happens to be somewhat nearer the earth than usual. If Mars could hear all that is said about him, he would douse his glim. According to reports, land and water exchange places more rapidly on his surface than they do on a good, lively real estate map.

World's Fair matters seem to be reviving, and in southern California are especially active. Now they propose to send a whole acre of bearing orange trees, a date palm 100 feet high, and Egyptian pyramids of jelly, etc. It looks as though northern California might have to growl over another southern boom in 1894. The southern people seem to know how to do it.

Persian Fat-Tailed Sheep.

A very interesting band of immigrants has been captured for California. It seems that Gen. Truxton Beale, an old-time Californian, while U. S. Minister to Persia, became interested in a race of fat-tailed sheep which are highly esteemed in that country. They are large, mutton sheep, coarse-wooled and weigh about 175 pounds, live weight. A part of this avoirdupois is the fat tail, which in some cases reaches a weight of six to ten pounds. From this oily appendage comes the common name of the breed. As a result of Gen. Beale's admiration, a present of these Persian sheep was made to the United States, and Secretary Rusk, to whose hands all such agricultural donations come, decided that the climate of California would suit these distinguished foreigners. The next conclusion was that C. P. Bailey of San Jose, the well-known Angora goat king of the Pacific slope, would of course know best how to dispose of this new ovine acquisition from Asia, and so they are coming consigned to his care. There are 17 sheep in the band and they are expected to arrive in San Jose next week. Mr. Bailey proposes to place one pair in Golden Gate Park and another pair perhaps at one of the University Agricultural Experiment Stations. Another pair will go to one of W. B. Carr's farms in Kern county, and the balance, for the present, will go to Mr. Bailey's Angora farm in Monterey county. Mr. Bailey ought, if possible, to take the sheep to the State Fair, so the people can all see their present from the Shah. Then there should be careful provision made for handling the band, to determine their value both as pure breds and for crossing. We have no doubt Mr. Bailey will do this with his customary enterprise.

A Concentration of Milling Interests.

During the last week there has been announced a notable concentration of flour milling interests in the central and southern part of the State. A few years ago there was a combination formed to control the chief mills in San Mateo, Santa Clara, Santa Cruz, San Benito, Monterey and San Luis Obispo counties, which seemed to work well for those inside, although it created hardships outside. The present combination includes a far greater group of milling interests, for it is stated that the mills owned by the new concern have an aggregate capacity of 6000 barrels of flour daily, and 12 of them are now running, giving daily employment to an aggregate of 1000 men in different cities of the State. The combination cuts a considerable figure financially, for the corporation is capitalized at $10,000,000 in paid-up stock.

The ostensible reasons for the combination, as stated by a director of the concern to a reporter, are given as follows:

"The idea is that we want to do business on a cheaper basis and put our stock on the market under better advantages. As it now stands, each millman takes all his risks singly. Now, in this corporation, if my mill should burn down to-morrow my product would go on just the same.

"But competition is done away with," suggested the reporter. "How about that?"

"Oh, yes, so far as we in the company are concerned there will be no competition, but we will not put up prices—on that we are determined. Overproduction and limited markets have kept us in check and prevented us from making any great money in the business. We hope to do a little better in the future under the new arrangement."

Apparently, the creation of a combination of this kind has the chance of coming between the graingrower and the breadeater in a way to work hardship to both. To the extent of its membership it removes competition in the purchase of choice milling wheat, which has often been keen between rival millers, and local wheat values were thereby advanced. On the other hand it prevents competition between these same parties for custom for flour, and though the combination is "determined not to advance prices," prices will advance by their inaction, unless mills outside of the combination keep them down. Fortunately, perhaps, there are many strong milling firms outside of the new corral.

It is true that milling combinations have not yet done much on this coast, but they have been a source of serious trouble to graingrowers in the central west, and, to a certain extent, here also. They have necessitated the building of mills by graingrowers in some instances. This is uphill and dangerous work. It would be far better for the graingrower to find a market in which healthy competition established fair prices, but there have been cases in which farmers have had to fight the devil with fire, and cooperation has been successfully invoked to contend with combination.

But we trust that we shall be spared the issues between graingrowers and millowners which have vexed and hindered the prosperity of other producing regions. We hope we shall not see another lot of dismantled mills and locked-out workmen, with the attendant loss and inconvenience resulting from the cessation of local grinding facilities. If the combination can work to advantage in extending the flour trade between California and adjacent States and Territories and to points of distant shipment, it will cure overproduction in a legitimate way. By increasing the demand and broadening the avenues of disposition, its work will be generally beneficial. If it is to reduce production by closing up mills, by forcing weaker rivals into bankruptcy, and to increase its profits by crushing down the price of milling wheat and running up the price of flour, its birth will usher in a period of discomfort and trouble which will not be for the benefit of the State. What the future will be will depend upon the aims and policy of the combination which are not officially stated, and upon its actions which are yet to be taken.

Florida Irrigation.—Upon another page may be found an interesting account of a Florida pumping and sprinkling outfit. In addition to the absence of high, flowing water in that State, because of no mountain sources, it seems that the State has no bottom to it which will hold water, so that artificial rainfall is the only practicable way to distribute water. Some who have tried to carry water in ditch or furrows, speak feelingly of its speedy disappearance. One man says he ran 250,000 gallons in a trench before it reached 900 feet distance from the source. Another man poured 10,000 gallons out of a tank and it did not travel ten feet. Another used 300,000 gallons to wet two acres of trees. No wonder they have to sprinkle. What else can they do in a State with no top and no bottom—just a lot of sea-foam rocking on the tide.

The Situation of Wheat.

In the month of June the Rural Press claimed that the wheat crop of the world would be less in this year than it was in 1892, and intimated that California No. 1 white shipping wheat was a good investment at around $1.40 per cental. This latter opinion we have every reason to believe will be fully verified before the fall months pass. Already our statement that there would be a short crop is being proven correct, so far as the first estimates go to show. Beerbohm, a recognized authority, places the yield, in bushels, of the leading countries as follows: United States, 520,000,000 (this is 9,000,000 bushels more than our estimate); Russia, 208,000,000; France, 288,000,000; India, 208,000,000; Hungary, 132,000,000; Italy, 116,000,000; United Kingdom, 64,000,000: Germany, 104,000,000. Total, 1,640,000,000 bushels, against 1,700,000,000 in 1891, and 1,726,000,000 in 1890. From the smaller producing wheat countries, the yield will aggregate less in this year than it did in 1891, so that it is safe to place the total outturn of all countries at about 75,000,000 bushels less in 1892 than it was in 1891.

In estimating the probable requirements, several important factors must be considered. The root crop in the United Kingdom is unquestionably very much larger this year than it was in 1891, but on the Continent, so far as we can judge from the most reliable information received, there is no material difference in the yield, but the rye crop will be larger—how much it is hard to estimate. In the United Kingdom the root crop, particularly that of potatoes, plays an important part in relation to wheat requirements, while rye is equally important on the Continent. Even with increased crops of root vegetables and rye, the shortage in wheat, with a short crop of corn in this country, cannot be made good.

The corn crop in the United States cuts no small figure in estimates as to the probable market value of wheat. The crop is now placed at 1,600,000,000 bushels, against over 2,000,000,000 bushels in 1891, with the season from two to three weeks late. If a heavy frost should in next month visit the corn belt in the central States, then the estimated crop of 1,600,000,000 bushels will be cut down very materially, and the markets for wheat and corn make a rapid advance, for corn, as an article of food and of feed, cuts as important a figure in the United States as do the root crops in England and rye in Germany. When this country has a large corn crop, more wheat is available for export, and vice versa when the corn crop is poor to fair. Estimating on this basis the probable wheat surplus which will be available for export in the United States the present season, it is quite safe, even with a large increase in the carryover from the season of 1891–92, to estimate it at not to exceed 150,000,000 bushels, against 224,831,843 bushels in the season of 1891–92 out of a total crop of 611,780,000 bushels. That the estimated surplus of 150,000,000 bushels from the present crop is now too small, but may possibly be too high, we give the following: From the crop in 1882, which aggregated 504,185,000 bushels, there was exported 147,811,316 bushels, and from the 512,765,000 bushels yield in 1884, there was exported 132,570,366 bushels, and in both of these years the yield of corn was larger than is the estimated yield in this year.

Mr. Koebele's Return.—Albert Koebele, the Government entomologist, has returned from his search for beneficial insects in Australia, and is now at his home in Alameda. He brought additional supplies of the insects already named in the Rural, as previously sent by him, and he expects them to demonstrate their value here as he saw it demonstrated during his travels.

Rights in the Case.

Rural New Yorker.

Here is the reasoning of some newspapers and United States Senators on the strike at Homestead. 1. The tariff has enabled the Carnegies to make more money than they could have made without it. 2. This wealth was created by the labor of the workmen. 3. The workmen have a moral right, therefore, to seize a portion of that property and hold it. There is a tariff of five cents a dozen on eggs and just about that much difference between the prices obtained by American and Canadian farmers for this product, as quoted in the Toronto and Buffalo markets, According to this the farmer gets more for his eggs than he would were the Canadian product free. This, we say, is the theory. Now if some large poultryman had trouble with his hired man over wages, would that hired man be justified in claiming a share of the eggs? His labor has made the business possible and the tariff has helped the farmer make money out of his hens. If the Homestead men have a right to share Carnegie's property, the hired man has a right to take at least one egg of every dozen, What *are* the rights of the laborer? Where do they begin and end? The answer to this question will have much to do with the American future.

From an Independent Standpoint.

General Weaver arrived in California last week and is lending to our presidential campaign not only the interest of his presence, but the force of effective private and public speech. No affectations of dignity are allowed to limit his campaign activities. He goes up and down the State in the most Democratic spirit, talking freely and cordially with all who visit him, and addressing public meetings wherever he stops overnight. Mr. Weaver says nothing particularly new, but he says the old things exceptionally well, attracts large and attentive hearings everywhere and is unquestionably making votes for the People's party. The RURAL does not believe, with Mr. Weaver and his political school, that the country is going to the dogs. It sees plainly enough that times are hard and believes that a good many reforms are needed to establish uniform justice in the country; but it does not believe that all the evils of the time can be cured by changing the laws. Much less does it believe that such changes as Mr. Weaver proposes would do the country good. The sub-treasury scheme and the silver coinage scheme, if put into effect, would, we believe, plunge the country into such distress as it has never before suffered. Mr. Weaver and his associates stand chiefly for policies that have failed time and time again in other countries, and which the most intelligent judgment of our own country and times condemns as false and vicious. We believe with the People's party in an honest and economical government; in government ownership of railroads and telegraphs; in the policy of holding American lands for American settlement, and in many other lines of public policy; but we oppose with the earnestness of profound conviction those financial theories which we hold to be based upon false principles and which we believe would lead to widespread ruin. We speak thus plainly knowing well that other expressions would be more acceptible to many of our readers, but with a newspaper as with a man, there is no decent rule of conduct save the rule of honesty. To be fair with its readers, the RURAL must speak out its honest judgments of things, and believing as it does, it would be false to its duty if it did not warn the farming community of the Pacific coast against the financial heresies of Mr. Weaver and those who stand with him. We do not question their honesty, but we believe that they are wrong.

We cannot believe that these financial heresies have taken such hold upon the public mind as their promoters assert. Within the past few weeks we have talked with scores of farmers, men of repute for honesty, common-sense and public spirit, and in almost every case the opinions expressed have been in accord with our own. We are not, we hope, violating a confidence of social life in quoting the remarks of Hon. I. C. Steele of Pescadero in this connection. I believe, said Mr. Steele that the Government should issue all the money of the country, and that every dollar it issues should be the equal of any other dollar; that whether it be gold, silver or paper it shall be a full dollar in value. I believe in the use of silver, but I want a dollar's worth of it put into a dollar. We are not able to quote Mr. Steele exactly, but the above is substantially what he said. Another man, who never says in private what he] is not willing to say publicly, and whose expressions we therefore feel safe in quoting, is Hon. W. L. Overhiser, of San Joaquin county. I believe, said he, in the free coinage of silver, but I want the bullion in the silver dollar to be worth a dollar. We might quote scores of others, but they all come to the same thing. This, we believe, is the sentiment of those who have studied the question and whose business experience and general character entitle their judgments to credit. These men are not blind to the disadvantages of a single standard; they are not blind to the evils of the steadily enhancing value of gold; they see the danger as plainly as Mr. Weaver and his associates, but they have not lost their heads, and they know that old diseases are not cured by new ones—they are not willing to throw the country into fits in the hope of curing its ague. To such men, men of business sense and judgment whose motives are above question and whose intelligence enables them to study public questions fairly, and from the standpoint of the producing farmer, the public should listen rather than to glib talkers who find profit and public distinction in promoting "reforms." The judgment of one such solid man of common sense is worth that of a hundred professional agitators.

But it is not to be doubted that the People's party will command a large vote in California this year. Its chief promoters, in reckoning their strength, point to the 33,000 members of the Farmers' Alliance in California and to an equal or greater number of trades-unionists, and assume that all will vote the Weaver ticket. Of course this is an extravagant estimate. The greater number of farmers, as well in as out of the Alliance, will be guided by their old party affiliations, and the same is true, if we may credit the head of the American Federation, of the trades-unionists. Men are loth, in politics, to depart from old associations, and there is nothing in the present situation of the country to make them do it in anything like wholesale numbers. And yet, there are oftentimes great surprises in the election returns. Who would have supposed, for example, that the People's party would poll nearly 15,000 votes in the recent election in Oregon? True, it was only a minor election, a time when men are much less scrupulous as to their political action than in presidential elections, but the returns surprised the most acute political guessers, and there may be the same sort of surprise in store for California this fall. But assuming that the People's party support will be large, we do not believe that it will rest upon the positive quality in the Omaha platform. It rests not upon the silver and sub-treasury heresies, but upon the just discontent of the country with the old parties. The corruptions of politics—both Democratic and Republican—in this State, the shameful rule of the city rings in the legislature, the cowardice of both parties in allowing railroad and other corporations to fatten at the expense of the producers—these are the evils that have made political disgust widespread in California; these have driven into the new party thousands who feel they cannot remain in their old political relations without loss of self-respect. They love not the new so much as they despise and loathe the old.

In an article printed in the *North American Review* for July, Mr. Samuel Gompers, president of the American Federation of Labor, said:

> To support the People's party under the belief that it is a *labor* party is to act under misapprehension. It is not, in the nature of its make-up, a labor party, or even one in which the wage-workers will find their haven. Composed, as the People's party is, mainly of *employing* farmers, without any regard to the interest of the *employed* farmers of the country districts or the mechanics and laborers of the industrial centers, there must of necessity be a divergence of purposes, methods and interests.

In the following, which appeared last week in the telegraphic columns of the daily press, there is something like practical confirmation of Mr. Gompers' remark:

> ST. PAUL, Minn., Aug. 2.—General James R. Baker, the Alliance candidate for governor of Minnesota, this evening wrote a letter withdrawing his name from the field. This leaves it to the other wing of the party, headed by Ignatius Donnelly. It is stated that the Alliance wing, numbering approximately 20,000 votes, will join the Democrats. The Alliance faction will make its fight in the legislative districts.

Nothing is truer than that there is no basis for permanent political association upon class lines between the farmers of the country and the trades-unionists. The former, as Mr. Gompers truly says, stand for the interests of *employers*, the latter for the interests of the *employed*. The Homestead affair affords an illustration. The farmers of the country stand, almost to a man, with the mill-owner who claims protection for his property and for his right to employ whoever may be willing to engage in his mill upon terms mutually agreeable. They are outspoken in opposition to that spirit which would make the dictum of the trades-union the law of the land as between employer and employed. On the other hand, the trades-unionists, so far as they have spoken, are with the strikers heart and soul and support them to the last of their demands. Manifestly here are elements that will not mingle, and no amount of pressure can for any long time hold together. From the brief dispatch quoted above, it appears that in the wreck of the party in Minnesota the trades-unionists have gotten away with the organization, leaving the Alliance wing out in the cold and with no resource but to make itself as comfortable as possible with one or the other of the old parties.

If those who fondly imagine the United States to be the foremost country of the world in the work of political and industrial evolution will fix their attention upon the far-off continents in the south seas, they will find that we have fallen behind in the race. While we have been talking about the eight-hour day, Australia has established it; and while we are merely suggesting Government ownership of railways, there it is an accomplished fact. The *Review of Reviews* notes that the Victorian administration is about to introduce a bill for the establishment of boards of conciliation to prevent strikes and lockouts, and another to authorize the loan of public money at three per cent to farmers wishing to buy land and build homes. This last measure is certainly very radical, but an American critic, the *Christian Union*, points out that the loan it proposes is certainly less hazardous than the loan our own Government contemplates making to the Nicaragua Canal Company. The fact that the money is lent to the poor to be spent at home, instead of lent to the rich to be spent abroad, does not make the measure any more objectionably socialistic. Besides these innovations in Victoria, another quite as striking has been made in New Zealand. The Parliament there has enacted a law assessing land and improvements separately, and exempting improvements when valued at less than twenty-five hundred dollars. At this point, however, the legislators depart from the principle of the single tax, and accept that of progressive taxation. Improvements worth more than twenty-five hundred dollars are taxed at a gradually increasing rate, which is the same as that upon land when the improvements are valued above fifteen thousand dollars. For landed estates valued above twenty-five thousand dollars, still another progressive tax is established, which rises from the rate of five cents on the hundred dollars where the estate is worth less than fifty thousand dollars, to over a dollar on the hundred where the estate is worth more than a million. Altogether the property of the very rich is taxed at about double the rate imposed upon the property of the poor. New Zealand has for many years applied a similar principle in the taxation of inheritances. This earlier law, though it has not prevented the creation of greater and greater estates, has at least checked this process, and sensibly lightened the burden of the wage-earners and property-owners. The new law simply makes another great stride in the same direction.

Those English statesmen and journals who are fond of satirizing American political incidents might, if they would trouble themselves to look about them, find better amusement closer at home. It would perhaps be deemed uncivil to remind them of the Irish election scenes, but it was in an English town, we believe, that sand was thrown into Mr. Gladstone's eyes a few weeks ago. A more recent incident worthy of note was the entrance last week of Mr. Hardie, the champion of the "Labor interest," into the House of Commons. He drove up in a four-in-hand covered with flaming posters and loaded with a yelling crowd of his supporters. He was dressed, with studied affectation, in workingmen's clothes, greasy and dirty, and advanced, cap on head, to take the oath. In contrast with this sort of thing, "Sockless" Jerry Simpson's conduct is the pink of refinement. Our English friends would do well to look after their own "motes" before hunting for our "beams."

The British Medical Society has been looking into the so-called "gold cure" for drunkenness, now largely practiced in this State and elsewhere, and after full examination condemns it. The substance which is injected into the blood of the patients was found to contain no gold at all, but to be water so charged with poisonous drugs as to be more intoxicating than wine. Atropine, the well-known paralyzing agent, is the chief ingredient. The RURAL frankly confesses its satisfaction at this report because from the beginning it has held the so-called cure "under suspicion." It has seemed, as we have viewed it, to be instinct with quackery both in its pretentions and in its methods. It has seemed to us in opposition to the whole true principle of enduring temperance reform, in that it makes men sober through narcotic effects rather than by the development of their rational and moral powers of self-control. It affords for drunkenness the same sort of "cure" that chloroform affords for physical pain. The only thing to be said for it is that it holds the patient to an enforced sobriety for a time and thus affords opportunity for sober reflection upon his condition and for the making of new resolves. But this advantage must be obtained at dreadful cost to the constitution, and it would unquestionably be better to lock the patient up for a time, keep intoxicants away from his reach, and thus secure a respite of temporary sobriety in which his better nature may be worked upon in the legitimate ways of warning and persuasion. This is old-fashioned treatment, and it will probably remain in reputable practice when the Keely craze is forgotten. After a few more Keely "graduates" have died of heart failure, a few more suffered paralysis, and a few more gone insane, people will stop and call their common sense to judge if it be wise to enforce suicide upon the nervous system even for the sake of being sober for a few weeks or months.

The State Fair.

Preparations for the grandest State Fair ever held in the State are progressing satisfactorily. At a meeting of the State Board on Monday, applications for space both at the park and in the pavilion were in excess of supply. At the former the demand for stallroom is already so great that the directors do not yet see the way clear to accommodate all the applicants. The directors are greatly impressed by the magnitude of the historical exhibit, and will have to erect an immense temporary building near the pavilion to contain all the articles promised for that department. The exhibition promises to excite wider interest than ever before since State Fairs have been held in this State.

Weather and Crop Bulletin for Week Ending August 8th.

The crop conditions, as reported for the week ending Monday evening the 8th inst., show that the weather has been somewhat warmer than during the previous week, while the outlook is about the same, viz.: A good yield of barley and hay and a fair yield of wheat. The fruit crop will be short of the average. Bartlett pears, peaches, nectarines and other fruits are being shipped daily in carloads to the East. The weather has been generally cloudless throughout the agricultural districts of the State. A slight sprinkle of rain was reported from Tehama and Butte counties. The grain crops are all secured and fruit is being rapidly harvested. The well-known fact that the climatic conditions of California remain nearly the same from now until October leaves little of interest for correspondents to report; hence the failure of nearly half the regular number to send in reports.

SHASTA.—*Anderson*—The temperature for last seven days has been about normal, reaching 100 degrees. The lowest temperature was 58°. Fruit is ripening very fast. Three carloads of fruit were shipped from Anderson to Chicago during the week, and three carloads will be started for the same destination during the coming week. Reports from Fall River are good and wheat and grazing fine. Harvesting is about over here.

HUMBOLDT.—*Upper Mattole*—The highest temperature recorded during the past week was 94°. The lowest temperature recorded was 56°; mean temperature 64°. Harvesting progressing satisfactorily. Wheat is very plump, but not very full in the head and will be nearly an average crop. Corn and potatoes late, but doing well.

LAKE.—*Ma Tel Vineyard*—The weather continues very seasonable, though possibly a little cool. Threshing is well along and the crop is up to the expectations. Fruit is very scarce and commands ready sale. Grapes are doing well, but warmer weather would be better for them.

SONOMA.—*Healdsburg*—Average weather has prevailed during the past week, with some foggy mornings and some warm days. Fruit is ripening nicely and hops are doing well.

Santa Rosa—General conditions unchanged since last week. Fruit is ripening slowly, but fast enough to make it of a splendid quality. Canneries are running full blast and prices are firm. Hops are growing well and promise a fair yield. In some sections there will be a good crop of grapes.

SACRAMENTO.—*Sacramento*—The temperature during the past week has ranged from 10° below the normal to 8° above, the average for the week being 4° warmer than the normal. Fruit and vegetables are coming into market in fair quantities and commanding good prices. The sunshine has been normal, but has given an increased amount of heat. There has been no rainfall, which is normal, but very few clouds have been observed. The hop crop was but slightly injured by the high winds of Sunday.

Franklin.—The weather has been cool, with the exception of one or two hot days. Harvesting is very nearly finished and the crop has turned out very satisfactory, but the prices have ranged low.

NAPA.—*Napa City*—The carload of fruit that leaves here today for Helena, Montana, includes apples, pears, peaches and grapes. It has already been sold for the Napa valley fruitgrowers by L. R. Tull, at prices ranging from 90 cents to $1.25 per box delivered on the cars. The first part of the week the temperature was slightly above the normal, and the latter part somewhat below the normal; weather has been foggy during the mornings, with warm afternoons. The fruit is doing well, as are also grapes, but the latter will be late.

SUTTER.—*Yuba City*—The weather has been cooler than the average. The first of the week a few light showers of rain was precipitated. Fruit is coming in lively, while shipping, canning and drying are being rapidly carried on. Corn, etc., is maturing well and hops ripening slowly.

YUBA COUNTY.—*Wheatland*—Weather very favorable for harvesting, which will last another three weeks, and the yield will be a good average. The peach crop is good. Hops are doing well and will be a fine crop.

SOLANO.—*Denverton*—The summer has been a remarkably cool one with but few warm days. Threshing is nearing an end, and the wheat yield is a little below the average expectations. Barley is up to the average.

AMADOR.—*Oleta*—Highest and lowest temperatures 98° and 64°. Nothing new. Warmer than usual and threshing in full blast.

STANISLAUS.—*Oakdale*—The farmers are generally better satisfied with the temperature for the past seven days, as it has enabled them to begin work earlier in the morning, still they are of the opinion that if it were a little warmer it would be more beneficial to them. The general opinion is that, with the exception of a few favored spots, crops will be light. The fruit crops in this vicinity are good. On Monday evening, August 1st, there was a meteoric display. Shortly afterward the sky became clouded, and at 10 P. M. a few drops of rain fell, the air being very sultry.

MONTEREY.—*San Ardo*—The weather for the past week has been very warm. Highest temperature 105°, lowest 47°. Fruit is about three weeks late, but is ripening rapidly. The grape crop will be light, owing to late spring frosts and the unusually light rainfall.

Salinas.—The grain and hay crop of this locality will be a full average or better. Hay better in quality than usual. Apple crop probably light. Potatoes a fair crop. Beans, etc., light.

TEHAMA.—*Red Bluff*—The temperature was below the normal, with a trace of rain here and at Oroville on the 2d. Fruit has ripened quite rapidly during the week.

LOS ANGELES.—*Los Angeles*—The warm weather during the past week has been beneficial for fruit-drying and ripening of crops. Figs, table-grapes, plums and nectarines are in market. Muscats late.

SAN LUIS OBISPO.—*San Luis Obispo*—We have had a warm week, and all crops have suffered excepting those on the river bottoms and moist land. On Saturday the heavy fog cooled us off a little. We may now expect cool weather. Highest temperature during the week was 95°. Our Arroyo Grande fruitgrowers have a new market at the Santa Maria cannery, and are shipping a goodly quantity of apricots.

ALAMEDA.—*Pleasanton*—Cool weather continues with brisk coast winds. Thrashing is nearly completed, the yield being a fair average in quality and quantity. Hops are looking well, but picking will be later than last year. Sugar beets promise a heavy yield, and are rapidly increasing in saccharine, recent tests showing 13 per cent sugar with 90 per cent coefficient purity.

SAN JOAQUIN.—*Lodi*—Highest temperature, 96° on the 5th; lowest, 54° on the 3d, with light westerly winds. Wheat harvest drawing to a close. The output generally speaking is below expectations, quality varying from fair to excellent. Watermelons are plentiful and of fine quality. Peach crop short, but quality good

COLUSA.—*Williams*—Temperature and sunshine about the average and conditions favorable.

FRUIT MARKETING.

Fruit Shipments to English Markets.

The second consignment of fresh fruit for London, which left this city two weeks ago to-night, will be due in London to-morrow morning, and better prices are looked for than were obtained for the first shipment, as the Londoners have had an opportunity to test the good quality of the fruit.

The third of the special London fruit trains, which left Sacramento a week ago last night, arrived in New York yesterday, and the fruit will leave there to day by steamer for London.

The fourth train will be started from here to-night by the California Fruit Transportation Company. The train will be loaded entirely by A. T. Hatch of Suisun, and will consist chiefly of pears.

In Agent Appel's opinion, the most important thing to be considered just now is the matter of the condition in which the fruit reaches its destination. If all the shipments should be as successful in this respect as the first, there is no doubt that good paying prices will be realized in a short time. The people of London will soon learn by experience that refrigerated fruits are just as good as any other.—*Record Union*, Aug. 8.

While the prices realized on the first shipment of California refrigerated fruit to England were not very satisfactory to the fruitgrower, A. T. Hatch declares to a reporter of the *Bulletin* that he is not discouraged. When spoken to on the subject, he said it was necessary to overcome the same feeling that existed when the first shipments were made to the domestic markets. In New York and Chicago they would not at first take the fruit out of refrigerator cars for fear it would not keep. They would not take it at a low rate even, until they found out by his persistence in shipping it that it was not only better, but would keep better than fruit that had not been kept in refrigerator cars.

Mr. Hatch, turning to his dispatches, quoted to the effect that the pears sent by him arrived on the Majestic in a green condititition. The trade wanted green pears, but no plums. That, he believed, would prevent anybody sending any more plums. He had a notion, however, to keep right on with his shipments. He lost money at the beginning of his domestic shipments, but made money by keeping them going. The fruit had been shipped to England in the same packages shipped to the East, and the fruit had been picked in the same condition as picked for New York; very nearly, if not quite as ripe as when sent to the packer.

The cost of sending the fruit was $4.25 per hundred and refrigeration cost $1.62½ more, 20,000 pounds forming a carload. His first shipment consisted of pears, peaches and plums.

"Instead of being discouraged," said Mr. Hatch, "I have spoken for three cars for to-morrow, and I have spoken for the next train if I can get it." The boxes of Bartlett pears averaged 40 to 50 pounds and there was nothing in them at 10s. That didn't pay expenses. Souvenirs brought 16s. Twenty shillings a box was about as low as they could afford to send them to England for, considering the price that could be realized in New York. The Columbia plums sold at 10s. The boxes were only half the size of those containing Bartlett pears. He didn't lose anything on them, but probably came out even on them, considering the sales in New York.

W. H. Mills Suggests a Plan.

At the meeting of the State Board of Trade on Tuesday afternoon an outline of a plan for the marketing of California fruit, suggested by W. H. Mills, met with considerable favor from the members present. He proposed that California fruit be marketed through the eastern and middle States substantially the same as oysters are sold by the oyster trains that leave Baltimore every day. These trains, Mr. Mills said, are loaded with oysters only, and the train travels all through the different States on a regular time schedule, distributing its contents at various places in proportion to the demand in each locality. At some places one sack is left, at others 50, at others more. In this way the train distributes its freight all over the country, reaching millions of people, and the whole load is gone before it has time to spoil.

The same method, Mr. Mills said, could and should be applied to the marketing of California fruit. It would then be possible to reach twice the number of people in half the time that it now does, and fruit would not be hauled to Chicago, past Iowa, only to be shipped back again to that State or possibly not to reach there at all.

Private companies run the oyster trains and it is deemed the best plan. A committee of three, consisting of E. J. Gregory, president of the board, E. W. Martin and L. C. McAfee were appointed to visit John J. Valentine, president of the Wells-Fargo Express Company, to see if that organization looked with favor on the matter and also to invite him to assist in the discussion of the matter at the next meeting.

Good for Shippers.

Through the efforts of Messrs. Wetmore Bros. and other commission merchants of this city, arrangements have been effected with the San Francisco and North Pacific Railroad Co. which will prove a great benefit to fruit and produce growers along this line. The accompanying letter explains itself:

OFFICE OF S. F. & N. PAC. RAILROAD CO.,
SAN FRANCISCO, July 29, 1892.

Lusk & Hughes and 30 other Commission Merchants.—GENTLEMEN: Replying to your communication of July 23d, I beg to state that commencing Monday, August 1st, and continuing until further notice, we will deliver fruit and other perishable produce from our freight sheds, corner Front and Vallejo Sts., at 5 o'clock A. M., as you request.

H. C. WHITNEY, Gen'l Manager.

How to Hoe.

PLYMOUTH, MICH., Aug 5, 1892.

TO THE EDITOR:—It may seem invidious and in bad taste for a layman to presume to criticise an editorial, such as appeared in the PRESS of 30th ult., entitled "The Man with the Hoe;" but the good nature of the editor emboldens me to venture a few thoughts on this seemingly simple operation. The one who wrote that article evidently understands handling the pen better than the hoe. Hoeing is an art, one of the fine arts of the husbandman. One definition of a hoe is, "A garden tool for weeds, to cut with a hoe;" and it is a very good one, too. It was originally used as a method to dig up the soil; but modern inventions of the cultivator has superseded this use of the hoe, and now it is used, or should be used, to cut up the weeds; and this can be done most effectually by having a sharp hoe, and drawing it in a slightly slanting direction over the surface of the ground, cutting off the weeds just below the crown of them, and not by digging into the soil with one corner of the hoe. Digging up the weeds in this way might answer in the dry, warm climate of California, but would not answer where there is irrigation or rainfall, as the bit of earth dug up with the weeds would be likely to cause them to grow again. The boys at the agricultural colleges where the writer has been employed used to remark, "Any fool ought to know how to hoe;" but they soon showed they were the fools, by their awkward motions with the hoe. It requires judgment and skill to hoe effectually and with ease, as in every other operation. "Every man to his trade." Hoeing, like every other art or trade, must be chiefly learned by practice, and we Easterners, of necessity, have more practice with the hoe than those living on the Pacific slope, where machinery is more generally used. J. S. TIBBITS.

Just so: now if our friend will read over again the article he criticises, he will see that the statements related especially to California conditions and to midsummer work. Special mention was made of February work in moist soil as different from that to which the writer refers. It was soil-stirring to prevent evaporation for which the writer used both the hoe and the pen. Of course, in orchard, vineyard and fieldwork, this is done with the cultivator, but in the house garden the hoe must be used both for vegetable and flower-growing. Wherever practicable, gardens should be arranged for horse cultivation, but this is not always practicable nor desirable. The writer knows about the style of hoeing which our correspondent speaks of; in fact, he was brought up on it. It was simply because this style of hoeing will not do for the summer season in this State that the subject was commented upon. We can hoe Eastern style from December to April, and gently lift off the weeds below their root crowns with all the grace which our correspondent taught his schoolboys, but weeds are not concerned in our midsummer hoeing. There is not one in sight. The question is simply that of soil-stirring to prevent crusting, and for this the airy, graceful hoe-touching is a delusion. A certain depth of pulverization must be had, and in much garden work it must be done with the hoe.

It was mainly for people who have come here recently with such notions of hoeing as our correspondent has that we wrote of summer work with the hoe. Eastern people may know more about weed-cutting in moist soil in summer than we do, and they often come here with the idea that because weeds do not grow in summer there is no use in continuing summer cultivation. A season or two of local experience usually teaches better.

Tin Collar for Cankerworms.

SAN JOSE, Aug. 6, 1892.

TO THE EDITOR:—I well remember when visiting The Willows fruit-growing district, near San Jose, Santa Clara county, in the early part of the spring, I noticed the farm hands shoveling dry earth up in the branches of fruit trees and, when done, hundreds of cankerworms would hang down on a thread-like fiber. This is a very expensive way to remove this pest, indeed.

While visiting San Jose Grange on Saturday last, a fruitgrower, Mr. M. Wingate, had to tell something that he had found out, which was told "for the good of the Order." He said that he had ordered 500 tin collars to be made, some of large size which would cost 3½ cents each, and smaller ones at 3 cents, and that his neighbor, Mr. Leigh, was going to get several thousand of the collars to prevent the cankerworm from going up the tree. His experiments were such as to convince him this was better than the old way of placing paper around the tree and then ink or tar to prevent the worm going up in the branches.

The collar must be placed snugly up to the bark. A small piece of bale rope is good to tie around the tree and then tack the collar around the rope to make a good fit, to prevent the worm from crawling up the tree. This will allow a place for them to go and lay the eggs. Take them of and burn them, and no more shoveling will be required.

The worm cannot get over the outer rim of the tin collar. A large number of fruitgrowers prefer printers' ink to any other thing used, as it keeps soft and does not get hard like the tar or oils.

October is the month the worm commences to travel. It may be well for the readers of the RURAL to see how this device succeeds. W. H. MURRAY.

PETALUMA'S new silk factory will be ready for work in few days, the building having been completed.

HORTICULTURE.

Hints on Orange-Growing.

In our issue of July 16th we gave some paragraphs from n essay read by H. H. Wheeler of Riverside at a recent armers' Institute at Pomona. The following are other iggestive portions of the same essay:

As to location, all agree in recommending the high mesa nds and the interior valleys. For soil I would choose the arm, well-drained, chocolate-colored, sandy or gravelly am. This is much more easily worked, and requires, I elieve, considerably less water than any other. I have me reason for thinking that oranges grown on soil similar the best of that in my neighborhood have better keeping nd shipping qualities than those grown on the brown clay-h sand of Riverside or the reddish-brown sandy clay of edlands. If you choose some of these kinds, see to it at you do not select real estate with a cement-like sub-il nearly impervious to water, and quite so to the tap ots of your trees. (Since writing this, I have learned at some very fine oranges are raised in Riverside on this ind of soil, but it was hard work to subdue the ground and stablish the trees, and it is well known how large an mount of water it requires.) Since the orange luxuriates warmth, a southern exposure is best.

Avoid locations where damaging winds prevail, if you an.

The situations above described will probably be free from evere frosts. Do not attempt to grow oranges where, for everal nights in succession, the mercury falls to or below e point marked 24° Fahr.

Now that we are ready to set out our orchard there are everal ways and months in which it can be done. In lo-alities practically free from frost I would plant almost any ime from the first rains until July. If everything were eady, I would plant after a rain in November, and I have ad equally as good results with planting in the middle of uly as at any earlier date, but would not recommend it. February, May and June are favorite months for planting. One can set out the young plants he has raised and grow a eedling orchard; he can plant larger seedling trees and ave them fruit sooner. Here comes the question whether n orchard of seedling orange trees will eventually be more rofitable than an orchard of budded fruit of the same age. do not see how this can be answered with any degree of atisfaction. The seedlings bear more, but cheaper fruit. More of the budded trees can be planted to the acre; they ear less, but much more valuable fruit. According to my rithmetic, if a seedling orchard is started from year-old lants and another of budded fruit, say Washington Navels, rom two-year-old trees, at the end of 12 years, present rices prevailing, the budded trees would be of the greater alue—under favorable circumstances and similar condi-ions. At the end of 15 years the value of the budded fruit will still lead; and at 20 years of age one could still afford o pay much more for the orchard of Navels than for the ne of seedling trees. But such computation is utterly use-less since no one knows what will be the relative values of the different kinds of oranges 20 years hence, or whether or not there will be any orange groves; and one might not be missing it far to think that possibly the question of profit may, in that year of grace, be settled by some communistic scheme of life.

To return to our planting. If one is to start an orchard of budded trees, there are, likewise, several courses to pur-sue. The young ptants can be set in orchard form and there budded, or one can plant larger seedling trees, say four to eight years old, and have them budded. If trees of uniform size can be had, and the budding is successful, one will get a fine large bud growth, and the orchard will soon be in bearing order. This method requires some skill, great care and attention just at the right time, but is an admirable way to start a budded orchard. In setting out budded trees, I prefer good, stocky, low-headed two-year-old trees. A large, thrifty year-old bud is nearly, if not equally, as good. Such trees will have less need of staking, better resist the attacks of rabbits, and not be so seriously damaged by frost. We might ask some who have lost many trees during the past winter, would it not have been economy to have paid a dollar, or two if necessary, for a large, stocky tree, and not fifty cents for a tree like a riding whip?

During the past three or four years a vexed question has been one about the merits of sweet stock and sour (or native Florida) stock. I already hear a hoarse murmur arising, and fearing that I shall be mobbed from this hall, will prolong my life by avoiding its discussion altogether, and simply say that anyone can easily ascertain the rela-tive market values of orchards planted with one or the other variety.

In starting an orchard of seedling trees, I would cer-tainly bud into seedling stock, and select buds from trees known to bear fruit marked by uniformity of size and ex-cellence of quality. The arrangement of trees in the or-chard according to the septuple or triangular plan is com-mendable because it allows of more trees to the acre, and cultivation in four different directions with equal con-venience.

WINDBREAKS.

At this stage an important consideration is the planting of windbreaks—emphasized by the experience of last sea-son. It would even be well to have one planted a year be-fore the orchard is set out, if possible, but not many years sooner because it is very hard to make trees live which are set out near a windbreak three or four years after it is planted. The eucalyptus, pepper and cypress are the trees most used for this purpose, and some think olive trees will serve a good end in protecting our groves from wind-storms. The eucalyptus, pepper and cypress will take moisture from your orchard to an alarming degree, and make necessary extra care of the adjacent row of orange trees. If your soil is quite free from large stones, it will probably pay, once in a few years, to dig a trench three or four feet deep between the windbreak and the row of or-ange trees next to it. Of these three, I prefer the stately but ugly gum tree. The pepper can't be planted close enough to make a protecting wall. The cypress has a mysterious way of dying in the prime of life; while the gum tree is of rapid growth, can be trimmed up high to let in the sunlight, and yet has a lofty top to arrest the force of winds, can be cut down in the vigor of its ex-istence and yet quickly grow into usefulness again. If the olive shall prove to answer this purpose, it will make the most handsome and profitable windbreak.

It may be well now to stake the trees—certainly if they are small willowy affairs unable to hold up their heads alone. A stout, stocky tree does not need a stake to keep it erect; nor to train a central stem, for that is not the man-ner of growth of a Washington Navel, but only, so far as I can see, to keep the wind from moving it and loosening the earth around the base of the trunk, and so, possibly, doing harm by letting air in to the roots. Also, wrap them to keep off the festive rabbit and to protect the trunk from the sun. It may also save your tree in case of severe frosts.

CULTIVATION.

The next thing to attend to is cultivation. Cultivation of the soil, as we speak of it, is stirring it in some way by some implement. That may mean a plow, harrow, hoe, or one's fingers. The essentials of perfect orchard cultivation are, in my opinion, lifting the soil and pulverizing it as completely as possible, leaving it level or free from ridges and keeping down weeds. The acme of cultivation is to have the surface soil to a depth of two or three inches in the mechanical condition of road dust. The standards and teeth of a good cultivator should curve and slope for-ward; be narrow, so as to leave as low ridges as possible, and so close together as to practically stir all the ground. None of the cultivators quite suit me. But, you say, a cultivator with a low head or frame, and teeth very near together, will clog with weeds and trash. My dear friend, *don't grow weeds, grow oranges.* Furthermore, a cultiva-tor with teeth very near together will thoroughly cultivate by going all over an orchard in two directions, while with the present styles cultivation in three different directions is necessary to completely pulverize the soil. I do not think a constant or frequent use of an ordinary harrow advisable; it tends to pack, and not raise, the soil.

Now I see many of you shake your heads as I say I do not approve of plowing my orchard. (Bear in mind that I refer to our gravelly loam.) One objection is, that it throws the land out of shape for irrigating; another, that it destroys too many fibrous roots; and a third is that it takes more time, and, as far as I know, does no more good than a thorough pulverization by a good cultivator. I have not put a plow into my orchard for five years, and do not intend to so long as I can raise oranges as good as are now grown there; nor do I deem deep cultivation necessary. I wish some one would disprove the statement that three or four inches of finely pulverized, dry surface soil will retain all the moisture that can be retained, as well as six, eight or twelve inch plowing or cultivating.

Plowing brings up the subject of turning under a large growth of weeds. A man recently said to me, "I know I am improving my soil by so doing." I admit that he may be improving his soil mechanically—making it more fri-able—bnt I greatly doubt if he is adding much plant food to his soil. Some plants derive much nourishment from the air, but I do not believe many of our common orchard weeds turned under will fertilize the soil to any appreciable degree. Prof. Wickson has told me that turning under a large growth of weeds does fertilize the soil considerably more than by the amount of food which the weeds have withdrawn from it; partly by what they have derived from the atr and partly by making available certain constituents in the soil which otherwise would not have been taken up by the roots. He thinks this may be more applicable to the northern part of the State than here. Still I prefer clean culture of the orchard, and to fertilize with just what I know my soil needs.

Cultivate after each rain if possible. Do it as soon as the ground will work kindly; it will save wear of man, beast and tools. Be sure and cultivate after the rain which you have reason to believe will be the last of the spring; it will save you two or three irrigations.

The use of the smoothing plank is desirable if your culti-vator leaves ridges, and after the cultivation following irri-gation as soon as the soil is friable and not very wet. Of course you understand that different places with various soils have local tools differing more or less.

IRRIGATION.

The importance of irrigation, and the help it would be to have all known information about it collected, demands a separate volume. There is no question that orange trees, and good orange trees at that, can be grown without irriga-tion. I mean on other than moist land, although I have eaten good oranges grown in Artesia on moist land; and excellent seedlings from an orchard in Live Oak canyon, about seven miles north of Pomona, where water is almost at the surface. These trees are also an exception to the rule that orange trees will not do well on soil where there is standing water within 20 feet of the surface. In my or-chard near the foothills are some seven year old trees which have had no artificial watering for the past three years and have fruited each year. At the same place there are about 200 orange trees set out over two years ago which were not watered during the excessively hot and parching season of last year, yet they had new growth on them nearly every day. Some of them fruited.

While these examples prove the first proposition, any one would be called a crank who would set out to raise or-anges for profit without a good water right for irrigating purposes. Formerly the amount of water used was very large, and its application frequent. Now we know that thorough cultivation will, in a great measure, reduce the necessity of artificial watering.

As to the amount of water needed, I am confident that on soils similar to mine, an inch to eight acres will always be enough if piped to the corner of the orchard and carried in flumes or cement ditches, particularly if stored in a res-ervoir of sufficient size. In fact, I believe that amount is more than enough if used in the most economical way. In Riverside, the amount is commonly one inch to four acres, and yet I should say that they used ten times as much water as we need. I am told that some of the growers in Riverside let the water run in their orchards for 36 and 48 hours, and not infrequently for three days; while I know it to be a good irrigation, lasting fully four and six weeks in my orchard, if the water runs from half an hour to an hour in the furrows.

The frequency of irrigation depends on circumstances. If one doesn't cultivate thoroughly after the last rain he may have to irrigate very early. Three years ago I raised oranges as fine as any with two irrigations—the first not until the middle of July, when some had irrigated four times previous to that date. I grant that I do not have as much wood-growth, and consequently not quite as large trees as do those who irrigate more; but all agree in saying I have as large crops. Neither do I have as large oranges. Last summer and fall I did not irrigate enough, and as a result had quite a number of very small oranges; but for-tunately this year they are worth (in Eastern markets) within a few cents of the regular sizes. During a long hot and drying spell of weather you may have to irrigate in ten days again; when, if cool and cloudy weather prevailed, it might not be necessary in two months.

Undoubtedly the best way of irrigating is by furrows. Nearly every one in Riverside uses that method. In an orchard of thrifty, four-year-old buds all the ground should be irrigated. Should be, I said, and believe, but last year, being very hurried, I irrigated in the same direction every time, and in the line of some rows there was a strip six feet wide not wet all the season, and yet no serious harm came of it. When you irrigate do not give the best of your soil to your neighbor or the county road. Cultivate thoroughly, at the right time, after each irrigation. By the use of the smoothing plank I am sure moisture is retained longer. An advantage of irrigation in furrows is that the ground does not bake afterward. Do not let the water touch the trunk of the trees. I do not assert that this will always do harm, but have known of cases where it has injured the bark, and also, very likely, caused gum disease. I do not know of any system of subirrigation cheap enough to be in common use. If there were such, it would be the best pos-sible way of irrigating. There would be a great saving of water, which, applied beneath the surface, would do the most good, and at the same time neither cause the weeds to start nor the soil to bake. Irrigation at night is best, if you can do it or hire it done.

The necessity of fertilizing has not been thought of much until within a few years. But the orange tree is a glutton; its thousands of fibrous roots are grasping in the soil for nourishment. Feed it and it will feed you. As I am not a chemist, I will touch lightly upon this subject, referring you to Prof. E. W. Hilgard's pamphlets and contributions to the horticultural press. Remember it is possible to fertilize too much. If you use commercial fertilizers have your soil analyzed, and a fertilizer made accordingly, thus paying for only what you need. Don't fertilize the trunks of the trees; the feeding roots occupy all the space between the trees. The fact that there are some fertilizing elements in nearly all of the irrigating waters of this country may, in some degree, account for what surprises many of us, viz:—that our orange trees produce fine fruit so many years with little or no fertilizing. I have put manure on my orchard only about once in the seven years it has been growing and can see absolutely no deterioration in the quality of the fruit, and the foliage is always healthy looking.

Now that your orchard is started bend all your energies toward keeping it complete, and have it come into bearing as soon as possible. If a tree is dead or looks stunted, re-place it at once; every month's delay means loss. If a tree has been completely and badly girdled by gophers, it is the safest general rule not to let your feelings stand be-tween that tree and a good sharp mattock, although by patience and care it may be saved by scions connecting the uninjured parts of the bark. If the tops of young or newly planted trees are nearly or quite killed by frost, and strong shoots are starting from the base of the bud, one can make a good tree by saving and training the best one of these. Probably a new tree would come into bearing a little sooner.

The possibility of preventing frost has been recently dis-cussed with these conclusions: Irrigation will prevent in-jury if the mercury does not fall much below 24 degrees Fahrenheit. It is not a practical method, however, because we do not know just when frosts are coming, and again, we could not all irrigate at once. Smudges, or large fires, are a safeguard when it is perfectly calm and near sunrise, and the excessive cold lasts only an hour or two, and that not many degrees below 24.

As soon as you find trees not true to name, bud over as quickly as possible. I see no harm in planting nursery stock, small fruits, even growing hay between the orchard rows if carefully done, and whatever is taken from the soil be returned by fertilizing.

Pioneer Fruit Planters of Amador County.

Prepared at the request of W. B. WEST of the State Horticultural Society by JAMES MCCAULEY of Ione.

The writing of even a brief historical sketch of the pio-neer cultivators of fruit in Amador county is attended with more difficulty than I at first anticipated. Having no re-corded data to draw from, I necessarily must rely on my own memory and that of a few pioneer citizens still living in Ione valley, where the first fruit trees in the county were planted. Therefore I will confine this brief sketch princi-pally to this valley.

In 1850 Mrs. A. C. Surface brought with her from Mis-souri about one pint of apple seeds, and in the following year planted them, but unfortunately obtained but one liv-

ing tree. This tree being a seedling was not valuable, but was allowed to stand by its owners as a pleasant reminder of former home scenes. In the course of time it received its death blow at the hands of strangers.

In the year 1852 or 1853 Col. Alex. Boileau planted a few peach trees on land adjoining the famous old Q ranch. The first yield, two years later, which was not large, was disposed of readily at 25 cents per pound, and it is said that one man paid for the first peach that ripened $1, stating that he desired to inform his wife in the East of the mild prices of luxuries in California. The fruit from this small orchard for the next two or three years was disposed of to the thousands of miners in the adjacent hills, at prices ranging from 20 to 25 cents per pound.

It may be here remarked that the first fruit trees planted in the county were confined to the rich loam lands of Ione valley, the planters believing it a hazardous undertaking to plant on the dry uplands, the general idea prevailing that nothing would grow in summer without rain or artificial aid. The growth of trees on these rich loam lands was very rapid and they soon attained an enormous growth. Whether the object of their owners in allowing them to attain such growth arose from the theory that the more tree the more fruit, or whether it arose from sheer carelessness or want of knowledge of trimming, is a matter of conjecture. Much fine fruit therefore was lost, because it grew out of reach.

MAJ. BARBER AND THE Q RANCH ORCHARD.

This gentleman comes next on the roll of early planters in this county. In 1854 he leased 20 acres of the Q farm from Mr. Charles Green, the owner, and immediately procured from Mr. Orchards of Kentucky a sufficient quantity of peach, plum and cherry pits, as well as other fruit seeds, to start a nursery. As any kind of fruit found ready sale in the neighboring mines, no time was lost in grafting; hence much of the fruit from these early orchards was of the seedling variety which, owing to the great fertility of the soil, grew both large and luscious. I am told that 25 cents per pound was realized for the peaches from this orchard for the first two years of its bearing. About 12 acres of this orchard were planted to peaches and the other eight acres were divided into apples, plums, cherries, pears, apricots, nectarines and the almond. Among the varieties of peaches we find the Tillotson and Early Ann, ripening sometimes as early as the 20th of June, but most frequently the first week in July the low, damp land retarding their earlier maturity. The Orange Cling, Royal George, George the Fourth, Blood or Indian peach, and a White Cling maturing in October, were found among the other varieties. The common blue plum and the small, sour Damson were the only varieties of plums, both prolific bearers. I have exhibited branches from the latter three feet long, covered completely with fruit. The apples comprised the old-fashioned varieties common to the Atlantic States in those years, such as the Rhode Island-Greening, Russet, Winesap, Bellefleur, Spitzenburg, Limbertwig, Pearmain, Genetting and a number of summer varieties. It is worthy of remark that the above-named varieties (except the summer) were counted good keepers in the Atlantic States, but here in this climate they perished by December or January.

At the age of four or five years the trees on the Q ranch became heavy bearers and the only means of marketing was by wagon, and as the miners were only buyers for the family table it became necessary to haul the fruit by wagon 40 miles to Sacramento. Soon prices dropped to three cents then two cents, and notwithstanding that a distillery was erected to utilize the perishable fruit, the venture of Maj. Barber, at the end of ten years, did not prove a large success.

About 200 of the peach trees planted by Maj. Barber in 1854 are still in fine condition, proving that by proper care and severe pruning the peach may be preserved for many, many years. The apple, pear, plum and cherry still maintain a healthy condition; in fact, their fruitfulness, under good management, seems to increase. The apricot, while succeeding in part, does not seen to find its true home in this valley. A few grapes only were planted in the orchard for table use. Before closing this paragraph on the Q Ranch orchard, I will say that while many of the peach trees planted by Maj. Barber in 1854 have disappeared, yet the remaining 200 or 300 under the management of Mr. George Woolsey, its present enterprising owner, they have been transformed into new life and new trees. This was accomplished by cutting off their tops and allowing new wood to take the place of the old. Mr. Woolsey has added 120 acres more to his orchard, making it now one of the finest in the State.

OTHER PIONEER EFFORTS.

Mr. James P. Martin comes among the pioneer planters of this valley. In 1855 he procured from Oregon, at heavy expense, about 600 apple and peach trees which were recommended as grafted trees, but most of them proved to be seedlings. In 1858 Mr. Martin added 30 acres more of apple trees to his orchard, procuring the young trees for that purpose from Mr. A. P. Smith's nursery of Sacramento. These trees consisted principally of Spitzenburg, and though much neglected by the present owner are still in good condition.

Lyon and Sexton in 1855 and 1856 planted about 14 acres of trees, consisting of apple, pear, plum, peach and apricot. Their farm was located about one mile from the Q ranch, the quality of the soil being the same. They set out the first vineyard of any magnitude, Mr. Sexton bringing the cuttings by wagon from Los Angeles.

Mr. Pardee is also found in the list of pioneer planters of fruit trees in Ione valley. It is impossible to obtain anything in regard to Mr. Pardee's enterprise, but it is known that in 1855 or 1856 he set out the fine apple orchard at present owned by Mr. J. W. Violette. This orchard is in fine condition to-day.

Judge H. A. Carter and others planted out small lots of trees in the valley as early as 1856–57.

Mr. A. P. Clough in 1856 planted a small apple nursery in Grass Valley near the old mining town of Volcano, Mrs. Clough bringing the seed with her from Illinois. This old orchard, though sadly neglected still produces some fine keepers and in good hands would be profitable, lying as it does somewhat above the present pest belt. Mr. Clough soon increased his orchard to 20 acres, and his was the first experiment of any magnitude in the foothills of the county. There were a few trees, however, near him, planted by some miner, which were a little in advance of Mr. Clough's.

LATER WORK.

This brings us to 1858–59. Actuated, perhaps, by the success obtained by prior planters, and observing the rapid growth of trees in the rich, virgin soil—we find such land owners as Charles Dosch and Pat Lannan of Ione valley and Messrs. Palmer & Woolsey, Foster, Lucas, Borden and De Boldt of the Mokelumne river, embarking in the business. Messrs. Palmer & Woolsey obtained their trees from A. P. Smith's nursery of Sacramento. The usual varieties of trees were planted by all these gentlemen. All these river orchards have been well cultivated and assiduously cared for, and to-day produce some of the very finest fruit in the State, taking premiums year after year. I have bottled and preserved peaches from some of these orchards measuring 13½ and 14 inches in circumference and weighing 16 ounces.

MISCELLANEOUS.

In addition to the foregoing there were found in the gardens and dooryards of the miners in the foothills, a few apple and peach trees planted prior to 1860. These few trees were planted by the miners or their wives, probably as much from love of the old familiar objects of their childhood homes as from any anticipated profit, for as a rule the miner did not remain long in one place, but was subject to the success or failure of his mine. I had quite forgotten the fig tree, though it did not cut much of a figure in the horticultural business. There were one or two or perhaps half a dozen planted in every orchard. Mr. Borden tells me he has a blue fig tree planted in 1856 on gravelly clay soil, near a spring, which is about 40 feet high and has 40 feet of spread, the trunk measuring 10 or 11 feet in circumference.

In close relationship to the cultivation of fruit on the famous Q Ranch farm was that of corn. The sight of 300 or 400 acres of corn in California in one body, the stalks averaging from 12 to 15 feet high and yielding 100 bushels per acre, was as startling to the immigrant as were the splendors of the Sierras or the immensity of the Sequoias. The story that corn would grow in this dry climate without rain or irrigation, found no credence with those who were not witnesses of the fact.

The writer of these lines succeeded Maj. Barber in the Q Ranch orchard in 1864, and continued occupying it until 1870. During this time I recognized no insect pests whatever, and no blight save mildew on grapes and curl-leaf on certain varieties of peaches, the curl occurring more frequently on wet, cold seasons than on dry ones. This disease seemed peculiar to certain varieties, for by grafting one side of a curled tree, with sound varieties, each would retain its original healthy or diseased condition.

AGRICULTURAL SCIENCE.

Origin and Functions of Humus or Decaying Vegetable Matter.

Translated from the German of JUSTUS VON LIEBIG by PROFESSOR GRANVILLE F. FOSTER.

ANTIOCH, CAL., July 23, 1892.

All plants or portions of plants after the termination of life undergo one or the other or both of two processes of decomposition, one of which is known as *fermentation*, the other as *putrefaction*, both similar processes, the latter, however, taking place only in materials containing albuminoids in some form.

Each of these so far as the changes are concerned is only a slow combustion, the portions having an affinity for oxygen entering into composition with that element during a course of days, months or years, which process is often completed in burning in as many minutes or seconds. (It is now known that each of these two processes are developed and carried on by appropriate microorganisms which cause the chemical changes for the purpose of appropriating elements necessary to their own existence.—Translator.)

The decomposition of the chief constituents of all vegetable and of all kinds of ligneous fiber presents a phenomenon of a peculiar kind. Surrounded with air and hence with oxygen in contact, the oxygen absorbed is converted into an equivalent volume of carbon dioxide (formerly called carbonic acid gas.) The process ceases whenever the oxygen is exhausted from the contiguous air, but is renewed whenever oxygen is again supplied. But in the case of humus, the process is not carried to the length it is in ordinary combustion, though as far as it goes it is of the nature of that combustion, for the time comes in any particular mass when the absorption of oxygen ceases even when surrounded with a plenteous supply of that gas, and the humus becomes, under ordinary circumstances, an unalterable brown or coal-black mass known in common parlance as mould. This then is the first and most important product in the decay of wood. It is the chief constituent of all sorts of peat and turf. By great pressure it can be reduced to bituminous coal and by heat and pressure to anthracite. But by contact, however, with alkalies, lime and the like, the decomposition of mould can be carried further, rendering much more carbon dioxide for growing plants.

In a soil which in its depths is accessible to the air, the action in the humus will be just like that which takes place when the mass is exposed to the air at the surface, and here as elsewhere oxygen is slowly exchanged for carbon dioxide.

Each little particle of decaying vegetable matter is surrounded with an atmosphere of carbon dioxide which it has obtained at the expense of the air on one hand, and of a part of its own weight of carbon on the other. Now, in the cultivation of the ground, *here is the philosophy* of constantly loosening up the soil for this process renders the access of air to the depths beneath free and unhindered and thus often promotes the production of carbon dioxide to an extraordinary degree

It is without doubt true that in the earliest development and growth of plants carbon dioxide is not needed. Before the development of the leaf with its cells of chlorophyll, the plant is unable to assimilate the carbon dioxide of the air. At the expense of the reserve material and the little plant germ, packed away in the seed grow the primitive organs of the new plant, the first roots and leaves (the radicle and plumule.) But once the leaves are formed then commences the assimilation of carbon dioxide.

Now remember that the matter stands thus, no plant growth can take place without either free carbon dioxide at hand or some material with this gas exhaling therefrom applied to the roots, hence, the great store of this gas in the soil from which the roots can draw a supply is a thing not to be undervalued. Humus promotes plant growth not then by being itself absorbed in a soluble form and thus becoming assimilated, but because it furnishes in solution carbon dioxide, and other indispensable plant-growth-promoting elements, all of which the roots can find at hand to absorb so long as the conditions of decay, moisture and oxygen are united together in their action upon the humus.

As the carbon dioxide is passing up in the sap from the roots, there is a considerable portion that passes to the outer air by diffusion, and hence it is readily understood that plants, which shade with their leaves the ground as with a thick ceiling or roof overhead and hence retard or prevent the air rich in carbon dioxide beneath from being driven away or interchanged with the outer or upper atmosphere, have a large supply of the gas to breathe in through their leaves to be here changed into carbon for the growth of the plant and into oxygen to be breathed out into the atmosphere. Let it be remembered here that the humus contains also as a residuum of the decaying vegetable matter, all the nitrogen the plant will need, but even this is supplied because of the decomposition that goes on that chiefly supplies carbon dioxide.

Notes by the Translator. When Liebig wrote the above, the grand discoveries made in the domain of microorganism were all matters of the future. Not only is it now known that fermentation and putrefaction are caused by appropriate microbes, but that numerous diseases now generally known as zymotic, are also so caused, hence the wonderful revelations of Dr. Koch, of Berlin, and Pasteur, of France, and others who have followed these leaders, but these discoveries in no way invalidate the description of the processes of decay or their relationship or result as stated by Liebig. It will make no difference as to process or result to say that the oxygen of the air has a very great affinity for the carbon and hydrogen in the materials of which vegetable and animal frames are composed, and, hence after death because the composition of these materials is very complex, the oxygen succeeds in easily oxygenating the carbon and hydrogen, thus upsetting the stability of the compounds which thus separates up into two or many divisions, a process known as fermentation or putrefaction as there should happen to be no albuminous material or the reverse in the compound, the old view, or to say that microorganisms or microbes in the course of their life history for the very necessity of their existence, demand certain elements in the compound which being appropriated upsets the stability of the compound which thus separates into two or more divisions, known as fermentation or putrefaction etc., the new view The cause has been discovered, that is all. The earlier chemists not knowing the cause, and needing one, endowed oxygen with a sort of life, a disposition to destroy all complex organic material and set it to work to restore to the air all the gases derived from it by the processes of plant growth.

Liebig in making humus the chief source of carbon dioxide did not mean to ignore the enormous source of this gas in animal breathing, in ordinary combustion and in many cases, in volcanic action, all of which is absorbed from the air by the leaf. What a wonderful little laboratory do we find in the chlorophyll cells, for with the sun's ray as a chemist, and carbon dioxide as the material, carbon is made for the growth of the plant and oxygen thrown out into the air. The human chemist by much labor can separate carbon from the oxygen in this compound, but he has only the carbon for his pains, for the oxygen goes off in affinity with some other element or if he get the oxygen, the carbon goes off with some other element. In other words, the human chemist cannot divorce carbon and oxygen without at the same time marrying one or the other to some other element, but the sun's ray does it perfectly and yet so silently that you hear not the sound and know not how it goes on.

In Liebig's day it was believed that plants could not assimilate free nitrogen from the air, but could get it only from ammonia or other compounds of nitrogen either in earth or air, but chiefly in the former. It is now known that nitrogen in small quantities can be assimilated by the plant directly from the air, and that various compounds of this gas, so very necessary to life of all kinds, vegetable and animal, are actually manufactured from the air. In Liebig's day it was believed that it was only possible to make the nitrogen of the air to unite chemically with the oxygen of the same, by passing through the air intense sparks of electricity which would thus produce minute portions of nitric acid which, brought down by the rain would be at hand for the use of plants, but this source is very meager and does not balance the decomposition of ammonia nitrates which keep supplying the atmosphere with more nitrogen, and if this destructive work was continued the time would come when the earth, with no change in climate, would not have a supply of compounds of nitrogen sufficient for an increase in either the animal or vegetable population of the world, but the balance is kept up, the cycle is perfect.

POULTRY YARD.

Essentials of Success with Poultry.

LODI, SAN JOAQUIN CO., Aug. 8, 1892.

TO THE EDITOR:—I have read with much interest an article in the issue of RURAL for July 16th, contributed by W. H. Murray, largely statistical and conclusively showing that there is money in raising poultry if the business is properly conducted, and of course no business or occupation can be productive of profit that is not so conducted. It cannot be denied that the raising of poultry has been considered in the main as a "small business," good enough for farmers' wives to piece out the gains of their husbands in the more important occupation of grain-growing or general farming or to enable them to indulge their taste for many articles of dress or for luxury in a small way, but which would prove such a burden that the income of the farm proper would be unable to sustain it. Consequently the raising of a few "chickens" and eggs for sale is resorted to as a means by which to meet the demands of the outlay. If, however, every farmer's wife would keep a correct account of cost of keep and the product of the fowls in eggs and meat for the house and chickens marketed, it would be found, I think, beyond the possibility of contradiction or dispute, that the product of each ten fowls yearly would fully equal, if not exceed, the product of any two acres of grain grown on the same ranch. I consider this is putting it mildly, for if all the requirements to a successful keeping of poultry are fully met, as high as $2.50 per head may be netted, and where not kept in large quantities and allowed free range of the stubble and picking around the barns and granaries, not less than $1.50 per head may safely be counted on net profit.

Now, how much is realized clear profit, one year with another on an acre of grain? I don't think it will exceed $5 or $6. Thus it may be seen that the income from 100 hens will equal the product of 30 acres of the farm, which fact I think is fully sufficient to entitle it to take rank with any other interest.

If the national statistics are carefully considered, it will be found that the poultry interest ranks second to none and far ahead of most others in its product of dollars and cents, and yet it is largely considered as an occupation fit only to fill gaps in the main income, and for women and children to attend to. Where a business is made of it and fowls are kept in wholesale numbers, there is a great deal of hard work attending it, and complete and careful system needed, all of which women and children may be competent to, it is true, but it is nevertheless well worthy of man's attention as a legitimate business pursuit, and for the amount of money invested, no business can make a better showing of profit.

The failures in poultry enterprises have been and still are innumerable, from the fact principally that their originators fail to recognize the absolute necessity of attending closely to detail, either from lack of true interest in their business or because they think that the close attention to what they believe to be unnecessary and unimportant things is not needed. Where this view is held, failure, or at best only partial success, may be looked for with the final result, perhaps, that the business is given up in disgust because "there is nothing in it," and another is added to the list of those who believe that it is a business fitted only for women to realize a little something from wherewith to buy a few ribbons or something of that nature.

I do not know of a case where the person or parties have gone into the business with a liking for it and a determination to attend to it thoroughly, so far as they know or can learn, and have persisted in it on that line, where success in greater or less degree has not been attained. Of course in localities unfavorable to the raising and keeping of fowls, only partial success can be had with all care and attention; but when that is found to be the case, the proper course is very obviously to change one's base and obtain a more favorable location. Where it is only a "side" business, this is not always practicable or desirable; but where it is the main or sole business, and climate or surroundings are unfavorable, it is always advisable to change, as a little matter affects a fowl for good or ill, and seeming trifles may have the effect of changing the whole character of the business. It is this necessity for careful attention to little things that has brought the business into disrepute with many as being unfit for a man's consideration, and fit for only women or invalids. If a thing is worth doing at all, it seems to me that it is worth doing well and thoroughly; and if the profits from a business are respectable, and compare favorably with those from any other business, and perhaps make a better showing for the amount invested—as indeed it does—this fact should in itself, it seems to me, be sufficient to entitle it to consideration as a legitimate business for any one or for the investment of any capital. The idea that it does not require strength or brains to conduct it is wrong, for where fowls are kept in numbers, there is always cleaning and purifying of houses and yards or moving of houses where fowls are not yarded, alterations and additions to be made, ground to be dug up or ploughed and seeded for them that they may scratch out and eat the young grain, and a hundred and one things that require strength and skill in the doing.

A friend of mine remarked to me not long since: "I think I will get me three or four hundred hens and attend to them, as I am now so advanced in years and so feeble that I am unfit for anything else, and it will not be hard for me to supply them with water and throw them a little feed and gather the eggs." But he never made a worse mistake, as the result proved to him, for there were not many eggs to gather and his fowls "didn't do well."

A little matter either way will keep a fowl healthy and productive or in poor condition and consequently unproductive, and the business of poultry-keeping will "pay" or not according as it is conducted. This characteristic it possesses in common with any other pursuit, I imagine.

In your last issue, Aug. 6th, I see, Mr. Editor, that a correspondent at Chicago, Mr. Bernard, sets forth that in an article contributed by me, and entitled "Starting a Poultry Ranch," I did not give my full "experience"—did not in fact particularize quite enough or show whether I made a success of it or otherwise, and I believe that he is right and that perhaps I did not. I will say now, however, that I started eleven years since and am still in the business, with no desire or intention of giving it up, and in the near future will adopt his suggestion, as far as I may, and endeavor to supply the details lacking in the article referred to. I find his positions well taken and his article a thoroughly practical one, and hope to see more of them; think it would result in great benefit to all earnest poultrymen to interchange thoughts and experiences, and know of no better or more desirable medium than the columns of the RURAL.

T. B. GEFFROY.

Poultry Around Petaluma.

PETALUMA, August 1, 1892.

TO THE EDITOR:—I offer you a few lines relating to the poultry interests of Petaluma, which may give your readers some idea of the magnitude of that business in this vicinity. I will give a partial list of those keeping 500 or more laying hens: A. Ronsheimer, 500; Mr. Petersen, 500; Mr. Treat, 500; S. Q. Barlow, 500; L. Sales, 500; C. Springer, over 500; S. A. Nay, 500; H. Nay, 500; Mr. Church, 500; Mr. Zimmerman, 600; Mr. Bailey, 600; D. Houx, 600; Mr. Rievarts, 600; H. Frohlking, 600; Mr. Fuhlsom, 700; Mr. Harmes, 800; J. Ronsheimer, 800; Mr. Bunston, 800; Mr. Respine, 900; Petersen Bros, 1000; R. M. Hyatt, 1000; C. Nissen, 1100; E. A. Hoadly, 1200; W. A. Mills, 1400; T. Thorgensen, 1500.

Besides these, there are others whom I do not know who have over 500 hens. There are a great many orchardists and farmers who keep from 200 to 500 hens, and most of them will tell you that hens pay better than any other branch of farming.

Some of those mentioned in the list above have kept more than the number given. Mr. Thorgensen had at one time about 5000 hens, roosters and chickens, and for a long time kept over 2000 laying hens. He has been called the Chicken King of Sonoma county. He arrived in Petaluma a few years ago a green Danish boy, unable to speak a word of English. After working out a while, he rented a place and started out with 100 hens to raise chickens. In three years, from this small beginning, he had over 1000 laying hens. Mr. Thorgensen has never used an incubator or brooder. When his hens get broody, he puts them in inclosures provided with one or two hundred nests and gives them a glass egg for trial. When there are enough hens to fill all the nests, they are given good eggs. Water and feed are in the inclosure and they come off the nests as they wish. When the eggs hatch, the chickens are placed with their mothers in a field apart from the laying hens, until large enough to care for themselves. Some of the poultry farmers use incubators and brooders; some set incubators and hens at same time and give all of the chickens to the hens; others set hens, and when hatched, put chickens in brooders.

These last rob the hen of the greatest pleasure she has in life—that is: leading her chicks through the wet grass, taking them to the garden, or going to roost when the chicks are a week old, leaving them under the roost or tree peeping, and when you go down in the morning you find them on the ground under the roost, dead. F. W. S.

THE APIARY.

California Bee-keeping.

H. E. Brooks of Los Angeles prepares for the *Sunday Call* an article on the apiarian interests of California, from which we shall make extracts below. Although some of the facts stated are of course already known to many of our readers, the review is interesting and to some will be found to contain much that is new.

Southern California at present produces four-fifths of the total honey product of the State, the principal honey-producing counties being San Diego, Los Angeles, San Bernardino, Ventura, Orange and Santa Barbara. Honey could be successfully produced in most of the counties of the State. Climatic conditions control the honey business more than any other industry, the inland foothill regions being better than the neighborhood of the seacoast. There are stretches along the Sierra Nevada, in central and northern California, which are excellently adapted to bee-raising. At present the chief bee sections north of Tehachapi are around Placerville and Grizzly Flats. There are also a number of beemen in the neighborhood of Bakersfield and Merced.

Many of the old bee ranches in this part of the State have been sold and transformed into orchards, the beemen moving farther back into the mountains. Beekeepers now generally select a location near the mouth of a mountain canyon, with hill land in the rear, so that there will be no lack of feed should the level land be cultivated and planted to crops which do not yield nectar. A prime requisite is a good supply of water. The beekeeper need have no more level land than he requires for a garden patch or family orchard. Bees will go five miles for food, but will not work to good advantage at a distance of more than three miles from the hive. This gives an area of 36 square miles for a feeding ground, which is considered sufficient for a colony of 500 hives, the largest number that can be profitably kept on one range.

The happy California bee finds no trouble in its effort to "improve each shining hour," there being thousands of wild flowers, shrubs and trees to select from, some of which are in bloom during every month of the year. Perhaps after a time our bees will give up their inactive season from fall to spring and gather honey all the year round. At present, however, the California bee, like its brethren in other parts of the world, wisely believes in a season of comparative rest. Foremost among the nectar-producing trees of California are the oak, sycamore, water-alder, willow and manzanita. Among shrubs are the sumac, yerba santa, buckhorn, wild plum, wild buckwheat, black, white and silver sage. California white sage honey is noted throughout the world. All our honey is shipped under that name, although, as a fact, the white sage is an unreliable plant and sometimes blossoms very sparingly. Honey made from the white sage, when unmixed with any obtained from other plants, does not granulate with age or extreme cold, simply becoming thick and sticky. It is very white and of exquisite flavor. The citrus family—orange, lemon and lime—furnished unequaled nectar, but it is chiefly produced at a time when bees are rearing young, and most of it is consumed in the hive. The different varieties of acacia produce nectar. Alfalfa furnishes good pasturage, the mountain variety especially yielding a light, amber-colored honey of fine flavor. The flowers of deciduous fruit trees and berries all furnish a good quality of honey. The eucalyptus or blue gum blossom is very rich in nectar, and honey made from it has the name of containing valuable medicinal qualities. An Englishman in Queensland, Australia, is turning his attention to the raising of this honey for the market on a large scale. Finally, there are the myriad of wild flowers, to enumerate which would require a column of space. The California bee runs little danger of going hungry, except in some such exceptionally dry year as that of 1877, and that risk lessens every year, as orchards and alfalfa patches are extended toward the mountains.

In a bulletin issued last year by Director Hilgard of the University of California, mention is made of a waste land forage plant that is said to be a wonderful honey plant for bees. It is described as a green shrub or little bush which grows spontaneously to a height of 18 inches or two feet. Cattle and hogs are very fond of it, while horses and mules do not seem to like it. The plant has a long tap root, taking possession of waste places and wild lands, apparently preferring hard clay or rocky land. If the seed is merely scattered on the hills, in a few years it will cover the whole surface. In the meantime, pasturing will not hurt it. It requires no irrigation whatever, and certainly appears to be worthy of a trial by beemen and others.

In ordinary years about 200 pounds of extracted honey is a fair yield for a stand or hive, though there is a great difference in yields in some localities over others in the same year, under surroundings and climatic conditions that are apparently identical. Mr. Wilson informs me that he has produced from one hive as much as 1000 pounds of honey, worth, at five cents a pound, $50. Records of 300 and 400 pounds are not at all uncommon. It is, however, not safe to count on more than 200 pounds of extracted honey to the hive, while in poor years the yield will sometimes fall much below this figure.

Prices last year averaged from five to six cents a pound for extracted honey in large lots. This season opens at about the same rate. As long as beekeepers get five cents a pound for their honey they have no reason to complain. Prices are at present a little higher than they were ten years ago. More extensive markets are being worked up, and shipping facilities are better than they were then. Besides honey, the beeswax is a source of profit to the apiarist; it sells at 25 cents a pound. In a good year a stand will yield from three to five pounds of wax. In a bad year the hive is cleaned out by the beekeeper, and yields perhaps two pounds. Beeswax keeps indefinitely and is a merchantable commodity the world over.

California extracted honey is shipped to the market in five-gallon cans, similar to coal-oil cans, holding about 60 pounds each, two cans being packed in a case. This makes the product very compact and convenient for shipment. The commission men or other buyers put up the honey in glass jars of various attractive shapes. Much California honey now goes to Europe and other parts of the Old World. England and Germany are especially good customers. There is vast room for the extension of the market, as the people of almost every country are fond of honey. Even China imports large quantities.

As to varieties, all the bees now in the State are hybrids. The Italian bee was introduced and made a cross with those already here. The wild bees, of which there are so many in the State, will hybridize everything in the shape of new varieties that may be imported. Experiments are at present being made with a new variety called Carniolan. The Department of Agriculture has sent to India for certain giant bees, which are wild in that country. It is said that they are the largest species known in the world, and great producers of both honey and wax, large quantities of which are exported from India.

The business of raising queen bees is profitable for those that understand it. Well-bred queens of the Italian and Cyprian breed, sell at from $3 to $5 each, and the so-called Punic are valued at much higher prices. Many, however, believe the latter to be an old variety under a new name.

The beemen of this section would like to see the State University devote a little more attention to the bee business. There should be an experimental station for bee culture. Such an institution has been talked of, but nothing has yet been accomplished. In the University of Michigan there is a chair of bee culture, with a practical beekeeper in charge of the works.

A disease known as "foul brood" did much damage among the hives in 1877 and again last year. There is an inspector, who has been as a rule aided by the beekeepers, and there is little complaint of the disease this season, at least as far as Los Angeles county is concerned. Another evil with which the beemen have to contend is the occurrence of mountain fires. After such fires, sage seed should be planted at once to renew the feed and keep out other growths of a useless character. Beekeepers should also be careful not to cut down any trees that bear nectar-yielding bloom, such as the oak, sycamore, manzanita, willow and walnut. The pepper tree, so common in the cities and towns of southern California, is the bete noir of the beekeeper, honey made by bees which have access to it being unmarketable.

The southern California beekeepers have an organization

known as the Southern California Beekeepers' Association. Last March a State organization was formed in Los Angeles, known as the California State Beekeepers' Association. At a meeting of the local association, in January last, a resolution was presented to petition Congress for a bounty on honey, the object being to compete with the bounty on sugar.

Bee-keeping in California is an attractive industry, especially to those of small means or impaired health. Many invalids have found new life and hope on mountain bee-ranches. The capital and experience required are both very small, and the work light, covering only a few months of the year. Any one who possesses the inclination and a moderate amount of intelligence can, in a very short time, acquire the necessary amount of knowledge. There are many thousands of acres of Government land throughout the State, yet unoccupied, which are well adapted to the business. Of course, the beekeeper must be prepared to lead a more or less isolated life, but many will consider good health and the promise of a competence as more than a compensation for the pleasures of city life.

It is difficult to name any industry that offers such good returns for so small an investment of time and money. A friend of mine helped a man to take a swarm of bees from a crevice in a rock near Colton in 1886. That year a few pounds of honey were produced, and they had increased to five swarms. In 1887 they had increased to 17 swarms, and the honey yield sold for $100. At the end of the season of 1888 there were 65 swarms and the honey netted $380. Last year, which was a very poor year, the receipts for honey amounted to $1200, and this season, which is still worse than the previous one, the man has already sold five tons of honey from the increase of that single swarm taken from a cleft in the rock six years ago. What is more, the man knows nothing of the bee business. His wife has done all the necessary work, in addition to performing her other duties.

THE DAIRY.

The Making of Good Cheese.

In the making of good cheese the first thing necessary is good, clean milk, free from animal taint and barnyard odors. It is impossible to make a fine, clean-flavored cheese from impure, tainted milk. The first thing after the milk is placed in the vat is to gradually heat it up to a temperature of 80 degrees Fahrenheit. The heating is accompanied by careful stirring, in order that it may be uniform all through, and also to keep the fat evenly distributed through the mass. When this point is reached the milk should be carefully examined to determine its condition as to ripeness. This may be determined by the expert maker by the sense of smell, but very much the best way is by the use of what is termed the rennet test. For this, each person can fix a rule for himself, and note the time it takes a given quantity of milk to thicken with the use of a certain amount of rennet extract. The rule used by a large number of cheese makers is 11 ounces of milk in which is put one cubic centimeter of rennet extract. With this rule, when the milk is of a proper degree of ripeness it should begin to thicken in about two minutes. This test is founded on the well-known fact that with the beginning of the development of acidity in the milk the activity of the rennent is increased. The object of ripening the milk before adding the rennet is to have a sufficient amount of acidity developed so that the curd will work along in good time and make a good, solid-cutting, well-flavored cheese.

The general principal underlying the manufacture of cheese depends primarily upon the action of the rennet in coagulating the casein of the milk and in that way holding a larger porportion of the fat. The sugar and albumen of the milk are principally carried off in this way. The rennet is principally obtained from the mucous surface of the fourth stomach of a suckling cal. It is preserved for use by carefully cleansing without washing it, and it is then rubbed with salt and dried. When wanted for use it is soaked in weak brine and the liquor thus obtained is used to coagulate the milk.

When the latter is found to be in proper condition, sufficient of the rennet solution is added to cause the milk to begin to thicken in from 15 to 18 minutes. It is then allowed to stand until the curd is firm enough so that, by laying the back of the fingers and hand on it next to the side of the vat and gently bearing it away, it will cleave off. For cutting the curd, knives containing several blades, about half an inch apart, are used. When cut, the curd is left in small cubes, each not more than half an inch in diameter. It is necessary to use every care that the pieces of curd may be even in size, so that the heat and rennet will act together and on all alike, producing an even curd, without which it is impossible to make fine cheese. The main loss of fat takes place in the process of cutting and handling immediately following. The globules of fat on the exposed surfaces are easily detached, hence the necessity of carefully handling not to mangle and bruise the curd, and thus increase the amount of fat lost.

As soon as the curd is completely cut, it is stirred very gently for 10 or 15 minutes, until the outside of the pieces show the appearance of a slight film and the whey commences to separate freely from the curd. The latter is then gradually heated to a temperature of about 98 degrees Fahrenheit. During the process it is kept in constant but gentle agitation. The heating stimulates the action of the rennet, which shrinks the casein and expels the moisture from the kernels of curd. It is very important at this time that just the right amount of moisture should be separated from the curd. If too much is driven out, there will be a loss in yield and a coarse, hard-textured cheese. On the other hand, too much moisture makes a cheese that cures too fast and which will get off flavor quickly, for the reason that the retention of so much moisture causes the conditions that are the most favorable to the development of the bacteria of putrefaction. When the curd has become sufficiently firm and dry, it is allowed to settle on the bottom of the vat and stand until there is a sufficient development of acid. To tell exactly when it is the proper time to draw the whey from the curd, requires the best judgment of the maker, as it is one of the critical points in the manufacturing process. The most common test to determine the proper time to draw off the whey is known as the hot-iron test. A portion of curd is squeezed in the hand until partially dry, then placed against hot iron and carefully drawn away; if the curd sticks to the iron and is drawn out in fine threads one-fourth of an inch long, the whey is generally ready to be drawn; if the threads are shorter, it is allowed to stand until a satisfactory test is obtained. This test is supposed to indicate the amount of lactic acid present.

After the whey is drawn from the curd, the process of manufacture may be varied, one method of treatment making what is known as stirred curd cheese, the other method, a Cheddar cheese. In the stirred curd process the acid development is carried further in the whey before it is drawn off and afterward the curd is kept stirred and the kernels kept apart until salted and put to press, In the Cheddar process after the whey has been drained from the curd, the latter is packed on the sides of the vat, leaving a space in the center for the whey to drain off more readily. After a little time the curd is cut up in pieces convenient to handle, and turned over from time to time to allow the whey to drain off more perfectly. When the curd becomes pretty well freed from whey, the pieces are doubled and the process of doubling is continued at short intervals until the whole forms a compact pile. It is held there until the curd begins to feel mellow and has a stringy, fibrous texture, when it is put through the curd mill to tear it in pieces so that it can be salted, after which it is put to press. With good milk, fine cheese can be made by either plan, but taking into account all the changing conditions the cheese maker must meet, I have no doubt the Cheddar plan is the safer.

The average amount of milk required to make a pound of cheese is a little over ten pounds. The best apparatus for a small dairy is a small-self-heating vat, that is, a fire underneath the vat surrounded with water and connected with the water surrounding the vat. For the factory a boiler and steam pipes connected with the vat are used.—Geo. A. Smith, Cheese Instructor N. Y. Dairy Commission in Rural New Yorker.

THE IRRIGATIONIST.

A Sprinkling Outfit in Florida.

There seems to be considerable agitation of the irrigation problem in Florida, but it proceeds by sprinkling rather than immersion. In Florida we understand water does not run down hill, because of the lack of hills or mountains. As the source of supplies is lower than the cultivated surface, the operation has to proceed by pumping; and rather than pump to tanks and distribute by gravity through furrows or ditches, they seem to prefer to pump to spray nozzles and shower the crops they desire to water.

We have had a few small enterprises in which limited areas were sprinkled from underground pipes, hydrants and hose, but the Florida plan is so novel that the account which we take from the Florida *Dispatch* will be read with interest:

Two miles east from Lane Park, looking down southward from a commanding hill upon Little Lake Harris, is "The Palms," a grove of citrus and deciduous fruits of 120 acres, owned by Mr. Andrew Muir of London, Eng., and managed by Messrs. H. M. and R. Frith. We shall in this letter write only of the irrigation plant, its workings and effect.

THE ENGINE AND PUMP.—There are two boilers of 40-horse power each, side by side, and to subdue the heat in the engine-room they are jacketed with thick white magnesia packing. By sprinkling water copiously over the earth floor of the engine-room, the engineer keeps the heat down somewhat; it was 126°, which he considers reasonable.

The pump is a Worthington duplex-packed plunger pump, steam cylinders 18½ inches in diameter, water plungers 10¼, delivering 700 gallons per minute, though capable of being forced up to 900 or over if desired. The governor is so arranged, connecting between the great water pipe and the steam valves, that if at any time the hose holders in the field stop throwing water, it will set back and the increased pressure in the main will close the steam valves and slow the engine down, nearly or quite stopping it. This prevents the bursting of the mains, which would be apt to occur if the engine kept driving the water into them with no outlet.

THE PIPING.—There are 2700 feet of main leading up through the middle of the grove from the lake to the summit of the hill, 85 feet in elevation. It is 8, 7 and 6 inches in diameter, about one-third of each size; number 14 iron. The pipe is spiral-riveted, plain, but tarred inside and out, and the sections connected by a joint so simple that common laborers did all the fitting and laying. It consists of three iron rings or short sections of pipe and two rubber bands fitting over the main pipe and drawn tight by bolts lengthwise of the pipe, making a tight joint which still has considerable flexibility, whereas the ordinary joint screwed together is inflexible. The laterals are of number 18 iron, four inches in diameter, branching off at intervals of 200 feet and leading out to the farther sides of the grove. Both they and the mains are buried about a foot deep. At intervals of 200 feet are hydrants, and these slope from the laterals at an angle of 45°, in a direction outward from the fountain head, so that the water shall not be forced to turn a right angle in entering the hose.

TO RELIEVE PRESSURE.—The reader can well understand that this large volume of water forced rapidly up a hill nearly 100 feet high, maintains a tremendous pressure upon the piping. It is very desirable to impart elasticity to these continuous large columns of water, which are practically unyielding in themselves, and which, if the delivery should suddenly be checked, would strain the pipes severely. To accomplish this purpose, Lieut. Franklin introduces air-chambers on the mains, which are perpendicular iron cylinders 15 inches in diameter and 10 feet high. Air is compressible, and if there should be a sudden rush of water at any time, some of it can be accommodated by crowding up into these air-chambers.

THE HOSE.—The sections of hose are about 35 feet long and 2½ inches in diameter. The ends are of ordinary rubber-lined cotton, while in the middle is a 25-foot section of three-inch spiral-riveted galvanized iron pipe. This middle section is the part most exposed to wear by being dragged about over the ground, and is found to be an improvement over the plan of having the entire length made of cotton. The nozzle is of brass, tapering down to a diameter of 1¼ inches. It is attached to a light wooden tripod like that of a surveyor, which can be closed together while the hoseman is playing on the trees, or opened and jabbed into the ground to support the nozzle while he goes to the hydrant to shut the water off. It is important to keep the nozzle off the ground while the water flows, else it will soon gouge an ugly hole.

PLAYING ON THE TREES.—As the reader has doubtless already observed, the grove is divided off by the laterals and hydrants into blocks 200 feet square. In the center of each of these is a hydrant which throws the water over 100 feet in every direction. The trees are set uniformly 24 feet square, and the hosemen gauge themselves by these, watering about five rows each way, making blocks 240 feet square. The outer edges of these blocks naturally receive a little less water than the middles, but this is made up by the lapping.

In the old groves at Citra the trees are tall and thick together, and it is the easiest thing imaginable for a careless man to let the powerful jet rip right through a tree, cutting out leaves and fruit in destructive fashion. But with the small and wide-set trees at The Palms, this can easily be avoided. The hoseman aims to throw the water high in the air in order to break it into rain, and a painstaking man will gently move the nozzle from side to side, giving the jet a wavy motion, which accomplishes the purpose still better.

In seeing the jet play among the tall, dense groves at Citra the writer was unfavorably impressed with the hose system of irrigation; but at The Palms it is a different matter. It will be years before these deep-grown, budded trees are tall enough to be exposed to much injury from the jet, if they ever are. If they continue to grow, however, as rapidly as they have done the last two years since the irrigation plant was put in, the time may possibly come when a system of automatic sprinklers, throwing up a gentle spray, umbrella-shaped, may be better.

RATE OF WORK.—Messrs. Frith Bros. state that a man will irrigate one of these 200 feet square blocks in an hour, or a little over nine acres in ten hours. Active, skillful men, with the engine running briskly, will cover 10 or 12 acres in a day. The pump delivers 700 gallons a minute, 42,000 gallons an hour, 420,000 gallons a day; but it is found in practice that, owing to time lost in changing hydrants, etc., about 300,000 gallons will be delivered in a day. This is divided between three hosemen, giving approximately 10,000 gallons per acre. In examining we found that this amount of water had wet the dry sand down about 2 or 2½ inches, and after an hour or so it soaked down about 3 inches, meeting the line of permanent moisture.

THE EFFECTS.—Judging from present appearances, these have been admirable. The trees have a rich, dark green color, and the greater part of them have as much fruit as could be expected at their age. In their inexperience the young men, upon advice, planted some trees of a shy-bearing variety; most of these are destitute of fruit. On the Mediterranean Sweets, the Tangerines, the Homosassa, the Jaffas, and some others, we observed much fine fruit; all the trees are clean and bright. The young men say they have grown as much in two years since the plant was put in as they did in the four years preceding. The trees on the summit are springing forward and gaining on those planted in the moist alluvium down on the level of the lake. Down here we saw some six years old, which will yield three boxes apiece. A small block of trees about 12 years old have several carrying from six to eight boxes apiece.

COST, ETC.—The plant as it now stands cost about $16,000. The managers have figured very closely on the expense of irrigation (there are 120 acres in grove and 150 in all under irrigation), making it about 25 cents an acre each time. Lieut. Franklin thinks a grove on this dry soil ought to be irrigated 12 times in a year; this would bring the cost to about $3 per acre per year. This is practically the second year the grove has borne. The managers count on 1200 boxes this year, and they are confident they would not have gathered 400 without the irrigation plant.

It is evident from the yellow subsoil of this grove that it is good orange soil; the trees find what they want; but they needed water and they needed potash. After a succession of uncommonly dry seasons the young men were getting disheartened. But this beneficent rain, arching like white rainbows over the bright young trees, has given them new hope. It benefits everything even when poured down under the hottest sunshine. Its enormous drops, falling such a little distance compared with those from the clouds, do not harm the tenderest beans or tomatoes. There are missing places in the rows where the managers have cut off and rebudded sterile trees, but the thrifty stumps will soon fill up the gaps. The generous supply of water will bring them on more rapidly.

Florida owes much to Lieut. Franklin, the inventor of a system of irrigation different from anything else heretofore used; the only one which imitates rain; the true system for the light soils of this State. Florida also owes much to this English merchant, who had the courage to pour out his money here like water. It owes much to these young men, working here for years in loneliness and isolation, to build up what in a few years more will be a noble property.

The Home Circle.

A Chance Meeting.

Written for the Rural Press by Isabel Darling.

The long, hot hours one summer day
Had almost burned themselves away;
The air was thick with dust
If but a vagrant gust
Of shifting wind swept past the bend.
It seemed the road would never end—
That tiresome road that wound
In spirals round and round
And ever up.

On this side sank the canyon walls
Where, far beneath, the river calls
And murmurs of the sea:
Huge rock and clinging tree
Seemed fearful of the depths below,
And, wrapped in veils of gauzy woe,
Stood midway, crouching there
Like forms of shivering, dumb despair
Denied the fall.

On that side rose the mountain peak,
Where birds of prey in circles seek
Their food. So high it rose,
Ravine and forest seemed to close
In one dim mass of shaded gray
That in the glowing sunlight lay
And quivered, while we stood,
Our horses resting as they could
On bracing feet.

A distant sound drew nearer still,
In rattling echoes down the hill;
A dust-cloud and a gleam
Of wheels and weary team,
And as it stopped, when just abreast,
Beside the spring to drink and rest,
We saw a woman's face;
Then all the heated place
Grew softly cool.

She said, "The road is steep since noon;
We're glad it will be better soon."
We knew it all before,
And yet 'twas something more;
For patient strength was in her tone,
Her eyes held courage surely grown
From faith. We parted then
And never met again;
But all the after changing years
Of struggling life, of smiles and tears,
Have kept that look and tone
As gifts from one unknown
Who smiled and passed.

In a Miner's Cabin.

Written for the Rural Press by C P. Nettleton.

I was taking a walking trip through the more remote parts of California, and on the night when this story really commences had been obliged to do as I had often done before—camp out in the woods. I was in a wild and almost desolate part of Amador county. The road I had followed that day was evidently used but rarely, and my hopes of sleeping in a house had been disappointed.

After a supper of the canned provisions I always carried for just such emergencies, I lit my pipe and settled myself comfortably against a fallen tree for a quiet reverie before turning in. I had made my camp some distance from the road from habitual prudence, and the woods were so dense that I feared no disturbance from man, while my fire would protect me, for a time at least, from animals.

Suddenly I heard a crashing of twigs; some one was approaching my camp. I quietly slipped my revolver from my pocket to the ground where it would be handy but out of sight, and sat still. The tall form of a rough-looking German appeared in a moment, and after calmly surveying me the man rather bluntly demanded why I had not come to his house for shelter. His English was so broken that I replied in German, at which he seemed much pleased. Any thought of fear was dispelled in me by his frank, blunt cordiality, and I told him I would be only too glad of shelter. He took me at my word, waited till I had gathered up my traps, and then led the way to his house. How the fates mislead us! Had I walked on 50 yards farther before turning from the road I had seen it.

Once inside that miner's cabin up in the woods I was astonished. An organ, easy chairs of the style of 20 years before, a Brussels carpet, worn out in places but good when new—what kind of a place was this I had struck? The house was small and had the appearance of having been added to, and it was very dirty; but what I noticed more than all else was what I could least explain — the walls were covered with paintings, both oil and water! I almost forgot all civility in my haste to examine them. I have dabbled a little in almost everything, painting among the rest, and have been told that I could have been well-known in the art, and my judgment told me at once that some of those paintings, if not all, were very superior. I have been less impressed by some of the received masterpieces in Paris and Rome than I was by some of those paintings buried in that unknown miner's cabin. You think this excessive praise, or proof of ignorant judgment? Perhaps, but you have not seen them. One, in particular, attracted me and gave me the feeling of having seen the original place. It was a good-sized canvas, about five feet by three and a half, and represented a long, narrow beach stretching away from the spectator. On the right the sea was suggested by two or three thin waves rolling lazily up the sand, and on the left—and this was what partly aroused my memory—stood out boldly a peculiarly shaped formation of limestone, partly hidden by low shrubbery growing over and around it from the land side. I had seen that place, but where? Try as I would, I could not place it. I even thought that perhaps my memory was tricking me through the power of some artists to suggest that we are familiar with what we have never seen, but I was not satisfied with that explanation. After all, what did it matter? I turned away and sat down by my host, who evidently lived alone.

We talked awhile on the subjects strangers can always find common interest in, and I found him far more intelligent than his rough appearance would lead me to think. I tried to get him to talk about the pictures, but elicited no information about them except that he did not paint them himself. That there was a story book of it all I was sure, and I was as quietly determined to have it some time. We sat up late that night, and he seemed as much pleased to meet me as I certainly was to find such an unusual miner.

Next day he told me the story that I had been sure must be connected with those wonderful paintings. I had told him I was an amateur and had offered him a high price—three thousand dollars—for the one that most took my fancy, the one I have described. At first he absolutely refused to part with a single one, even the smallest, but my entreaties prevailed more than anything else, I think, because I promised in writing not to allow any one to see it for five years. His reason for that condition I could not fathom, and did not care to. I bought the picture, and then he told me the sad tale of the person—a woman—who had painted all those works of art. I think he was glad to find an intelligent listener, and sad as it was, I was not sorry to have the tale told me. I will repeat it in almost the words of my host.

The fall of '57 found me pretty nearly ill. I had worked hard, made little money, and probably not taken good care of myself. I was living alone in this cabin, as I am now. One day I suddenly found that I ought to go down to Plug Hat and get some provisions, but did not feel able to ride that far. Just what to do I did not know. Miners were passing the house every few days on their way up the valley, but only on Sunday did any come down the valley. This was Tuesday, and the more I thought, the more anxious I grew as to what I should do if I got worse. Toward night I crawled out to get some firewood and to feed my horse, when I saw, of all things in the world, a covered wagon coming up the narrow trail drawn by two horses. They were driven by a man on foot; and as he came up he stopped and spoke as a matter of course. He was young, not over twenty-four, but with as determined a face as I ever saw—not hard nor rough, but simply determined. He could not understand my broken German, and called to some one inside the wagon. A woman's head appeared, when the man told her to see what I wanted. What I most wanted, at sight of the first respectable woman I had seen for three years, was to shake hands with her, but I only made some little request—I have forgotten what. My face and manner must have shown her I was ill, for she looked at me long and keenly and then said, as she turned her head away, "*Kyrie Eleison.*"

They stayed with me that night, and in the morning I did my best to induce them to remain for a while. Perhaps I was selfish, but I was certainly ill and took no pains to conceal it. They stayed with me, though probably why they did so was chiefly because in three weeks the woman gave birth to a child. They already had one child, a beautiful little daughter of four.

All that winter they stayed in my cabin, and I was greatly pleased. It was a treat to be near a lady, as Mrs. Trowbridge indubitably was. I enlarged my tiny rooms, fitting up one on the north side so that she might have the regulation north light for her studio, and we got along together well. She painted and did most of the housework, while her husband and I used the "Long Tom."

But I was a little troubled. There was something wrong about the woman, young and beautiful and refined as she was. She was out of place in the woods, but seemed quite cheerful in spite of all the discomfort we had to undergo, so the cause of her trouble, whatever it was, must have originated before she came. It was a long time before I even allowed to myself that she was not quite sound in her mind, but I finally had to. She did not show it in any special, tangible way, so I could have given no good reason for my belief, but no less did I know positively that she was not wholly responsible.

She was passionately fond of painting. She had brought some canvas and articles she needed in her work, and sent for more as soon as settled. She would paint from dawn till dark if nothing prevented, and, as a matter of fact, her husband and I took most of the care of the children. Once in a while, all too seldom as I thought, she would use the organ which she insisted on having brought up from San Francisco. And her playing was rich, was glorious! I never more than half believed that not only the emotions of love and hate and anger and hope but also colors could be expressed with a musical instrument, until I heard her play. Then, I was convinced. The woman was a genius in music as in painting, and I wondered greatly that she could be content to suffer the limitations of a country life.

One day, when her husband and I were off as usual washing gold, he grew more confidential than usual, or perhaps I should say he thought it his duty to tell me something about themselves. I had said some rather pronounced truths about her obliviousness to all things but painting and music. He stopped working and sat down. I saw he had something to say, but for a few moments he was silent.

Her father, he said, was a poet, one well known and highly esteemed, but with the eccentricities of genius. He did not mention his name, but I learned that afterward. This daughter was the object of his special aversion; for what reason the young man did not say, but on that point I have my own opinion. We often hate those we have injured! At any rate, the man lost no opportunity to make his daughter's life miserable, and what she had suffered through no fault of her own had to some extent affected her mind. Her father had bitterly opposed her marriage to Mr. Trowbridge, and from the day that they thought themselves justified in eloping they had moved from place to place very often, to avoid the trouble that they had reason to think her father would visit on them if able. She loved her father with all a sensitive woman's devotion, and to know that he could harbor unkind sentiments toward her, to feel that he was wholly unworthy of her affection, had so burdened her that she was really a little unbalanced. This was about all the poor young husband told me.

I could say very little to comfort him, though I spoke of his two children, to whom he was devotedly attached. Even they, or at least the infant, were a source of anxiety to him, lest they should have inherited from their mother qualities which would sometime be a sorrow to themselves and others.

I think that the few months they stayed with me were the happiest they had known since their marriage. So far from the world as they were, so free from anxiety about the means of obtaining a living, and so unburdened of the fear of aught her father could do to them, surely, now, if ever, they could enjoy life, and I am sure they did. To me, I can assure you, their coming and staying had been a real blessing.

By spring, I was glad to see, their peaceful life had wrought a great change in their health. We had been very successful in washing gold, more so than I had ever dreamed of being, and there seemed to be no reason why we should not be just as happy for a long time to come. But the shock came and came suddenly.

Trowbridge and I were off mining, as usual, one day in April. We never felt any fear for the safety of the woman and children left at home, such a thing as danger from passing miners or any other source hardly entering our heads. As we neared home, Trowbridge noticed that though past five o'clock no smoke arose from the chimney, for, in spite of her passion for painting, Mrs. T. usually was preparing supper on our return. I made some commonplace remark and my companion seemed satisfied.

When we got to the door, we were astonished to see a stranger sitting in a chair close to it, with his head bowed in his hands. We were close to him before he heard us. When he did hear us, he started up and glared at us, or at least his gaze seemed so at first, but I saw at once that sorrow and despair were the emotions expressed in that gaze. His face was red from weeping, and almost appalling in its exhibition of agony. Trowbridge and he looked steadily at each other.

We stood so for some seconds. It takes longer than some think for deep passions to rise to the point of expression, and I remember that terrible silence made tragic by the man's ungovernable emotion, as more of a strain, almost, than the knowledge that soon came. The unknown is sometimes worse than the worst knowledge.

I thought Trowbridge was about to draw his pistol—he always carried one, but mine was somewhere in the house—when the stranger slowly reached out his hands like a blind man and said hoarsely, "Kill me, for God's sake, I did not mean to, I loved her, but, Oh—"

Trowbridge dashed through the door, pushing aside the man so roughly that he stumbled weakly backward. I, too, hastened in.

On the floor in the next room lay the body of Mrs. Trowbridge. A pistol near her head explained the manner of death.

Trowbridge knelt down by the side of his dead wife. I turned to the man who had in some way been the cause of this thing, or the murderer. He had sat down again in his former attitude, and when I put my hand on his shoulder he did not look up. He shuddered at my touch, and when he spoke I could but pity him, savage and murderous as I felt, so utterly stricken with grief he was.

"I came to take her home with me," he said, "I loved her and I was lonely. She did not know what I had come for. I must have been harsh at first, yes, I was. I reproached her more than I meant to. She was taken all by surprise. I intended only to say a few words about her leaving me as she did, and then surprise her by saying, 'Come home.' But she did not wait for that. She got excited, and before I divined her intention, she had got hold of a pistol. I tried to stop her—I swear before God Almighty that I tried to stop her—" he raised his head and looked at me fiercely—"I caught her arm and tried to tell her that we would live in peace evermore, all together, if she could forgive me, but she did not hear me, I think. She seemed wild, she acted like a phrenetic. O, my God, have mercy"

Poor old man! I did not tell him then, and never did, that his inhuman attitude toward her had indeed unbalanced her mind. The shock of seeing him had been too great.

I was trying to think what to do, when we were startled by hearing the ring of a pistol, and turned to see her husband sink down by the side of the dead. He died instantly. Whether or not he had heard what her father said I am not certain, but believe that he had.

I buried husband and wife in the same grave. The old man was too prostrated to be of any assistance to me, and I saw no use in complicating matters by calling in my nearest neighbors, while as for a clergyman, the nearest one was fifty miles away.

I took care of the infant and little girl as best I could till a woman I sent for came. In a few weeks, as soon as he was able, the old man gathered up a few treasures, some of her paintings among the rest, and took the children and the woman to the East. He refused to take all the pictures, and told me to burn what he left, but I could not.

Who was he? You must pardon me; he is dead, and it would serve no good end to tell you his name.

When I am at liberty to show the painting I bought, it will make a sensation. It is the one that most attracted my attention at first, though I have not yet been able to remember the place it must be a picture of.

How to Have Pretty Hands.—A lady should have beautiful white hands and no mistake. If the skin be naturally white, very little care is required to preserve it. A good soap, aided by a pinch or two of cracked oatmeal, may be used for a thorough cleansing twice a day, and if needful to still further cleanse them, warm water—not hot—will do the necessary work. Once a week they should be rubbed front and back, between the fingers and all, with a slice of lemon. If these exquisitely white hands are inclined to chap, camphor ice may be applied at night and white gloves worn to increase the softening effect. The best camphor ice is a homemade preparation of pure white wax melted and stirred to the consistency of cream, with the addition of several drops of spirits of camphor. Holes should always be cut in the palms of the gloves to allow ventilation. For distressingly red hands, equal parts of glycerine, lemon juice and rose water may be applied nightly under gloves. Daily applications of lemon juice are sure to produce a whitening effect. Tight sleeves and snugly fitting

finger rings are a frequent source of red hands, and the only remedy for this is to remove the irritating cause. Smooth, white hands may be difficult to acquire, but they are certainly within the reach of all who care for them sufficiently to make the effort required to secure them.—Drake's Magazine.

One Night in the Woods.

Written for the RURAL PRESS by SHERMAN L. WATKINS.

"Here is a capital place to stop?" suggested my friend Andrews, as we halted late one afternoon at a small mountain meadow in the upper Sierras.

"Yes, we could wish no better place than this," I answered as I gazed around.

A few rods from us was a small mountain stream of extraordinary clearness and beauty, which murmured with monotonous regularity until it reached a hidden ledge of rocks, where it alternately slipped, tumbled, and fell and afterward lost itself amid tangled depths of ferns.

We unhitched our horse and tethered him near the margin of this stream, where bunch grass was growing in luxurious abundance.

"It is now five o'clock," said Andrews, producing his watch, "and it will be quite a while until night yet; suppose we take our guns and fisbing-rods and go up the creek a distance?"

"All right—but listen; do you hear that?"

An indistinct, muffled sound broke the dreamy stillness.

"A grouse, I'll bet," exclaimed Andrews.

"Yes, it is a grouse, and from the sound I infer that he is in that tall black fir yonder," and I pointed in the direction indicated.

Cautiously and slowly moving through the underbrush, we neared the tree; the muffled sound grew more distinct. Finally we reached as far as we dare go without being observed by the grouse. From behind the interposing bulk of a huge tree we observed the tree that the grouse was in—an old broken-topped fir, splintered by some forgotten midnight storm.

"I have heard," said Andrews in a low voice, "that these mountain grouse are exceedingly shy birds and very difficult to get a shot at."

"Yes, they are," I answered; "their color so much resembles the bark of the tree that it is very difficult to distinguish them; but let me have your telescope, possibly I can find him. Yes, I see him now; he is on the third limb from the bottom and about two feet from the tree."

"You don't mean to tell me that that spot is a grouse," exclaimed Andrews incredulously.

"It certainly is," I replied; "but take a shot and see."

A sharp report; some fragments of bark drop to the ground, but no bird.

"I told you it was no grouse," remarked Andrews disdainfully.

"Yes, that is a grouse; try another shot."

The spice of gunpowder again fills the air, and a bird drops to the earth.

"Well, that is nothing at all like an Eastern grouse," said Andrews, examining the bird; see the feathers on its legs."

"Yes, all the California grouse are that way," I replied. "We have got a bird, now let us see if we can catch some fish."

After emerging from a thicket of vine maple, hazel and ceanothus, tangled in with the imperishable fern, we came suddenly upon the brink of a beautiful transparent pool, giving forth emerald and silver flashes of light.

After half an hour's fishing a half dozen of rainbow-tinted beauties bade farewell to their native element.

We started back and soon reached the place where we intended camping.

We gathered together a pile of pine needles, fragments of limbs, etc., and built a fire which soon crackled and sparkled cheerfully.

You may be sure we ate our supper with a keen relish, for at these mountain heights a person's appetite is increased to a marvelous degree.

On all sides of our camp arose the colossal columns of the pines and firs, lithely graceful and exquisitely symmetrical in their wild beauty. The woods seemed crowded and stifled with their rank maturity of vegetation and the fanning breaths of wind that issued from these crowded aisles was charged with a spicy, nameless intoxicating perfume that seemed to fire the soul with countless noble thoughts and high ambitions.

Already the bloom of the day was dying in irised splendors; the sunset fires dazzled our eyes for a few moments, the colors paled, deepened, intensified, flamed and went utterly out; the ravines and canyons were soon filled with a reddish purple light, which rapidly changed into a violet blue atmosphere, and in turn merged into the growing darkness. The light no sooner paled than a few stars began to loom out in the dying crimson sunset trails. A weird twilight now began interfusing itself through the foraminiferous, bark-strewn aisles, and a deep, wide silence reigned supreme—a silence like the solitude of some forgotten past.

In this enchanted dusk happily everything in life is forgotten and imagination takes the throne.

Lying on a cushion of velvety softness, formed by pine needles and wood clover, my mind becomes impressed with the majesty and magnitude of the colossal pine that looms almost two hundred and fifty feet above my head, for I suppose it has withstood the storms and tempests of twenty centuries. Possibly, if it could speak, it would say something as follows: "I have been a silent witness to the passage of over twenty centuries of time. I was in my youth when the star in the east led the sages to the Savior's cradle. I was beginning to enter my old age when Columbus set sail from Spain to discover America; for twenty centuries I have watched the sun come and go. I have seen the

Children of men arise and pass
Out of this world like blades of grass.

Tempests, floods, fires and snows have tried to destroy my life, but I have withstood them all. I have fulfilled my mission on this earth, and am now dying; for do you not observe that the ends of my branches are dead, showing signs of defect within? Some midnight tempest will hurl me from my rotting base, and with a crashing, thundrous, splintery sound my life will end entirely, and in a few short years of time my decaying column will have entered the dust whence it came."

But now what was that light rising over the darkened ridge?—a light that kept increasing like a faint mystic aurora. Was it a forest fire? A lighter glow appeared—intensified—a rim of fire, and the full moon burst over the horizon ridge. But see, what a wildly beautiful picture—an old lightning-splintered pine on the distant ridge was clearly and boldly defined against the silvery background of the moon—every twig and branch standing out with sharp distinctness. For a few moments the moon held this glowing picture on the sky, then swiftly faded from view.

As the moon arose in the eastern heavens it glittered in silvery magnificence out of its setting of dark blue crystal and threw a flood of dazzling snowy fire over forest and mountain, clothing them in a frost-like drapery.

The ground in places near us was covered with the cast-off bark of the incense cedar, which, in this whitish, uncertain light, gave back a dull glow like dying embers.

We plied more fuel to our fire, and feeling sleepy we lay down upon the fragrant, needle strewn ground. The events of the day and the spicy, invigorating aroma of the woods helped to lead us to utter forgetfulness and we soon fell asleep.

Along in the early hours we were awakened by the cold; a heavy dew had congregated on all things. We remodeled our fire and ascertained the time. It was four o'clock in the morning; the stellar fires had already begun to pale, and in a short time the stars went out and the far-off aisles of the wood began to grow pale with advancing day—the stillness and purity of the night imperceptibly faded into the blaze of a daffodil dawn, and morning in her brilliant and gorgeous coloring ushered in the new-born day.

The frozen summits of the Sierra Nevadas soon blazed with intensest crimson splendor as the early fires of morning flashed and flamed around their crests.

As the sun gained in light and heat myriad insects filled the lower air with their monotonous hum, and the birds caroled vociferously, as if to welcome the great sun.

A light, flower-scented breeze was blowing as we started off through the woods, and the sky overhead was of a deep, glowing, golden blue, as if clouded with gold.

—"I don't feel right about going in there," said Chillson Feever in front of a physician's house.

"Pshaw! He's one of the best doctors in the city," replied Coffin Coles.

"I know; but look at his sign—'9 to 1.'"

"Well?"

"Well, I don't take any such chances as that."

It is stated that Kate Castleton, whose death was announced recently, was badly burned while yachting, and the cosmetics she used permeated her flesh through the blisters raised by the intense rays of the sun, and this caused her death.

Young Folks' Column.

Youths at the World's Fair.

Provision has been made for holding, in Chicago at the time of the World's Fair, of a congress composed of youths of all nations of the world. Delegates will be sent, it is expected, from England, Japan, France, Germany, Norway, Sweden, Spain, Austria, Italy, Russia and countries of the Orient. These young men are to be selected from the high schools and grammar-school grades. Their ages are to range between 13 and 20 years. No World's Fair congress has been thus far arranged for, it is thought, which will excite more interest than this project.

The idea is to get from each country not more than from 15 to 40 or 50 students. All told, it is intended to have 5000 at the congress, and a special committee has been appointed to see that proper encouragement is lent to induce attendance. The preliminary address of the special committee has been issued by A. F. Nightingale, chairman, and F. F. Bliss, secretary.

President Bonney, of the World's Congress Auxiliary, says that the topics discussed will touch neither upon religion nor politics. His idea is to gather in Chicago next year a representative assembly of the educated youths of all countries. They are to be addressed by the leading educators of the age who may be in Chicago. The scheme originated with a committee of which Francis Bellamy is chairman. The pith of the argument for such a congress is embraced in the following paragraph from the preliminary address:

"It is felt that a carefully selected assembly of the young from all nations, under such remarkable conditions as will prevail during the Columbian Exposition, cannot fail to powerfully aid this high end. It is purposed to draw together the worthiest and most talented youth of all lands, the coming leaders of mankind, that they may be led to realize as could not otherwise be possible, the meaning and the worth of the fellowship of nations and the brotherhood of man. In a gathering so constituted there would certainly be some who will be called to deal decisively with the destinies of States and the serious concerns of millions of men. Brought thus together, and face to face with the larger relations of our independent humanity, those fresh minds would greatly gain in fitness for the important tasks decreed to their future. Among them would be many who will survive all who are now active on the stage of the world's affairs, and who would therefore stand before the generation to follow us as witnesses of the humanizing power of the World's Exposition of 1893, and be inspired by its influence to higher and more useful careers, making the fulfillment of its great promises their noblest claim to history."

Elfrida.

Elfrida was born in a great forest far away in Sweden. Her father and mother lived 200 miles from any town, and the village nearest to their little wooden cottage was six miles off. Elfie was very lonely, but she did not mind a bit, for in summer the bees and the birds and the butterflies made all the forest merry, and she played among the soft mossy roots of the trees all the day long. She was once in danger, for she saw a great brown creature eating berries from a bush, and she said: "Oh! what a funny cow. Let me pat you, dear cow, and I will kiss you, for you give me milk to eat with my cranberries." But Elfie's father rushed out, and the queer "cow" shuffled off into the deep wood. The beast that the little girl took for a cow was a brown bear. Bears feed on roots and fruit in the summertime.

In winter little Elfie had plenty of fun, though she could not go out much. In the long, dark evenings she sat by her father while he carved out lovely toys, and she learned to make funny little animals out of wood to go in the Noah's arks that English children play with.

When Elfie was seven years old, her father grew very ill one night, so her mother went off to the village for help. Late at night Elfie's father rose up and said: "Goodbye, little darling. I am going a long way off to leave you." Then he shivered and shook his head; and Elfie said: "Very well, dear father, only come soon to your little girl again."

Then the good man lay down, and Elfie thought, "Oh, he has gone to sleep," and she got into her little crib and slept as well. There was only a little daylight in that wild country, and Elfie's mother had to find her way through the dusk of the lonely woods.

Elfie grew very, very hungry, when she woke, so she got a piece of black bread and ate it. Then she played with her toys and made herself happy for a long while; then she went to look at her father. She said: "Father, dear, wake up," but he did not wake, and she thought, "Oh, he is so tired, poor man. He worked very long, and he wants sleep," and she played again.

But when her mother did not come Elfie was sorry, and at last she began to cry. She cried and cried for a great while, and she was quite tired out, when a big man came in and said: "Dear little one, why do you cry? I was passing, and I came in to see." Then Elfie sobbed, "My dear father won't wake up, and my mother has not come back." Then the big man looked, and he said: "Give me your hood and your cloak, my dear, and let me have your long boots, and I will carry you to see your mother after I have put them on."

So Elfie went, and she babbled in the good man's ears all the way as he walked. When he got home he said to his wife: "This little girl has neither mother nor father now. Poor Nils is dead in the house, and we must go and bury him; and poor Johanna died in the snow, and she is lying at the doctor's. What shall we do with the child?"

The woman answered: "Dear little thing, her uncle is far away in America, and some of our people are going. Let us send her."

And Elfie went with the people on board the great ship, and she cried, "Oh, father, come to me. Oh, mamma, dear, do not leave your own little girl!" But the people said, "Hush, sweet girl, your father and mother are gone away, and you must now go to your kind uncle; he will love you and give you nice clothes and nice food." And all the sailors in the ship were good to Elfie, and they nursed her in their arms and gave her sweets and taught her funny games, and she grew happy.

After many days on the sea and many days in a railway train, Elfie got out at a big station, and a kind man with a red beard met her and said: "You are my Johanna's little girl; I know by your eyes and your hair. Come with me, my little kitten, and kiss me, and we will go home."

So after traveling 5000 miles, the little orphan was once more safe; but she never forgot her father's cold, white face, and she often cried when she thought how her mother was caught in the cruel, cold snow.

She is now a big girl.—The Princess, London.

—Couldn't hear both sides: Miller—I wonder why Jones wasn't appointed on the jury.

Muller—He was rejected on the ground that he couldn't hear both sides.

Miller—How so?

Muller—Why, he is deaf in one ear.

—"Have you fixed up my will?" said the sick man to Lawyer Quillips.

"Yes."

"Everything as tight as you can make it?"

"Entirely so."

"Well, now, I want to ask you something—not professionally, but as a plain, everyday man. Who do you honestly think stands the best show for getting the property?"

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A cream of tartar baking powder Highest of all in leavening strength.—*Latest U. S. Government Food Report.*

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The members of the Kern County Land Company have a national reputation for wealth, business and financial ability. These facts set the matter of reliability at rest. The company's capital stock is $10,000,000.

They have 400,000 acres of arable, irrigable lands upon which the sun shines almost constantly; and their enormous irrigation system renders them independent of the annual rainfall.

A clear title; rotation, variety and certainty of crops; easy terms; availability to persons in moderate circumstances; ground ready for the plow—no stones nor thistles; good society; schools; churches, etc., are a few notable attractions of this region of country.

Kern is the largest county in the San Joaquin Valley. It has the finest climate for curing and drying fruits, etc.

The 400,000-acre territory of the Kern County Land Company is the pick of the county.

Its area is 5,184,000 acres.

Has the largest irrigation system in America.

The home of the peach, French prune, pear and raisin grape.

Planting and harvesting can be carried on every month in the year.

No rocks, hills or stumps on the land.

A failure of crops is unknown on irrigated lands.

Kern county fruits take the first prize at the State Fair.

Land can be made to pay for itself in less than three years.

Grows more alfalfa than any other county in California.

The advantages of good soil and plenty of sun, which occur in the Kern Valley, would have been of little avail but for the third and all-important one of an abundance of water from never-failing sources.

Through 300 miles of main canals, and 1,100 miles of laterals, the great Kern river furnishes enough moisture to slake the thirst of the 400,000 acres already referred to.

Drought is out of the question.

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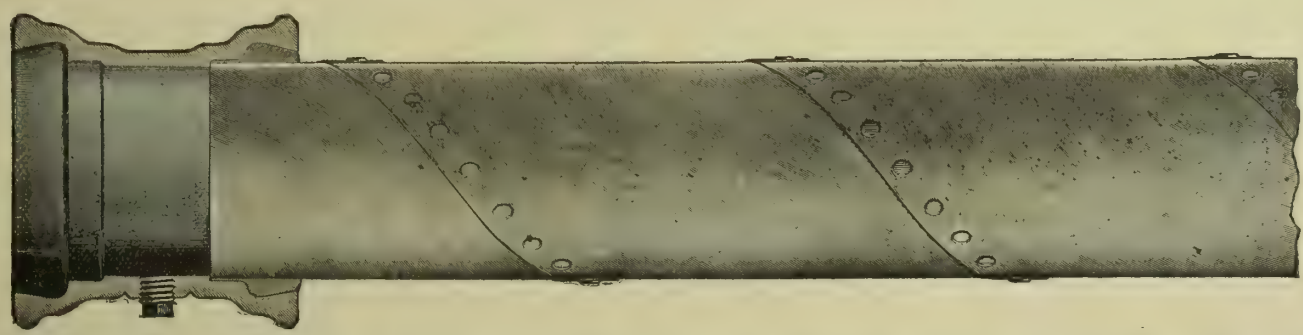

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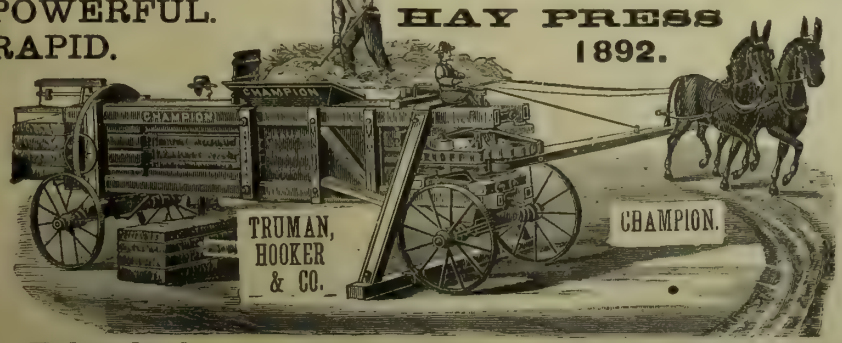

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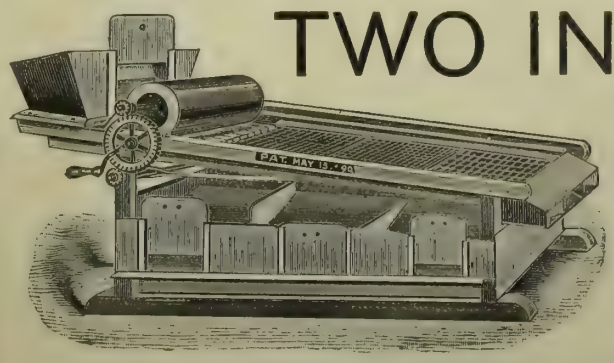

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ECONOMICAL.

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AGRICULTURAL NOTES.

CALIFORNIA.

Fresno.

ORCHARD DRAINAGE. — Fresno *Republican:* The condition of many orchards and vineyards in irrigated districts can, without doubt, be greatly improved by drainage. They may do fairly well without it, but in every instance where it has been tried, the results have fully justified the expenditure. On the Kimble orchard of 540 acres, near Grangeville, drain tile is being used to draw off the water from a portion of the orchard when it comes too near the surface. It drains into a well, and is then pumped into a flume, which carries it back into an irrigating ditch. This double use of the water is another feature of importance in districts where the supply of water is not greater than the demand.

Kern.

IRRIGATION NOTE.—Alila Cor. Visalia *Delta:* The prospects of the Kern and Tulare irrigation district are brightening, and there is now a feeling that before many years southern Tulare and northern Kern will be as well irrigated as any other section of the State. One by one the irrigation districts are "getting there," and Kern and Tulare will not be far behind.

Los Angeles.

FARM AND ORCHARD NOTES IN ANTELOPE VALLEY.—Lancaster Cor. L. A. *Express:* Although the wheat crop was light this year, the trees and vines are doing handsomely, and the three and four year olds are making a fine record. In addition to the immense acreage of trees put out last year by the Fairmount Land and Water Co., Edson, Arnold and Matt Glesser, amounting to over 500 acres, the same parties will put over 1000 acres to deciduous fruits, almonds, olives and vines. Gen. Beale has also given orders for the putting of two sections to olives, almonds and deciduous fruits. With the small farmers who will set five, ten and twenty acre orchards and vineyards, it is safe to say there will be over 5000 acres of trees set this year in Antelope valley, west of the Southern Pacific Railroad, and most of this will be in Los Angeles county. E. S. Waite has commenced an artesian well on his place near Rosamond, and has arranged for sinking a half dozen more for his neighbors. The bringing in of water from the Cottonwood and Oak creeks, together with the artesian well development and the extension of the Santa Fe for a distance of 70 miles through the most productive portion of this valley, makes the prospect pleasing and the outlook altogether lovely.

Modoc.

PRINCIPAL VALLEYS IN LASSEN AND MODOC. Adin *Argus:* We give below the areas of several of the principal valleys of Modoc and Lassen counties: Honey Lake and Long valleys, 250,000 acres; Eagle Lake and Susan River valleys, 100,000; Madeline plains, 150,000; Big valley, 260,000; Fall River and Little Hot Spring valley, 35,000; Big Hot Spring valley, 125,000; Surprise valley and Lake region, 300,000; Goose Lake valley north to Chewaucan, 250,000; Tule lake and marsh, 75,000. The above figures will be of particular interest to nearly everybody. They were collected a few weeks ago by a Mr. Pierce, to be reported to railroad officials as data relative to the trade that would be given a railroad if built from somewhere near Reno to tap southern Oregon. The figures show Big valley to have a larger area than any other locality taken separately; 260,000 acres of land is a large body, and of this amount only about one-third is estimated to be cultivated, and that only partially, the farmers raising only enough for home consumption, as they have no other market. We have rich lands that only need a market inducement to cause them to be cultivated and improved by the owners.

Orange.

ORGANIZED TO EXTERMINATE THE SCALE. Santa Ana *Blade*: A company has been formed recently in Tustin for the purpose of more thoroughly exterminating the scale by the process of fumigation. It is to be known as the Prospect Avenue Fumigating Co., and its members are S. W. Preble, A. Guy Smith, W. E. Jukes, Thos. Smith, J. S. Rice and A. E. Bennett. Mr. Bennett is to be superintendent of the work done. The new company has gone to work with energy and a determination to improve the process in any way possible, and to impress upon the minds of fruit growers the necessity of fumigating, as nearly as possible, at the same time, thus lessening the probability of one orchard infecting another—a thing so certain and so much to be deplored where one orchard is cared for and free from scale and the adjoining one is dying. Ten new Riverside sheet tents are to be built immediately, and improvements are being made on the derrick.

DRIED APRICOT CROP.—S. A. *Blade*: Apricot-drying and packing is about completed in this city. A very large amount of fruit has been handled, and a good deal of money has changed hands. Fully 2000 tons of apricots have been handled in this city alone. The Germain Fruit Co. has put up 185 tons of dried fruit, and 160 tons have been packed by the Collins Fruit Co. Prices for the dried product have ranged all the way from 8 to 13½ cents per pound. The majority of the shipments has been made per the Santa Fe. Most of the peaches raised hereabouts will be shipped to the Ontario and Colton canneries. Prices run from $17 to $22 per ton for the ripe fruit.

Placer.

FRUIT SHIPMENTS.—Auburn *Republican:* The fruit-shipping business at Penyrn will be greater than any previous season. Five carloads were shipped from that place last Saturday. During this week the shipments will reach six or seven cars per day. There are three wholesale shipping houses at Penryn this season. The California Fruit Company, with Charles Ludlow as manager, is doing a fine business. Porter Bros.' Company established a branch house at Penryn and are having a good run of business. The Penryn Fruit Company is doing by far the largest volume of business this season of any year since it was established. This company has shipped more fruit to date this season than any house in Placer county. The Cooperative Company at Newcastle comes in second for amount of fruit shipments, with the house of George D. Kellogg as a close third.

Sacramento.

HOP NOTES.—*Daily News:* There is very little change in the appearance of the hop yards, except that the warm weather has done a great deal toward showing up the condition of the vines. The hops are now coming on very fast, and all the growers are watching them closely so as to commence picking in plenty of time. It will be remembered that at about this time last year the extremely warm weather which came on rather unexpectedly, caused many of the hops to ripen suddenly and to turn red before they could be gathered. Johnson Sides and other Piute Indians have made arrangements to be here next week and they will be followed by plenty of other Indians, Chinese, Japanese and a sprinkling of white men, so there is not likely to be a scarcity of labor for the picking season. It has been suggested that before the season for picking has commenced the growers ought to come together at a convenient place and talk over the crop prospects and arrange the prices they intend to pay for picking, so that all will stand the chance of getting their crops housed in good season. There is a good reason for this movement, as it happened in previous years that different rates being paid by different people had a demoralizing effect upon the pickers. In looking over the hop yards a great many bastard vines are noticed. These vines make good growth and cannot be detected until they blossom out, when it is noticed that the bloom is part male and part female. It does not make good pollen nor good hops, so they are a dead loss and should be staked and grubbed out when pruning. The McGee Brothers, nine miles below town, have the promise of as good a yield as last season. The samples shown from their yards last year were the very best. J. J. Merkeley has commenced building a hop kiln after the style of Croley & Irvine's, a description of which was given in this paper of two weeks ago.

San Diego.

THE FRUIT CROP.—S. D. *Union*: R. H. Hewitt, who has been in the city for the past few days in the interest of the State Board of Horticulture, informs a *Union* reporter that the fruit crop throughout Southern California is unusually heavy; that in many instances trees and orchards are so heavily laden that it is impossible for the fruit to mature and ripen properly. Apricots are above the average in quality and quantity, but the low price offered for green fruit has induced the majority of producers to dry the greater part of their crop. Peaches, nectarines and melons are reported late, owing to the coolness of the season. The prune crop will be less than last year, as a great deal of the fruit has fallen from the trees.

PROLIFIC OLIVES.—S. D. *Sun:* The "Rubra" variety of olives, which E. Banard imported three years ago from Montpellier, France, is making a marvelous showing in his Mission Valley grounds, as a number of visitors discovered yesterday. The theory that olive trees must be 20 years old to yield large crops is disproved by these young trees, which are so weighted and crowded with berries that props will soon have to be used to save the branches from breaking down. The Uvaria is another French variety and is one of the best for oil. The Queen and Nevadillo are also imported olives of vigorous growth. The Prussian mulberry, now ripening luscious fruit, is in another part of the tract, near an avenue of Abyssinian bananas.

A DESERT DOOMED.—Madera *Mercury*: The wonderful results of irrigation have been shown in a most remarkable manner by a freak of the Colorado river. Last year the mystery of Salton lake attracted the attention and wonder of the State until its source was found in a break in the river bank. This year a phenomenon not less wonderful is to be seen in the same region. The desert has been transformed. The bare sands that have made the region terrible to travelers and stockmen have given place to verdure. Underbrush has covered the country in the line of the inundation, and where only the hardiest desert plants could before maintain a precarious struggle for existence, luxuriant vegetation now covers the land. The desert is doomed. Its disappearance may not be seen by this generation or the next, yet the time is coming when orchards and fields will cover the thousands of square miles now given over to desolation. The infrequent desert plant and the occasional buzzard will give way to all the products of the tropical and semitropical lands that its position is fit to raise. The day may come when the present Colorado desert will be reckoned among the most productive lands in California. There was a time when the plains of Kern and Tulare were held but little more in esteem than the desert of to-day. The magic power of irrigation has transformed the old alkali plains into a garden, and it will do as much for the dreaded Colorado desert.

Santa Clara.

FRUIT NOTES AROUND LOS GATOS.—Cor. *Mercury*: The returns from the orchards continue favorable. Fruit comes in such quantities that the driers and canneries have to run until midnight and sometimes until morning. It is quite true that a month ago numbers of men and women were seeking work, where now help is insufficient. Time will remedy these irregularities and bring in industries that will give permanent employment. Irregular as the work is, the year's income to the laborer will compare favorably with many old manufacturing places that run the year around.

Sonoma.

HOP GROWERS' MEETING.—Santa Rosa *Democrat:* The Sonoma County Hop Growers' Association met in regular session in the office of President Guy E. Grosse Saturday. There was a good attendance present. Concerning the price for picking, Mr. Ross said he did not see any reason to change the price from last year, $1 per hundred. He made a motion to that effect. Some discussion followed concerning the change made in the price after picking commenced last year. Many of the growers were compelled to give $1.10. The prevailing sentiment seemed to be in favor of $1, and Mr. Ross' motion to that effect was carried. There were present at the meeting three buyers from San Francisco, Messrs. Elliser, Britton and Ottenheimer, and President Grosse called upon them to say something. Mr. Elliser said that a few years ago Sonoma county hops were the best on the coast. It is not exactly so at this time. If the growers will ask themselves the reason, they will find the fault rests with the handling of the crop. Formerly the hops of Sonoma county were more cleanly picked than those of any other county in the Union, and perhaps in the world. Last year the crop was very dirty. He excused himself for such plain speaking, but asserted that the growers needed a talking to. He advised, in the first place, that baskets be used instead of sacks. It will prevent sweating and obviate the dirty picking. Greater care should be taken in the drying and curing of hops. Concerning the baling of hops, he said that the horse power press was much superior to the tramping system. As to the tare, he said that in selling hops to the brewers it was the rule to allow five pounds tare.

Sutter.

REDUCTION IN HAY FREIGHT.—Yuba City *Independent:* The Southern Pacific Company, in order to remove the surplus hay crop to a profitable market, has agreed to make a special rate of $2.40 per ton to San Francisco for this season. This is quite a material reduction from the regular rates and will encourage owners of hay to bale for the San Francisco market.

RAISIN GROWERS ORGANIZING.—*Independent:* The unsatisfactory prices heretofore obtained for their product by California raisin growers have resulted in the organization of an association which is to take in at least 75 per cent of the growers, the object of which is to fix and maintain a minimum price at which good raisins may be sold. A large meeting of growers was held at Fresno, at which the initial steps in the organization was taken. The price agreed upon as a minimum is 4½ cents a pound in the sweat-box. Agents were immediately put into the field to canvass for signatures to the compact, and the call was responded to with alacrity. Up to August 1st nearly or quite 1000 growers had signed the compact. The growers have made out a price-list at which they will sell packed goods. These range from ten cents a pound for the best to four cents for inferior grades. The packers who have signed the compact packed last year 30,000,000 pounds of raisins. Both the growers and packers are in excellent spirits, feeling that the critical stage has passed and that the organization is an assured success. On Monday Mr. Murdock of College City came over to Yuba City to canvass among the growers here, and we understand he met with complete success, all the growers whom he saw entering heartily into the agreement.

HARVESTING BY STEAM.—Y. C. *Farmer:* In company with George Ohleyer, a *Farmer* reporter visited the Stoker steam traction harvesting outfit. The machine was at work on the Elmer place near Yuba City, now rented by A. J. Spencer. These outfits are almost a marvel in their construction and have greatly revolutionized the work of harvesting. With the big traction engine to draw the harvester and a separate stationary engine on the harvester to furnish power to run the machinery, any kind of grain can be headed, threshed and cleaned in first-class manner and very rapidly. The header cuts 25 feet, and on good grain about 70 acres per day is the average. The grain was turning out fairly on the place, and the quality was above the average. Several of these big machines are in operation in this county and doing excellent work.

Tulare.

THE EMPIRE STATE, A BOSS ARBOR GRAPE.—Tulare *Register*: Josh Woswick hauled a reporter out to his place last Saturday to gaze on a grape vine that is a wonder. The vine was set out a year ago and the present summer it has made a growth of 75 feet. It is growing on a six-foot lath fence and has completely hidden he fence from view, and there are over 500 pounds of white grapes on it. They are just getting ripe. In flavor they are between the Sweetwater and the Muscat, and about the same size. They are called the Empire State, and are certainly the "boss" arbor grape, as they would make a complete arbor in one season. Moore's Early is another grape we were permitted to taste. The Moore is a black grape of good size and about the same flavor as the Concord that the Eastern people harp on so much. It has been ripe for over a week. It does not seem to bear as heavily as the Empire State or make such a growth, but it comes in earlier.

VARIETIES OF FRUIT TO PLANT.—C. J. Berry in Visalia *Times:* My observation has been that the early varieties of peaches, such as Briggs' Red May, Alexander, Hale's Early and other early varieties, do not produce, with us, a good variety of fruit, not near as good as the same varieties give the grower of Vaca valley and other valleys of the Sacramento river. These early kinds of peaches are used principally for shipping to the Eastern markets, and our position is such that, being handicapped by freights as we are, and the quality of these early peaches with us being not of the best for shipping, and knowing that they are quite poor driers, it is best for us not to plant them. The first best variety of peach we should plant here for drying is the Foster and then the Crawford, both early and late, Susquehanna, Muir, Orange Clings, Phillips' Clings, McDevitt's Clings, and any other yellow cling known to be good. The Elberta is a tiptop freestone to plant and ripens about the time of the Muir. The Solway is a first-class yellow freestone, ripens late and is a very heavy producer with us. I would suggest to the orchardist to avoid the new varieties that are continually being offered by nurserymen, unless they are undoubtedly backed up by the strongest kind of recommendations. The best prune to plant is the Petite or French on peach roots principally, but when your ground is very wet and somewhat "soggy," it is best then to use the plum root. This latter root does not giv you as large a tree as the peach root, and for that reason you will not have as big a crop, because your trees won't grow big enough to hold as much fruit as they will if on peach roots. In regard to early plums, such as Peach, Tragedy, Clymer and others, I would suggest that a few trees of them will pay you better than a large number. Most of these early varieties of plums a e "shy bearers," and, as they are only fit to ship, our excessive freight places us in the position of being at a disadvantage when compared to the producer near Sacramento, the starting point for Eastern shipment. The Bartlett pear grows here to perfection. Nowhere in these United States do they grow any better, and many places not as good. They bear at an early age and yield good returns. The Winter Nelis pear is also a good fruit with us—yields first class and is always salable. The tree is a vigorous grower and will give you a big crop. These varieties of fruit mentioned, in my opinion, are the ones to plant in our district.

ARIZONA.

LARGE IRRIGATION SYSTEM.—Tucson Cor. Los Angeles *Times:* Arizona is at present undergoing a grand transformation similar to that which took place in California 30 years ago. Tha era of agriculture is treading close upon the heels of the era of mining. Here, as in California in early days, there were many, a few years ago, who believed that nothing could ever be grown upon the mesas of the Territory. Today, around Phœnix, there are 250,000 acres under the various canals, over 5000 acres of which are in fruit. To merely enumerate the many irrigation enterprises of Arizona, completed, under way, and under consideration, would need half a column of your space. Maneopa county being the first to start in this direction, has done the most, but other counties are rapidly coming to the front. The Wolfley canal, from the Gila river, at Gila Bend, covers a big tract of land. The Florence canal is changing the arid mesa around Casa Grande to a smiling garden. In Yuma county there is a great project to take water out of the Colorado, north of Yuma, and run canals on both sides of the river, crossing the Gila by an inverted syphon. Land around and south of Yuma is adapted to the culture of bananas, sugar-cane and other tropical products. As the Colorado is a navigable river, this work would probably need an Act of Congress to authorize it. Surveys have been made for another canal from the Gila river, seven miles above Solomonville, which would cover 100,000 acres in the San Simon valley, in Cochise county, one of the finest valleys in Arizona, the scene of many a bloody tussle with the Apache in bygone days. There are other irrigation enterprises too numerous for mention. Even Harqua Hala, the new mining camp, has an irrigation enterprise on foot. European capital is seeking such enterprises. Many southern Californians are investing in canal schemes in the southwestern part of the territory. Some Riversiders will plant oranges around Yuma. It is found that less water is needed on our agricultural land every year, the land getting well soaked. Everything can be raised that is raised in southern California, except oranges and lemons. These are being planted on a considerable scale around Phœnix, but I think the business is a risky one outside of Yuma county. Our fruit is all from four to six weeks earlier than yours.

NEVADA.

CURRANT CULTURE.—Virginia *Enterprise*: It cannot be truly said that the Comstock is entirely without agriculture. At the foot of Washington street there is a ranch, the property of Albert Mann, which provides the Virginia market with nearly all the currants consumed here. The currants grown on Mr. Mann's ranch are much superior to those raised in Washoe or Carson valleys, and command a much higher price from local dealers. They are large and finely flavored and form a testimonial to certain virtues of the Comstock soil which few people have any idea it possesses. Sample branches of the bushes with fruit, which may be seen at Hatch Bros., the City bakery, the Arcade saloon, and various other places, speak for themselves. Mr. Mann raises a small variety of other fruits, but the ranch is dedicated chiefly to currants, which form its profitable and practicable feature. There is about an acre of bushes on the ranch, which vary in age from one to eight years. This season's crop of berries is very heavy, and the proprietor of the ranch is so encouraged by his success in their culture that he proposes to put out two acres more of them next spring.

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500,000 FRUIT TREES!

Orange, Lemon, Lime, Olive, Japan Persimmon, and all kinds of Nut-Bearing Trees Shade and Ornamental Trees, Shrubs, Etc.

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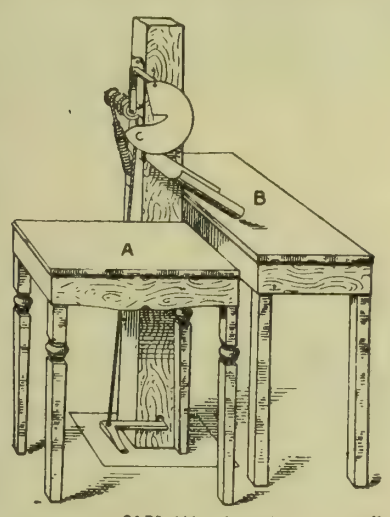

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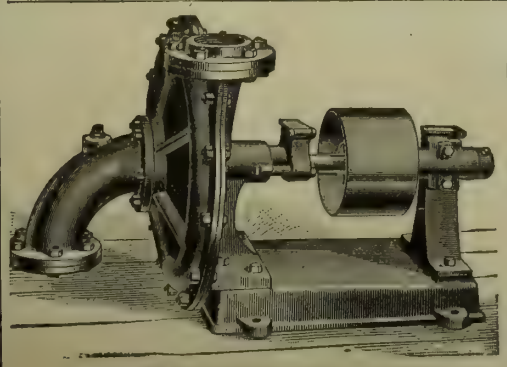

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Assets, January 1, 1891	867,512 19
Capital Paid Up in Gold	300,000 00
NET SURPLUS over everything	278 901 10

PATRONS OF HUSBANDRY.

The Secretary's Column.

By A. T. Dewey, Secretary State Grange of California.

TEMESCAL GRANGE had an interesting meeting last Saturday evening. Overseer Woodhams read an interesting article on the desirability of more practical education. Remarks on the above and other subjects were made by a number of members. W. Renwick, W. M., was congratulated on his entire recovery from a painful surgical operation. Sister Kinney of this Grange is now fortunately recovering from a dangerous illness. The next meeting occurs at 2 P. M., Aug. 20th.

THE "BIG SIX."—The six largest Granges in California reported their membership for the last quarter as follows: Sacramento, 128; San Jose, 128; Waterloo, 120; Yuba City, 119; Santa Rosa, 107; Watsonville, 104. How many of the above will increase their numbers before the State Grange meets? Which will reach the 150 mark first? How many other Granges will work up a large list in the meantime? Let us see if several more cannot count 100 and over by Oct. 4th.

KEEP your brain cool, your head level and your heart right in the coming presidential campaign. Don't swing your hat and whoop it up for any candidate until he has given you good reason to believe that, if elected, he will stand by your interests sure and steadfast. Don't be caught by claptrap talk about sticking to your party. Vote for the man whom you believe to be the best qualified for the position, no matter by which party nominated. That is the only way to secure good, honest government.—Farmer's Friend.

THERE is a general misapprehension that the leaders are the party and that its office-holders constitute its strength. That is a mistake. The leaders are public servants, whose abilities or adaptations for leadership make them occupy that position; but their only power is to do the will of the majority of the members of the party. The party membership is the rank and file, the voters who support it. The leaders have no legitimate purpose or power except to enforce and carry out the will of the members of the party, and when, for the sake of being continued in office, they misrepresent the wishes of the rank and file, the party generally goes to the wall.—Farmer's Friend.

SAN JOSE GRANGE.—The *Mercury* of July 23d reports that Mrs. Maggie Downing Brainard (editress of "Tree and Vine") read an able article entitled "Political Possibilities of the Farmer." The closing paragraphs we quote as follows:

"The most cultured minds, refined manners and brightest intellects are found on our mountain tops in rich vineyards, or in our valleys amid fruit-laden orchards. Tell me, will you, these men are not able to legislate, to grace every hall of learning, or stand in pitched battle with any Congressman? Never, no never.

"Then let the farmer assert the manhood that is in him, take the hammers of worth, integrity and freedom into his own hand and crush beneath their sledging weight monopoly and aggrandisement. He alone, being the founder of prosperity, can accomplish this, but—only through union and determination.

"When the planters of trees, of vineyards, of cotton, of corn, of grains, of all vegetable commodities, make their resolution to assert their proper influence and form their decisions on practical technicalities, making, I say, their votes to stand by them and by each other as strong and binding as the Mason's tie, teaching them to the babe in cradle, the boy at his knee, the man as he becomes a voter, the maiden who weds and the mother who rears her offspring. Educate the children on instead of off the farm. When they have systematized such a course, every political and economic possibility will be their's. It stands at present in their grasp; the halo of success is just above each head—there is nothing lacking but organization and a firm resolve to stick to each other or die. Then Prosperity, folding her wings, will rest here among us, and the farmer, covered with honor, will live in his just and hereditary rights."

The appeal made by the National Grange Committee on Woman's Work, published in in part in the Secretary's Column some time since, was discussed by the members.

EUREKA.—Bro. B. A. Giantvalley, P. M., reports this Grange is still thriving. Bro. Giantvalley intends going to Napa county soon. We hope he may be induced to try to revive the Order in that pioneer Grange county, which formerly had several most excellent Granges.

THE ANTI-OPTION BILL LAID OVER.—The following correspondence is self-explanatory:

"UNITED STATES SENATE.
WASHINGTON, D. C., Aug. 2, 1892.

A. T. Dewey, Esq., Sec. S. G.—DEAR SIR: Your favor of the 25th ult. with enclosures relative to the Anti-option bill is at hand and contents attentively noted.

I supported the measure, believing it was the desire of the farmers of California.

You have doubtless been apprised of the fact that the bill was deferred for final consideration and action until the assembling of Congress in December.

This result, in view of the circumstances, appeared to be unavoidable. Sincerely yours,
C. N. FELTON."

BRO. H. T. FRENCH, Professor of Agriculture of the Experiment Station of the Agricultural College of Oregon at Corvallis, recently called at our office. After a week or two spent in examining the leading dairies in Marin and Santa Clara counties, he was hurried home by a dispatch demanding his attention to Farmers' Institute meetings in Oregon. A severe cold and his early departure prevented his paying San Jose and Yuba City Granges what, we believe, would have proved a mutually interesting visit.

BRO. WILLIAMS, P. M. of Yuba City Grange, called on us last week.

PAST MASTER DANIEL FLINT has for several days been enjoying the rough bay weather in San Francisco. He reports enjoying the recent lecture canvass with Bros. Walton, McConnell and Caples, and is already anticipating the pleasures of the State Grange session at San Jose.

SISTER A. ADAMS, Chairman of the Literary Committee, we learn, invites original contributions for the coming State Grange session. We hope our many talented sisters, whether they have heretofore contributed or not, will send early notice of their intended contributions to Sister Adams at San Jose. We have no doubt the literary exercises will prove equal to the best we have ever had.

WE learn from the *Mercury* that San Jose Grange last Saturday held a very enthusiastic meeting. Brother Adams brought up the question of ramie culture. Mrs. Snow reported that plants contributed by the State Ramie Commissioner, W. H. Murray, were growing rapidly. Sister N. A. Sanders mentioned an effort being made by the Women's Industrial Organization. Its object is to put up a building for the accommodation of industrial women at the World's Fair. The expense of joining will be $10, and it is expected to furnish rooms in the building at 35 cents per day.

The Grange attended a Fruit and Flower Mission entertainment at which an original poem by Sister Brainard, entitled "The Flower Mission," was one of the special features of the occasion. It was decided to have it dramatized and presented at the State Grange meeting in October.

GOOD GRANGE RULES.

The following from the *Farmer's Friend* is worth pasting up in every Grange Hall:

"Worthy Lecturer," inquired the Master, "have you placed in the hands of the Worthy Overseer the rules or system of work you indicate?"

"No, Worthy Master," he replied, "they concern the workers no less than the officers. It is proposed that this Grange accept, abide by and maintain the following agreement:

1. That the Grange shall open promptly at the hour designated, and that each one shall, in the absence of a reasonable excuse in his own mind, be present, and if possible on time.
2. The presiding officer shall not permit unnecessary delay in the routine work.
3. Each one to whom a work may be specially assigned, to accept the same, and, if possible, be ready to respond at the time appointed.
4. In the discussion of questions after the opening proposition and argument are made, the succeeding remarks of each speaker to be limited to five minutes, unless otherwise ordered.
5. When needed, the Lecturer to be prepared to furnish new work of interest or profit.
6. "For the Good of the Order," each one, as there may be opportunity, to make a suggestion, give an experience, ask a question or read an article or item from an agricultural paper, or propose a subject for investigation and discussion at a future time.
7. The Worthy Master to limit the time under the 5th and 6th rules, and close the Grange at an hour that all may reach their homes at a seasonable hour.

TOBACCO AND GUM DISCUSSION.

The *Leader* of Centerville, Wash., reports a recent discussion by the Grangers' Business Council of two resolutions on the use of tobacco, cigarettes and gum. The *Leader* says: "One resolution was particularly directed against school teachers for using it in or near schools. We must admit that it is a bad example to the school children, and agree with the resolution in theory, for we are aware that a number of teachers use it in the schools to excess, fumigating the schoolroom with its unsavory odors, while they, the teachers themselves, become distasteful to the scholars through being brought into such close contact with them. Though we agree with the resolution in theory, it is imposible for us to coincide with it altogether, for the action of the Grange Council falls far too short of what a resolution of that description should aim at. If it is necessary to condemn the use of tobacco, then make it more sweeping in its character. We do not feel like restricting school teachers from using it, providing they do not make themselves obnoxious by it, while it is allowed to hundreds of others who come in contact with children. We have no business to interfere with the rights of any class of people, and until the restriction affects all classes, no one should single out the school teacher from refraining from that which they themselves indulge in. But it affects ladies as well as gentlemen, for it is just as bad to have a "quid" of gum in the mouth as tobacco. The use of cigarettes was also discussed. There is a crusade all over the land against the production of them, but the manufacture is still on the increase. The fiscal year ending June 30, 1891, affords an interesting study of the growth of the cigarette habit in this country. During 1891 the local production of cigarettes amounted to 2,976,270,885, while 2,802,125 were imported, thus making a total of 2,979,073,101 cigarettes in the United States. During the same year 298,139,700 were exported, leaving a balance on hand for home consumption of 2,680,934,660. Assuming that there are 62 500,000 people in this country, the consumption would average 47 for every man, woman and child in the United States for the year. The increase of 1891 over 1890 was nearly 500,000,000. The commissioners' report for the present fiscal year, ending June 30, is not yet published, but when it is out the result will be read with interest."

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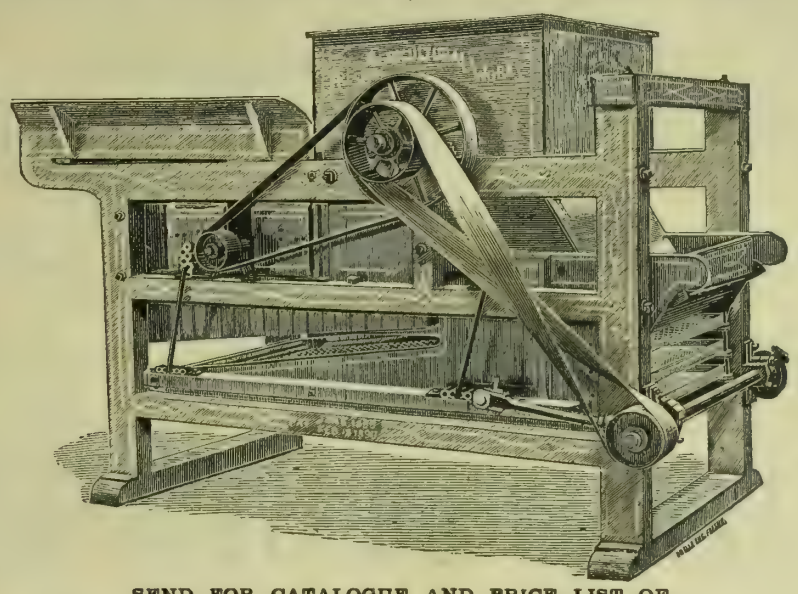

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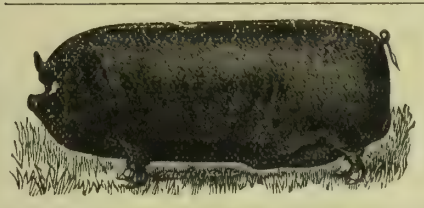

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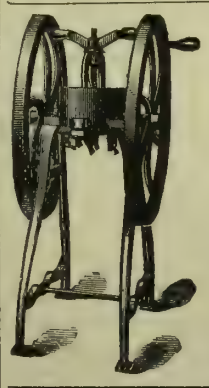

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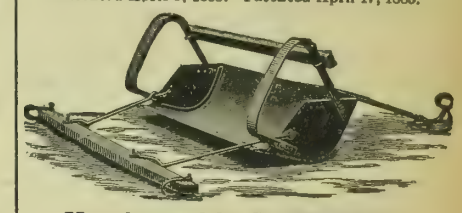

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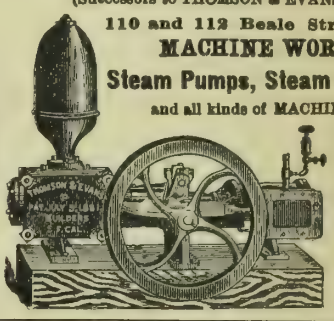

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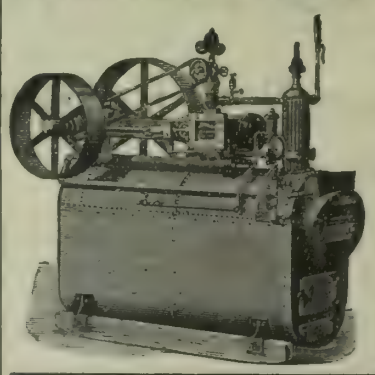

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S. F. MARKET REPORT

Market Review.

SAN FRANCISCO, Aug. 10, 1892.

During the past week under review, farm products have held to remarkably steady prices, with a firm undertone in several lines notwithstanding a persistent bear pressure brought to bear on them. The persistency with which farmers, as a rule, hold their wheat is making itself felt in the freight markets, for we notice that ships are reluctantly accepting slightly lower (say 25s iron to U. K. f. o.) charters so as to secure outward cargoes, and as there is a large list of disengaged vessels in port, it may possibly be necessary to accept still lower rates, and every decline favors the wheat interest. While farmers are being benefited by a decline in outward charters, the decline is more than offset by a decline in the market value of silver. The lower that the price of silver is forced, the cheaper England and the Continent can import wheat from India, Russia, Chili and other countries which use silver either wholly or largely for a metallic currency. Cheap wheat from the silver-using countries lessens the value of wheat from the United States and other gold-standard countries. This is an important factor which operators in wheat keep in view, and it is well for farmers to do the same. Barley made a slight advance under more active trading but at the close the bears are trying to get prices down. The buying has been for both home and export and confined largely to the better grades. Oats, under limited supplies and a good demand, have held strong. Corn, after selling at lower prices, is again showing signs of advancing under stronger markets at the East, a good demand from Mexico and a certainty that the crop in this State will be short. Rye was easier at lower prices; at the decline, exporters will be able to enter the market. Ground feed has met with a continued large demand. The consumption so far this summer has been the largest on record, with the future holding out the promise of a continued free demand. Hay has ruled weak for the poorer grades under heavy receipts, but fairly steady for the better grades. An effort was made to advance creamery butter, but it looks as if it will prove a failure owing to liberal supplies of choice to gilt-edged dairy or roll butter being available. Cheese has held steady, while eggs have been irregular. Garden stuff has met with a good demand, but heavy receipts of egg plants, cucumbers, etc., held prices down; the only vegetable which kept up was tomatoes. There is a shortage in the tomato crop, both on this coast and at the East. Onions did not change. Choice, good-keeping potatoes held strong, but poor to fair were in buyers' favor. Poultry was scarce and strong throughout the week, particularly large-sized and fat fowls. Honey was quiet but strong. Mustard seed was offered for less money. Buyers and sellers are apart on new crop hops; old hops are out of market. Wool continues to rule very low, with considerable difficulty said to be met in placing consignments. The low freights by sail to Atlantic seaports are in favor of shippers of wool, canned fruits, beans and similar produce. The rate of freight ranges from $3 to $4 per ton, which is a heavy cut on rates heretofore ruling. The Pacific Mail Steamship Co. is making lower rates on shipments via Panama, and it is claimed that lower freights overland will rule as soon as the Transcontinental Association meets. The fruit market has been buoyant for the more choice tree fruits suitable for canners and strong for choice, good-keeping fruits for shipment to the East. The average daily sales by auction, through two agencies, of California fruit at New York, Boston Chicago and Minneapolis, are over 20 carloads. The sales of other agencies as also the consignments to other cities are not reported by telegraph, so we are unable to include them. These large consignments have been sold at good prices. It is claimed that the Eastern markets would take still larger consignments without breaking prices. The shipments of green fruit to England promise to be successful, but it will take time to disabuse the English of the many erroneous ideas which they now entertain. The local or San Francisco market is being glutted with poor-keeping and also trashy fruit, which works an injury to the more choice. The auction sales in this city are proving an injury rather than a benefit to the industry. Berries have met with a fair demand. Grapes continue to come in more or less sour and poor; probably the cool weather is against their maturing properly. Melons under free receipts and cool weather have declined. Black figs are very scarce. A consignment of navel oranges came to hand the past week from Australia. The quality is said to have been good. They sold at $3 per box. The consignee cabled for heavier shipments. Efforts are being made to break the dried fruit market, but so far as we are able to learn it is not proving a success. The quantity that will be cured this year will be very considerably less than it was last year, while the quality, as a whole, will be much better. The fact must not be lost sight of that next spring there will be a larger Eastern demand than ever before known. This opinion is based on the small crop of fruit at the East and also abroad, and the very small stock of the 1891 curing on hand at the commencement of the season, and also that the consumption will be very heavy owing to the throngs that will visit the World's Fair.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	Aug.	Sept.	Oct.	Nov.	Dec.
Thursday	6s07½d	6s06¾d	6s07d	6s07½d	6s07½d
Friday	6s06½d	6s07d	6s07¼d	6s06d	6s08¼d
Saturday	6s07½d	6s06½d	6s07d	6s07½d	6s07¼d
Monday	6s06¾d	6s06¾d	6s07½d	6s07¾d	6s06d
Tuesday	6s06d	6s06d	6s05¾d	6s07d	6s07½d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. O.	P. S.	N. D.	Market for P. S.	Weather.
Thursday	34s3d	34s3d	34s0d	Firm.	Firm.
Friday	34s6d	34s3d	34s6d	Firm.	Firm.
Saturday	34s6d	34s6d	34s6d	Quiet.	.....
Monday	34s9d	34s9d	34s9d	Firm.	.....
Tuesday	35s0d	35s0d	35s0d	Firm.	Local rains.

To-day's cablegram is as follows:

LIVERPOOL, Aug. 10.—Wheat—Weaker. California spot lots, 7s; off coast, 34s 9d; just shipped, 34s 9d; nearly due, 34s 9d; cargoes off coast, slow and probably cheaper; on passage, 3d lower; Mark Lane wheat, slower; French country markets, slow.

New York.

The following shows the closing prices of wheat for the past week:

Day.	Aug.	Sept.	Oct.	Dec.
Thursday	139⅝	141	....	147¾
Friday	138⅞	140½	....	147
Saturday	139	140	....	146¾
Monday	140⅛	141⅛	....	148⅛
Tuesday	139⅞	140½	143	147

The following are to-days' telegram:

NEW YORK, Aug. 10. Wheat—83¼c for August, 84¼c for September, and 88¼ for December.

CHICAGO, Aug. 10.—Wheat—78½c for September, 81¼c for December, and 70⅝c for October.

San Francisco.

WHEAT.

	Seller '92.	Buyer Aug.	Buyer Sept.	Buyer Oct.	Buyer Dec
Thursday, high st.	136⅝	....	....	....	142½
" lowest	135⅝	....	....	....	142⅜
Friday, highest	136½	....	138½	....	142⅝
" lowest	136½	....	138¼	....	142⅝
Saturday, highest	136⅝	137½	....	....	143
" lowest	136⅝	137½	....	....	142⅞
Monday, highest	137½	....	....	....	144
" lowest	137½	....	....	....	143¾
Tuesday, highest	137	....	....	....	143½
" lowest	136¾	....	....	....	143

The following are to-day's recorded sales on Call:

Wheat—Morning Informal—Buyer December—200 tons, $1.43; 100, $1.42⅞. Regular session. Seller 1892—100 tons. $1.36⅞ ₩ ctl. Afternoon Buyer December—100 tons, $1.42⅞; Seller 1892—100 tons, $1.36⅞ ₩ ctl.

BARLEY.

	Seller '92.	Buyer Aug.	Buyer Sept.	Buyer Oct.	Buyer Dec
Thursday, highest	94⅝	....	....	....	97⅝
" lowest	94½	....	....	....	99¾
Friday, highest	94¾	....	....	....	100
" lowest	94½	....	....	....	99⅞
Saturday, highest	93⅝	....	....	....	98¾
" lowest	93½	....	....	....	98¼
Monday, highest	93½	....	....	....	....
" lowest	93	....	....	....	....
Tuesday, highest	93⅝	....	....	....	98½
" lowest	93½	....	....	....	98½

The following are to-day's recorded sales on Call:

Barley—Informal—Buyer December—100 tons, 98½c; 100, 98⅝c. Seller 1892 new—100 tons, 93c ₩ ctl. Regular session: Seller 1892—800 tons, 92½c; 100, 92⅞c. December—1500 tons, 98c; 500, 98½c ₩ ctl.

Markets by Telegraph.

Foreign Grain Review.

LONDON, August 8.—The Mark Lane *Express* says: English wheats were weaker; there was an average fall in the London market of 6d. The crops of wheat are barely good; beans and peas promise badly. Potatoes promise a yield of 6,500,000 tons; this is likely to somewhat limit the demand for wheat. Foreign wheats are heavy; American winter cargoes have fallen 6d. Corn is steady; barley quiet. Beans and peas firm. To-day English wheats were unimproved; foreign firmer; Californian, Indian and Australian, 6d better; oats 3d higher; beans, owing to spread of blight, rose 1s. There was a good sale of corn at 6d advance. Flour was steady and peas firm.

Eastern Canned Fruit Markets.

NEW YORK, August 7,—There is no abatement in the strong sentiment last noted. The best bid for four-size prunes was 8½c; offered at 9c. Peaches are firm at 12½c free on board; Georgia are in the market to a moderate extent at 11@12c.

Eastern Raisin Market.

NEW YORK, August 7.—The reported raisin combine on the coast has suddenly unsettled trading inclination here, and sellers seem unable to name useful quotations for new business. This check is unfortunate at this tender period of the market, especially as trade really started off with a good confident feeling. It is, of course, conceded that producers and packers should accomplish reasonable terms for supplies, particularly for a season which follows the last low-priced, glutted one; but some of our prominent sellers contend that dictation of prices for an article that is liable to sectional dissimilarity of quality is sure to create confusion. Raisins ought to be assured of a safe run this season, even with the Valencias in view, as there is no old stock in the way, and the Columbian Exposition will bring forward an extra flow of consumers that will help raisins as well as other semiluxurious goods. Nominal prices are $1.40@1.60 for loose boxes; $1.60@1.70 for layers, and $5.50 for bags, free on board. Spots are worth 5½@6c for bags. New Valencia are quoted at 7½c.

Miscellaneous.

NEW YORK, Aug 7.—Honey buyers seem willing to support strong prices; recent sales of light amber, 6½ cents.

Lima Beans—The spot demand has somewhat subsided; parcels to arrive are firm and wanted at $2.10 per bushel, delivered.

Hops—Good nursing hold the best state at 26c; but the light business is directed to the good quality of under grades. For choice Pacifics, 25c is the extreme.

Eastern Wool Markets.

NEW YORK, August 5.—The great bulk of new wool has gone East out of the hands of the growers. The supply now upon the Boston, New York and Philadelphia markets is said to be larger than it ever has been at this time of the year. Manufacturers have therefore considerable wool to choose from, and they are buying freely nearly all grades. Prices, while unchanged, are held firm. Fleeces have the call, being relatively cheaper than any other grade in the market. The sales of these wools are very large and some choice lots have sold at a slight advance over the market quotations. Clothing and Delaine wools are active and steady. A good demand is reported for unwashed Ohio and Michigan wool, but they are not as active as some weeks ago. Other wools which are more desirable and cheaper have taken attention. The buyers of California and Oregon wools are only moderately active. Considerable territory wool is being taken, especially Montana, which has come forward quite freely of late, and is in splendid condition. Pulled wools are quiet. Stocks are light and manufacturers are giving their attention almost exclusively to clipped wools. Skins are as high as they were a year ago. While wool has suffered considerably in the decline in price, this necessarily retards the movement from the pullers to the dealers. A good demand is reported for Australian wools. Prices hold steady and dealers are very firm in their demands. Most of the wool taken at the London sales has been received, yet stocks are not heavy. A little firmer feeling and better demand is noted for carpet wools.

NEW YORK, August 7.—Wool is active and there is some buoyancy in prices for choice unwashed; other styles are steady. Manufacturers are heavy owners to county bought wool and for a time can resist any material spot advances. The sales at New York were 412,000 pounds of domestic. Sales at Boston, 4,043,000 pounds and 862,000 foreign, largely Australian, which is somewhat firmer. At Philadelphia the current rate is supported.

General Remarks and Statistics.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending Aug. 9, '92, were as follows:

Flour, qr. sks	133,667	Bran, sks	10,521
Wheat, ctls	286,787	Buckwheat "	..
Barley, "	82, 87	Middlings "	2,479
Rye, "	1,873	Chicory, bbls	228
Oats, "	4 944	Hops, "	....
Corn, "	4,162	Wool, "	743
*Butter, "	626	Hay, ton	3,631
do bxs	646	Straw, "	160
do bbls	44	Wine, gals	163,700
do kegs	15	Brandy, "	5,120
do tubs	11	Raisins, bxs	....
do ½ bxs	...	Honey, cs	122
†Cheese, ctls	667	Peanuts, sks	....
do bxs	91	Walnuts "	....
Eggs, doz	24,590	Almonds "	....
do Eastern	21,090	Mustard "	....
Beans, sks	1 273	Flax "	613
Potatoes, sks	17,69	Popcorn "	....
Onions, "	3,917	Broom corn, bbls	....

*Overl'd, 126 ctls. † Overland, 225 ctls.

Exports by Sea from San Francisco from July 1 to Aug. 3.

	1892-93	1891-92
Wheat, ctls	578,262	1,441,484
Flour, bbls	82,979	143,484
Barley, ctls	83,168	104,799

Cereals.

On August 3d the Iowa State report came out, reducing the condition of oats to 60 per cent and corn to two-thirds of a crop. The production of corn in Iowa last year was 350,000,000 bushels, while this estimate would reduce it to 230,000,000 bushels. The crop of oats was 102,000,000, and this estimate would make it 61,000,000. In Nebraska the conditions are fully as bad, and the reports now indicate that the crop will be 125,000,000 bushels of corn, against 167,000,000 last year, and oats 36,000,000, against 48,000,000 last year. Thus, in two States the production of oats is reduced 53,000,000 bushels, and corn 159,000,000 bushels.

New York mail advices of August 1st state that Prime reports the prospects for the movement of new wheat are not good, as the rush of wheat from the fields is over. Winter wheat is now going into shock, to remain four to six weeks. He estimates 18,000,000 bushels less in Ohio, 12,000,000 bushels less in Indiana, 7,500,000 bushels less in Michigan and about 3,000,000 less in Missouri, making approximately 40,000,000 bushels less than in those States last year. He says that corn was apparently not much hurt by the weather the past week, while spring wheat was not in as good shape as two weeks ago. The yield of oats was very irregular.

Now that Congress adjourned without passing the antioption bill, the promised boom in wheat if it was defeated has not put in an appearance.

The local wheat market has held strong throughout the week, with a higher range of values paid in the country than is bid in this city. It is claimed by many that large operators get a rebate on all shipments made to this city or Port Costa. A decline in the outward charters on wheat has gone to wheat holders, while the decline in silver has caused heavier offerings on the European markets of Indian and Russian wheat at lower prices, which have lowered prices abroad. Farmers on this coast are not offering freely, being inclined to hold.

The receipts of barley have been heavy, but the market for the more choice grades has had a good support from shippers and maltsters. The consumption of both ground and rolled barley continues to enlarge. It is claimed that the increased feeding on this coast is fully 20 per cent greater than it was in 1891. The low rates of freight by rail to New York are greatly in favor of free shipments of choice gilt-edged from this port.

The supply of old oats is about exhausted, and as the receipts of new are light, the market shows increased strength owing to a good demand ruling for feed.

Corn continues to have good support, with, at the close, indications pointing to better prices for white and small yellow. The supply on this coast is light and well in hand, while the crop promises to be short. The Mexican demand is an important factor in the market.

Rye is lower and easy at the decline. It is said that exporters are quietly picking up the more choice grades.

In a leading editorial under the caption "Errors in Estimating Wheat Supplies" the New York *Commercial Bulletin* says: There were two countries from which Great Britain drew increased supplies last year besides America. One, India, was not counted upon to furnish nearly as much as it did the previous year; the other, Chili, was ignored in all estimates, presumably because in 1890-91 it had furnished so little, and the civil war was expected to knock off even that little in 1891-2. The wheat crop in India was reported short, and from the final Government returns just issued, it is seen that these reports were well founded, and yet the exports from India increased materially, while Chili furnished a considerable quantity of wheat. The following table shows the imports from these two sources, as well as from Russia and America:

	1890-1 Cwts.	1891-2. Cwts.
Russia	19,327,751	6,980,079
America (Atlantic & Pacific)	15,263,130	32,054,843
India	10,039,316	14,651,155
Chili	492,677	2,664,342

This table does not give the imports by the continental countries which also show a large gain, but more particularly from Russia.

The fact that India with a short crop should increase its exports over 40 per cent during the 12 months is remarkable in itself; but more remarkable when a comparison of prices shows that, although there was an average *advance* of four annas per maund (say $1.50 per quarter) in the price of wheat in the Indian home markets, there was an average *decline* of nearly $1.50 per quarter in the price of Indian wheat in London when compared with the preceding year.

This at once suggests that in calculating wheat supplies available for use in importing countries, something more must be taken into account than the probable yield of certain countries, difficult as this in itself is to ascertain. With India and other silver standard countries, for instance, currency conditions are so powerful that they put all ordinary calculations out of court, and have during the year just closed been sufficiently powerful to drain wheat for export from a rising market to a market of falling values, the anomaly being explained by the fall in exchange and the increased purchasing power of gold.

Feedstuff.

Both bran and middlings are lower, owing to heavy receipts and freer selling competition. Oregon is sending us considerable. The consumption is very large of all kinds of ground feed, particularly of ground and rolled barley.

Poor hay continues in oversupply, which necessitates more or less concessions to induce buying. This of necessity affects the better grades. The market ranges lower than it did at this time in last year. The feeding is not only heavy, but is steadily enlarging.

Dairy Produce.

The receipts of butter, cheese and egg at San Francisco in July were as follows:

Source—	Butter. Lbs.	Cheese. Lbs.	Eggs. Dozen.
California	1,126,800	478,200	119,901
Oregon	63,900	8,500	253,800
Eastern	147,000	302,400	510
Totals	1,137,700	789,100	374,211
January	502,200	476,900	420,345
February	622,550	313,500	200,745
March	1,188,700	574,200	358,756
April	1,793,050	802,900	590,068
May	1,713,100	715,900	536,170
June	1,811,200	634,100	603,735
Seven months	8,968,500	4,306,600	3,134,050

Butter has been irregular. An effort is being made by two or more dealers to force creamery to higher figures, with the usual result—that of sending the retail trade largely to choice or gilt-edged dairy in rolls. The supply of dairy is in excess of requirements. Receipts of butter from the northern coast are very heavy.

Cheese has held strong for choice to gilt-edged new mild, barely steady for good, and weak for poor to fair.

Eggs have been irregular. Some dealers claim that eggs extra in size, of white color and strictly fresh, sent in from nearby points, sell at a slight advance on outside quotations. The supply is fair to middling. It is claimed that free shipmints are on the way from the East. A large quantity of Eastern is retailed in this city as California ranch.

Vegetables.

Garden stuff has moved off fairly well throughout the week, but at times concessions were in order to induce free buying. Tomatoes held up well to yesterday, when lower prices ruled, with still lower prices to-day.

Onions held to steady prices throughout the week. Choice, good keepers are the only kind which have ready sales.

There has been a better shipping demand. The market has cleaned up fairly well each day, but of course concessions had, at times, to be offered so as to induce free purchasing. For potatoes grown on sandy, loamy soil and choice in every respect, higher prices have been secured than we quote for outside prices, our quotations being for fair to good.

Fruit.

Strawberries and blackberries have ruled weak, but raspberries have held strong at an advance. Apricots are in light receipt. Black figs continue scarce and high. Peaches have a wide range. They have held strong up to to-day, when there was an easier feeling, owing to a lessened call from canners. Pears, which have been more or less easy, were in good demand to-day for the more choice for canning, with $1.25 quickly paid. Plums were in better demand to-day from canners. Canners in this city, and, as for that, throughout the State, are running to full capacity. The grapes that are coming in are poor and more or less sour. Melons are lower, owing to a poor demand and few receipts, cool weather being against consumption.

New-crop raisins are having a free inquiry. It looks very much as if all the better grades will be placed early this year.

New-crop dried grapes are wanted at around our quotations.

A strong effort is being made to get dried fruit down, but so far as we can learn, it has not been a success. The market has strong support in short crops of fruits at the East and abroad, a much less quantity to be cured, owing to more marketed fresh, and the stock of 1891 cleaned up. Our quotations cover the range of prices at which producers or driers in the country can sell at in this market.

Live Stock.

The market for bullocks and mutton sheep has held barely steady, with concessions made on consignments a little off. Hogs have held up, as have dairy calves.

Miscellaneous.

Poultry came in slowly, which allowed the market to clean up. Toward the last there have been freer receipts, but prices kept up. A carload of Eastern came. They were sold to arrive.

Buyers are inquiring more for hops, but their views are below those of growers.

Wool is essentially unchanged. The market has ruled weak and unsatisfactory, owing to poor assortments and few buyers. The fall wools that have come in so far are said to be poor.

Honey is strong and in demand for shipping.

Beans have held firm throughout the week. Mexico is again in the market for colored. The low freights by rail to New York favor sellers.

Hog product has made another advance. The market closed strong.

New-crop mustard seed is offering more freely.

From reliable advices up to Aug. 10, the following summary tonnage movement is compiled:

	On the way 1892.	On the way 1891.	In port 1892.	In port 1891.
San Francisco	266,778	363,339	*176,734	81,610
San Diego	19,741	28,124	8,115	.....
San Pedro	6,602	4,635	1,338	} 12,513
Oregon	50,094	47,367	22,305	
Puget Sound	24,326	33,828	.....	
Totals	367,541	476,853	208,492	94,123

*Engaged for wheat, 1892, 67,079; 1891, 71,549

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, Aug. 3, 1892.

Limes, Mex	2 00 @ 3 50	Fruit in bulk to canners:	
Do Cal	— @ —	Apricots, ₩ lb	1¾@3;
Lemons, box	1 50 @ 3 50	Pears,	1¼@2;
Do Sicily	— @ —	Plums, white,	2@3c;
Strawberries, per chest—		Peaches, freestone,	1¾@2½;
Longworth	6 50 @ 8 50	clings,	2@3. Extra choice
Sharpless	4 50 @ 6 00	fruit for special purposes sells	
Raspberries, ch.	7 00 @10 00	at a slight advance on outside	
Peaches, box	35 @ 75	quotations.	
Bl'kberries ₩ ch	3 50 @ 4 50	Beets, sk	— @ 75
Figs, blk box	1 00 @ 1 25	Carrots, sk	40 @ —
Do White do	— @ —	Okra, dry, lb	15 @ —
Apples, Red Astrachan	75 @ 1 10	Do green	6 @ 10
Do Gravenstein	1 00 @ 1 50	Parsnips, ctl	— @ 1 25
Crabapples	50 @ 75	Peppers, dry, lb	10 @ —
Cant loupes, pr crate	1 00 @ 2 50	Do grn Chili, bx	40 @ 50
Melons, pr 100	5 00 @10 00	Do do Bells	50 @ 75
Grapes, pr bx—		Turnips, ctl	75 @ —
Do White	50 @ 75	Cabbage, 100 lbs	60 @ 90
Do Black	60 @ 1 00	Garlic, lb	1¼@ 3
Do Muscats	60 @ 1 00	Squash, Sum, bx	15 @ 25
Prunes, Tragedy	50 @ 90	Tomatoes,	— @ —
Do German	50 @ 75	Do River lrg bx	75 @ 1 25
Plums, ₩ box	40 @ 75	String Beans	2 @ 4
Pears	50 @ 1 50	Cucumbers, box	15 @ 30
Do Bartlett	75 @ 1 25	Mushrooms	30 @ 50
Apricots, pr box	50 @ 75	Egg Plant, bx	50 @ 75
		Green Corn, sk	— @
		Do swt Bay prdz	10 @ 15
		Do Berkely box	40 @ 65

Grain and Wool Bags.

Calcutta, spot	7	@	7½
Wool Bags	36	@	38

Continued on next page.

General Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, Aug. 10, 1892

BEANS AND PEAS.	Common ... ... 1 30 @ —
Bayo, ctl..... 2 75 @ 3 00	Sonora..... 1 33¾@ 1 45
Butter..... 2 50 @ 3 00	**HOPS.**
Pea..... 2 30 @ 2 60	1892 Bid..... 16 @ 18
Red..... 2 65 @ 2 85	**FLOUR.**
Pink..... 2 35 @ 2 50	Extra, City Mills 4 40 @ 4 65
Small White .. 2 35 @ 2 50	Do Country Mills 4 30 @ 4 65
Large White.... 2 20 @ —	Superfine..... 2 75 @ 3 10
Lima.... ... 3 00 @ 3 20	**NUTS—JOBBING.**
Fld Peas, blk eye 1 50 @ 1 70	Walnuts, Cal. ℔ 6 @ —
Do green..... 1 50 @ 2 75	Do Choice..... 8 @ —
Do Nlles..... 1 30 @ 1 40	Do paper shell.. 9 @ —
Split..... 4 50 @ 5 00	Almonds, sft shl. 11 @ —
BUTTER.	Paper shell..... 14 @ —
Cal. Poor to fair, ℔ 15 @ —	Hard Shell..... 6 @ 7½
Do good to choice 19 @ —	Brazil, ... 9 @ 10
Do Giltedged... — @ 25	Pecans small... 11 @ 13
Do Creamery rolls — @ 25	Do large..... 14½@ 16
Do do Giltedge.. — @ 27	Peanuts..... 3½@ 4½
Eastern..... 16 @ 17	Filberts..... 11 @ —
CHEESE	Hickory..... 7 @ 8
Cal. choice cream 9 @ —	Chestnuts..... 11½@ 16
Do fair to good 7½@ —	**ONIONS.**
Do gilt edged.. — @ 10	Silverskin ..... 40 @ 50
Do skim..... 5 @ 6½	**POTATOES.**
Young America — @ 11	Early Rose, ctl. 45 @ 65
EGGS.	Peerless..... 50 @ 75
Cal. "as is," doz. 16 @ 18	Garnet Chilies . 60 @ 75
Do shaky..... 12½@ 14	Burbank Seedlings 55 @ 1 00
Do candled..... 19 @ 23	Extra choice sell for more money.
Do choice..... 23 @ 25	**POULTRY.**
Do fresh laid... 26 @ 29	Hens, doz..... 6 50 @ 8 00
Do do selected.. — @ 30	Roosters, old.... 6 00 @ 7 50
Eastern "as is". 14 @ 16	Do young..... 5 00 @ 8 00
Do candled..... 17 @ 18	Broilers, small.. 2 50 @ 3 75
Do selected..... 19 @ 22	Do large..... 3 75 @ 4 50
Outside prices for selected large eggs and inside prices for mixed sizes—small eggs and hard to sell.	Fryers..... 4 50 @ 5 50
	Ducks..... 4 00 @ 4 75
	do, large ..... 5 00 @ 5 50
	do, extra large 6 00 @ —
FEED	Geese, pair..... 1 25 @ 2 00
Bran, ton..... 16 50 @17 50	Goslings ..... — @ —
Feedmeal..... 27 00 @30 00	Turkeys, Gobb'r. 19 @ 21
Gr'd Barley.... 20 50 @22 00	Turkeys, Hens.. 16 @ 18
Middlings ..... 20 00 @21 00	All kinds of Poultry if poor or small, sell at less than quoted; if large and in good condition, they sell for more than quoted.
Oil Cake Meal.. — @25 00	
Manhattan Food ℔ cwt. 7 50	
HAY.	
Wheat, per ton. 8 00 @ —	
Do choice..... — @12 50	
Wheat and Oats 8 50 @11 00	Manhattan Egg Food ℔ cwt...11 50 @ —
Wild Oats..... 8 00 @11 00	**PROVISIONS**
Cultivated do.. 7 00 @10 00	Cal. Bacon, he'vy, ℔ 11 @ 11½
Barley..... 6 00 @ 9 00	Medium ..... 12 @ 13
Alfalfa..... 7 00 @ 9 00	Light..... 13½ @ 14
Straw, bale ..... 40 @ 50	Lard..... 8 @ 11
GRAIN, ETC	Cal. Sm'k'd Beef 11½@ —
Barley, feed, ctl. 88½@ 92½	Hams, Cal salt'd 12½ @ 14
Do Choice..... 93½@ —	do Eastern... 15 @ 16
Do Brewing .... 1 00 @ —	**SEEDS.**
Do do Choice... 1 05 @ —	Alfalfa..... — @ —
Do do Giltedge.. 1 07½@ —	Clover, Red.... 14 @ 15
Do Chevalier.... — @ —	White..... 20 @ —
Do do Giltedge.. — @ —	Flaxseed..... 2 00 @ 2 25
Buckwheat..... — @ —	Hemp..... 3¾@ 4
Corn, White.... 1 37½@—	Mustard, yellow 3½ @ 4
Yellow, large... 1 30 @—	do Brown..... 2½ @ —
Do small..... 1 35 @—	**WOOL.**
Oats, milling.... 1 52½ @ —	SPRING, 1892
Feed, Choice.... 1 46½ @ —	Humb't & Men'cino 17 @ 21
Do good..... 1 42½@ —	Sac'to valley.... 16 @ —
Do fair..... 1 37½@ —	S Joaquin valley 11 @ 16
Surprise..... 1 55 @ —	Cala's & F'th'l. 16 @ 21
Black Cal ..... — @ —	Oregon Eastern. 12½@ 19
Do Oregon..... — @ —	do valley..... 18 @ 23
Gray..... — @ —	So'n Coast, def.. 10 @ 12
Rye..... 1 30 @ —	Nevada (State). 15 @ 19
Wheat, milling.	**HONEY.—1892 CROP.**
Gilt edged.... 1 48½@ —	WhiteComb, 2-lb 9 @ 12
Do Choice..... 1 46½@ —	do do 1-lb frame 11 @ 14
Do fair to good.. 1 42½@ —	White extract'd 6½@ 7½
Shipping, cho'ce 1 40 @ —	Amber do 5 @ 6½
Do good..... 1 37½@ —	Beeswax, lb.... 25 @ 28
Do fair..... 1 35 @ —	

Dried Fruits.

The quotations given below are for average prices received by commission merchants for consignments by growers. Something very fancy fetches an advance on the highest quotations while poor sells slightly below the lowest quotations. Prices, unless otherwise specified, are for fruit in sacks; add for 50-lb. boxes ½c per lb., and for 25-lb boxes, ¾c to 1c per lb.

APPLES—1892.	Do do fancy.....13 @—
Sun-dried, ¼'s, com'on 2½@ 3½	Sun-dr, pl'd, prime, bl..— @—
Do do prime..... 3½@ 4	Do do choice..... — @—
Do do choice..... 4 @ 4½	Do do fancy..... — @—
Do sliced, common... 3½@ 4	Evap, peeled, in boxes, choice..... — @17½
Do do prime..... 4 @ 4½	Do do fancy ..... — @20
Do do choice..... 4½@ 5½	**PEARS—1892.**
Evap. bleached, ring. 50-lb boxes..... 6½@ 7	Sun-dried, quarters...— @ 3
APRICOTS—1892.	Do sliced .... 4 @ 5
Sun-dried, unbl. com. 4 @ 5	Evap, sliced, in boxes. 7 @ 8
Do do prime..... 6 @ 7	Do ring do..... 9 @10
Do do choice ..... 8 @ 9	**PLUMS—1892.**
Do bleached, prime... 11@—	Pitted, sun-dried..... 7 @ 8
Do do choice..... 12@—	Do evap. boxes, choice.— @—
Do do fancy..... 13@—	Do do do fancy..... — @—
Evap. choice, in boxes. 13½@—	Unpitted..... — @—
Do fancy, do..... 14 @—	**PRUNES—1892.**
FIGS—1892.	Cal. French, ungraded 7½@ 8
Sun-dried, black..... 4½@ 5	Do graded, 60 to 100.. 8½@ 9
Do white..... — @—	Do do 40 to 60.....11 @12
Do do washed..... — @	Fancy sell for more money.
Do do fancy..... — @—	**RAISINS—1892.**
Do do pressed..... — @—	London Layers, cluster, ℔ bx....1 90 @2 00
Smyrna boxes..... — @—	Do choicest do....1 60 @1 70
Do sacks..... — @—	Do prime, ℔ bx....1 40 @1 45
GRAPES—1892.	Loose Muscatels, common, ℔ bx.. — @ —
Sun-dried, stemless... 3½@	Do choice, do.....1 25 @1 30
Do unstemmed..... 1½@ 2	Unstem'd Muscatels, in sacks, ℔ lb 4 @ 5½
NECTARINES—1892.	Stemmed do do.... — @ —
Red, sun-dried..... — @—	Seedless do do..... — @ —
Do Evap., in boxes... — @—	Do do ℔ 20-lb bx... — @ —
White, sun-dried..... — @—	Sultanas, unbl, bxs — @ —
Do evaporated..... — @—	Do bleached, in bxs — @ —
PEACHES—1892.	Halves, quarters and eighths 25, 50 and 75 cents higher respectively than whole boxes
Sun-dried, unpeeled, common, bleached.. 8 @—	
Do do prime, do.....10 @—	
Do do choice, do.....11½@—	
Do do fancy.....12 @—	
Evap, unpe'l'd, choice. 12½@—	

Live Stock.

BEEF.	**MUTTON.**
Stall fed.....5½@ —	Wethers..... 7 @—
Grass fed, extra.....5½@ —	Ewes..... 6½@—
First quality .....4½ @ —	Do Spring..... 8 @—
Second quality.....4 @—	**HOGS.**
Third quality.....3½@ —	Light, ℔ lb, cents..... 5¾ @—
Bulls and thin Cows...3 @—	Medium..... 5¾ @—
VEAL.	Heavy..... 5 @ —
Range, heavy.....4 @—	Soft..... 4¾@—
Do light.....5 @—	Feeders ..... 3¾@—
Dairy.....6 @—	Stock Hogs..... 3½@—

Twine and Baling Rope.

BALE ROPE.	**TWINE.**
Sisal, 3 yarns..... 9	Pure Manila Hop, in balls, tarred..... 11½
Do, 2 yarns, light..... 9½	Do, Grape-Vine, in balls or coils.....12
Duplex, 3 yarns..... 9	Do, Spring..... 16
Manila, 3 yarns, heavy ...10½	Duplex Hop, in balls, tar'd 9½
Pure Manila, 3 and 4 yarns 12	Do, Grape-Vine, in balls or coils.....10½
Do, 2 yarns, light.....12½	

Wine.

Red and White Wine from bay counties, vintage of 1891, per gal..... 10 @ 15

Auction Sales of California Fruits.

At New York.

Aug. 3.—Three carloads: Washington Plums, $2.85 @2.95; Purple Duane Plums, $1.85; Egg Plums, $2 90; Fontainebleau Grapes, $1.30@1.55; Early Crawford Peaches, $1.05@1.40; Strawberry Peaches, $1.05@1.15; Centennial Peaches, $1.55; Cling Peaches, $2; Foster Peaches, $1.15@1.20; Tuscan Cling Peaches, $1.30; French Prunes, $1 60; Bartlett Pears, $2.50@2 80.

Aug 3.—Three carloads: Crawford Peaches, $1.15 @1 75; Hale's Early Peaches, $1; Cling Peaches, $1@ 1 65; Peaches, 80@90c; Foster Peaches, 90c@$1.55; Washington Plums, $2.87; Egg Plums, $3; Columbia Plums, $1.80; Kelsey Japan Plums, $3@7.50; Bradshaw Plums, $1.85@3 05; White Nectarines, $1.15; Yellow Nectarines, 90c; Purple Duane Plums, $1.75@2.87; McLaughlin Plums, $1.45; Bulgarian Prunes, $1.45; German Prunes, $3; Bartlett Pears, $2 55@2.90; Sweetwater Grapes, $1.70.

Aug. 5.—Four carloads: Comedy Plums, $2.65; Washington Plums, $2.25; Yellow Egg Plums, $3; French Prunes, $1.65; Fontainebleau Grapes, $1.50@ 1.55; Early Crawford Peaches, $1@1.30; Tustin Cling Peaches, $1.25; Strawberry Peaches, 95c@$1; Foster Peaches, $1.20; Susquehanna Peaches, $1.25; Red Nectarines, $1 25; Bartlett Pears. $2.60@2.85; Congress Pears, $2.65.

Aug. 4.—Four carloads: St. John Peaches, $1.30; Crawford Peaches, $1.10@1.55; Decker Peaches, $1 15 @1.30; Cling Peaches, $1.25@2.85; Foster Peaches, $1.25@1.50; Strawberry Peaches, $1.40; Bartlett Pears, $2.05@3.10; Egg Plums, $3.10@3 80; Purple Duane Plums, $1 85@2 25; Columbia Plums, $2 35; Bradshaw Plums, $2.75; Quackenboss Plums, $2.75; Plums, $2.15 @3; German Prunes, $2.70; Japan Plums, $3 65@3 85; Nectarines, $1.15@1.35; Fontainebleau Grapes, $1.40@ 1.60.

Aug. 5.—Six carloads: Crawford Peaches, $1.15@ 1.50; Foster Peaches, 90c@$1 25; Red Peaches, $1.43; Clings, $1.25; Decker Peaches, $1@1.65; Bartlett Pears, $2 35@3..0; Beurre Hardy Pears, $2.80; Bradshaw Plums, $2.35@3.20; Peach Plums, $1.85@3.70; Egg Plums, $2 22@3 15; Purple Duane Plums, $2 35; Plums, $1.90@2.65; Barry Prunes, $2.40; German Prunes, $2.25 @3.15; Prunes, $1 75; Nectarines, $1.85

Aug. 5.—One carload Early Crawford Peaches at an average of $1.35 per box.

Aug. 6.—Five carloads: Decker Peaches, $1 45; Crawford Peaches, $1 05@1.70; Foster Peaches, $1.10 @1.65; Cling Peaches $1.19; Red Peaches, $1.30@1.40; Bartlett Pears, $2.45@3; half boxes Bartletts, $1.40; Peach Plums, $2.37@2 75; Bradshaw Plums, $2.10@3; P. D. Plums, $1.50@2.12; Grapes, $1.60@2.37; Tuscan Cling Peaches, $1.20@1 30; German Prunes, $2.20@ 2.65; Red Nectarines, $1.10@1.55; White Nectarines, 80c; Gros Prunes, $3@4; Barry Prunes, $2.40; Plums, $2.42@2.50; Egg Plums, $2.50@2.75; Quackenboss Plums, $2.60.

At Chicago.

Aug. 3.—Seven carloads: Bartlett Pears, overripe, $1.80@2 55; Howell Pears, $1 60; Crawford Peaches, $1.10@1.20; Grapes, $1.15@1.70; Plums, $1.20@2.05; German Prunes, $1.20@2.10; Peaches, 70c@$1.30; Clapp's Favorite Pears, $2.25; Nectarines, 70c@$2.10; Japan Plums, $2.10@2.60; Purple Duane Plums, $1.30 @2.10; Egg Plums, $1.45; Bulgarian Prunes, $1.35; Columbia Plums, $1.25@1.60; Prunes, $1.20@1.85; Bradshaw Plums, $2.10.

Aug. 3.—Seven carloads: Bartlett Pears, $2.25@2.45; Clapp's Favorite Pears, $1.95; Crawford Peaches, $1@ 1.30; Centennial Peaches, $1.15@1.25; Susquehanna Peaches, $1.15; Tustin Peaches, $1.10; Strawberry Peaches, 80@90c; Stephen's Cling, $1.40; German Prunes, $1 60@1.75; Fontainebleau Grapes, $1 35@1 55; Peach Plums, $1.35@1.45; Purple Duane Plums, $1.35 @1.45; Bradshaw Plums, $1.20@1.40; Columbia Plums, $1.45@1.50. Some fruit in an unsound condition sold for less.

Aug. 4.—Five carloads: Bartlett Pears averaged $2.35 ℔ box; Early Crawford Peaches, 90c@$1.40; Centennial Peaches, $1.40; Golden Cling Peaches, $1.25; Strawberry Peaches, 90@95c; Susquehanna Peaches, $1.25; Red Nectarines, $1.20; Fontainebleau Grapes, $2.62; Barry Prunes, $2.30 German Prunes, $2 10@2.30; French Prunes, $1.90; Gros Prunes, $1.35@2.12; Plums $1.65@2 30; Nectarines, $1.55@1 85; boxes, 95c; P. D. Plums, $1.40@2.50; half crates Muscats, $1.50; Thompson Seedless Grapes, $2.05.

At Boston.

Aug. 3.—Two carloads: Crawford Peaches, $1.36; Bartlett Pears, $3 26; German Prunes, $3.50.

Aug. 3.—One carload: Bartlett Pears averaged $3.65; Early Crawford Peaches, $1.25@1.75.

Aug. 6.—Two carloads: Bartlett Pears averaged $3.50; Bradshaw Plums, $4; Magnum Bonum Plums, $1.10; Peach Plums, $3.60; Columbia Plums, $3.60; Jefferson Plums, $3.25, Washington Plums, $3.10@3.40; P. D. Plums, $2.10@3; German Prunes, $2.50@2.75; Italian Prunes, $2; French Prunes, $2.35; Bohemian Prunes, $1.75@2 25; Early Crawford Peaches, $1.10@ 1.65; Strawberry Peaches, $1.10; Susquehanna Peaches, $1; Red Nectarines, $1.10.

Aug. 8.—Two carloads: Washington Plums, $3 60; French Prunes, $2.80; Bartlett Pears, $3.15@3.50; Crawford Peaches, $1.25@1.40; White Freestone Peaches, $1.50, Stephens' Cling Peaches, $1.45.

Aug. 8 —Two carloads: Gross sales $3222. Crawford Peaches, $1.33@1.40; St. John Peaches, $1.36; Decker Peaches, $1.44; Foster Peaches, $1.40; Washington Plums, $3.37; Egg Plums, $3.25; Bartlett Pears, $3.32.

At Omaha.

Aug. 8.—One carload: Peaches, $1 20@1.40.

At Minneapolis.

Aug. 3.—Two carloads: Peaches, 55c@$1.10; Pears, $2.30@2.45.

Aug. 4.—Two carloads: Bartlett Pears, $2.25@2.40; Plums, $2.

Aug. 5.—Two carloads: Peaches, $1.15@1.30; Pears, $2.10@2.40; Plums, $1.90@2.40.

Aug. 8.—One carload: Peaches $1.40@1.55; Pears, $2.60@2.85; Plums, $2.30.

Auction Sales at San Francisco.

August 4.—1900 baskets Crawford Peaches, good quality, 45@67½c. inferior, 35@40c ℔ basket: 76 boxes wrapped Peaches, 70c ℔ box; 250 baskets Cling Peaches, 60@75c ℔ basket; 30 baskets Nectarines, 30@ 32½c; 50 baskets Plums, 35@50c; 75 baskets Prunes, 62½@65c; 25 boxes Nutmeg Melons, 75c@$1; 150 boxes Pears, No. 1, $1@1.10; 300 boxes, No. 2 do, 5 @80c.

August 5 —1500 baskets Crawford Peaches, good quality, 50@70c, inferior, 32½@45c ℔ basket; 400 baskets Clings, 60@77½c; 50 boxes Nutmeg Melons, 75c@ $1.35; 25 crates Cantaloupes, $2.50@3.50; 200 baskets Plums, 32½@c50c: 75 baskets Prunes, 57½c@$1.05; 60 baskets Nectarines, 25@40c ℔ basket.

August 6.—1500 baskets Peaches, good quality, 45@ 77½c, inferior, 25@40c; 30 crates Cantaloupes, $2@3; 20 crates Watermelons, $1; 40 boxes, Nutmeg Melons, 75c@$1; 75 baskets Plums, 40c.

August 8.—1500 baskets Peaches, 30@77½; 50 crates Cantaloupes, $1.50@2.50; 300 boxes Bartlett Pears, No. 1, $1@1.10; 500 boxes do, No.2; 65@90c; 250 baskets Plums and Prunes, 30@75c.

Aug. 9.—1600 baskets peaches, good quality, 50@75c ℔ basket; inferior, 27½@45c ℔ basket: 150 baskets plums, 50@85c ℔ basket; 150 boxes pears, No. 1, $1@ 1.10: 30 baskets crabapples, 75c; 50 crates cantaloupes, $2@2 25; 40 boxes, nutmeg melons, 75c@$1.15; 15 crates watermelons, 70c

Aug. 10.—1207 baskets peaches, 25@70c; 58 baskets Plums, 32½@70c; 5 boxes nectarines, 50c; 4 boxes pears, 45c; 6 crates cantaloupes, $2.

A Large Agricultural Implement House Increasing Its Business.

The well-known firm of Frank Bros., dealers in agricultural implements, this city, has recently absorbed the Pacific coast business of P. P. Mast & Co., whose former agency, at 31 Market street, has been discontinued. With a healthy business record of nearly 20 years among the farmers of California, Oregon and Washington, and an intimate knowledge of their requirements in these lines, this firm is now better equipped than ever to meet all the demands of trade. The business will be conducted, as usual, at the old headquarters, 33 and 35 Main street. The accompanying letter gives some idea of the items covered by the new agency:

"TO OUR PATRONS:—We are now the agents for P. P. Mast & Co.'s well-known line of Implements, Wind Mills and Pumps. This line includes the Buckeye Low Down Drills, Buckeye Shoe Drills, Buckeye Cultivators, Buckeye Broadcast Seeders, Buckeye Hay Rakes, Buckeye Spring-Tooth Harrows and Seeders, Iron Turbine Wind Mills, New Columbia Steel Mills, Buckeye Force and Lift Pumps, Buckeye Cider Mills, Lawn Mowers, Iron Fencing, Etc. Our trade, generally, is so well advised of the merit of these goods, and the large demand for them, that we hope to hear from you at an early date. Yours truly, FRANK BROS."

LIMITS OF TREE-VEGETATION. — The latest researches of the Finnish expedition to the Kola peninsula will modify, as we learn from *Nature*, the position of the line which now represents on our maps the northern limits of tree-vegetation in that part of Northern Europe. The northern limit of coniferous forests follows a sinuous line which crosses the peninsula from the northwest to the southeast. But it now appears that birch penetrates much farther north than the coniferous trees, and that birch forests or groves may be considered as constituting a separate outer zone which fringes the former. The northern limits of birch groves are represented by a very broken line, as they penetrate most of the valleys almost down to the seashore; so that the tundras not only occupy but a narrow space along the seacoast, but they are also broken by the extensions of birch forests down the valleys. As to the tundras which have been shown of late in the interior of the peninsula, and have been marked on Drude's map in Berghaus' atlas, the Finnish explorers remark that the treeless spaces on the Ponoi are not tundras but extensive marshes, the vegetation of which belongs to the forest region. The Arctic or tundra vegetation is thus limited to a narrow and irregular zone along the coast, and to a few elevated points in the interior of the peninsula, like the Khibin tundras, or the Luyavrurt (1120 metres high). The conifer forests, whose northern limit offers much fewer sinuosities than the northern limit of birch-growths, consist of fir and Scotch fir; sometimes the former and sometimes the latter extending up to the northern border of the coniferous zone.

Agricultural Fairs.

State Fairs.

STATE. PLACE AND SEC'Y.	DATE.
Oregon, Salem, J. T. Gregg	Sept. 12-17
California, Sacramento, Edwin F. Smith	Sept. 5-17
Washington, Spokane	Sept. 19-24
Nevada, Reno, C. H. Stoddard	.....
Western Washington Industrial Exposition, Tacoma,	.....

District Fairs.

NO. PLACE AND SEC'Y.	DATE.
1—Oakland	Aug. 8-13
2—Stockton	Sept. 19-Oct. 1
3—Chico, J. D. Sproul	Aug. 23 27
4—Petaluma, Dr. Thos. Macleay,	Aug. 29-Sept. 3
5—Santa Clara, George H. Bragg	Sept 26-Oct 5
6—Los Angeles	.....
7—Salinas City, J. J. Kelley	.....
8—Placerville, Thos. Fraser	Aug. 23-27
9—Rohnerville	.....
10—Yreka, C. S. Smith	Oct. 5-8
11—Sierraville, Fred Blinman	Oct, 3-7
12—Lakeport, H. A. McCraney	Sept. 27, Oct. 1
13—Marysville, G. R. Eckart	Aug. 28-Sept. 3
14—Santa Cruz, Oscar L. Gordon	Oct. 10-15
15—Bakersfield. J. J. Kelly	.....
16—San Luis Obispo, J. H. Barrett,	Sept 27-Oct 1
17—*....., I. J. Rolfe	Aug. 23-28
18—Independence, C. W. Craig	Sept. 27-30
19—Santa Barbara, H. B. Barstow	Aug. 23-27
20—Auburn, F. D. Adams	Aug. 30-Sept. 3
21—Fresno, J. M. Reuck	Sept. 26-Oct. 1
22—Escondido, G. M. Dannals	Sept. 21-24
23—Concord, F. L. Loucks	Aug. 29-Sept 3
25—Napa, D. L. Hackett	Aug. 22-27
26—Ione, C. T. La Grave	Sept. 27-30
27—Redding, H. R. Hodson	.....
28—San Bernardino	.....
30—Red Bluff, M. R. Hook	Aug. 16-20
31—Hueneme, T. H. Merry	Aug. 30-Sept. 3
32—Santa Ana, W. A. Beckett	Oct 3-7
33—Hollister, A. D. Shaw	Oct. 11-15
34—Susanville, C. E. Emerson	Sept. 3-7
35—Merced	.....
36—Vallejo	Aug. 27-30
37—Lompoc, W. I. Nichols	Sept. 20-23
38—Modesto	Sept. 28-Oct. 1
—Glenn Co. Willows, W. V. Freeman	Aug. 9-13

*Stock exhibit and races will be at Glenbrook, and pavilion exhibit at Nevada City.

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R. G. BAILEY—San Francisco.
GEO. WILSON—Sacramento, Cal.
SAMUEL B. CLIFF—Creston, Cal.
MRS. BRUCE B. LEE—Tehama Co.
E. H. SCHAEFFLE—Calaveras and Tuolumne Co's.
R. G HUSTON—Montana.
CHAS. E. TOWNSEND—Sierra and Nevada Cos.
A. C. GODFREY—Oregon.
W. H. MURRAY—California.
E. B. PORTER—Santa Cruz Co.

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SECOND EDITION.

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— AND —

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PRACTICAL, EXPLICIT, COMPREHENSIVE.

Embodying the Experience and Methods of Hundreds of Successful Growers, and Constituting a Trustworthy Guide by which the Inexperienced may Successfully Produce the Fruits for which California is Famous.

BY EDWARD J. WICKSON, A. M.

Assoc. Prof. Agriculture, Horticulture and Entomology, University of California; Horticultural Editor PACIFIC RURAL PRESS, San Francisco; Secretary California State Horticultural Society; President California State Floral Society; President San Francisco Microscopical Society.

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SAN FRANCISCO, CAL.

Fills the Bill.

Farmers perhaps more than any other class suffer from the charges and dishonesty of middlemen. If the farmer could sell his produce at best market rates and have honest returns made, his profits would be greatly increased. An agency or organization that would carefully supply the farmer with information in advance of his shipment, look out for his produce when it arrives, report to him as to the honesty of firms he may think of dealing with and do his purchasing at the best market rates, would be of almost incalculable benefit. To fill this want, lately a number of reputable San Francisco business men have organized a Farmers' Protective Bureau, with offices in the *Chronicle* building, San Francisco.

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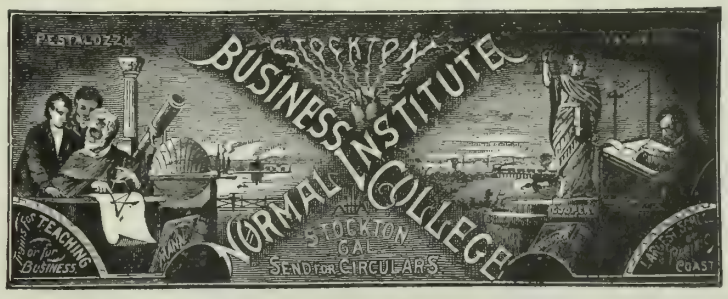

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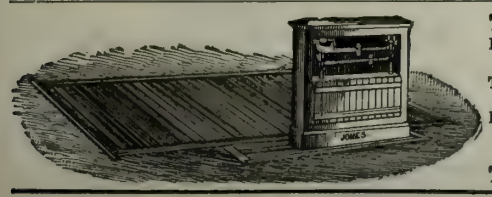

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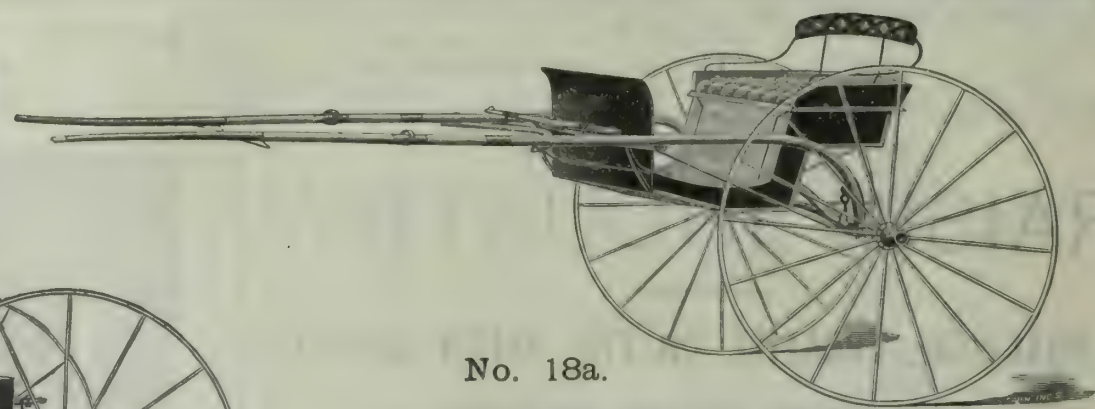

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PACIFIC RURAL PRESS

Vol. XLIV. No. 8. SAN FRANCISCO, SATURDAY, AUGUST 20, 1892. THE DEWEY PUBLISHING CO Office, 220 Market St.

A Disease of Almond Trees in California.

Upon another page we publish a very interesting account of almond-growing by a writer resident in the lower part of Alameda county. Judging from his own experience, the writer pronounces the almond tree free from parasitic insects or fungus. This is unfortunately not true in the experience of others, although it is true that the almond is free from many troubles which beset other trees. We do not desire to promote the impression that the almond can be given a clean bill of health. There is nothing gained in the long run by such impression.

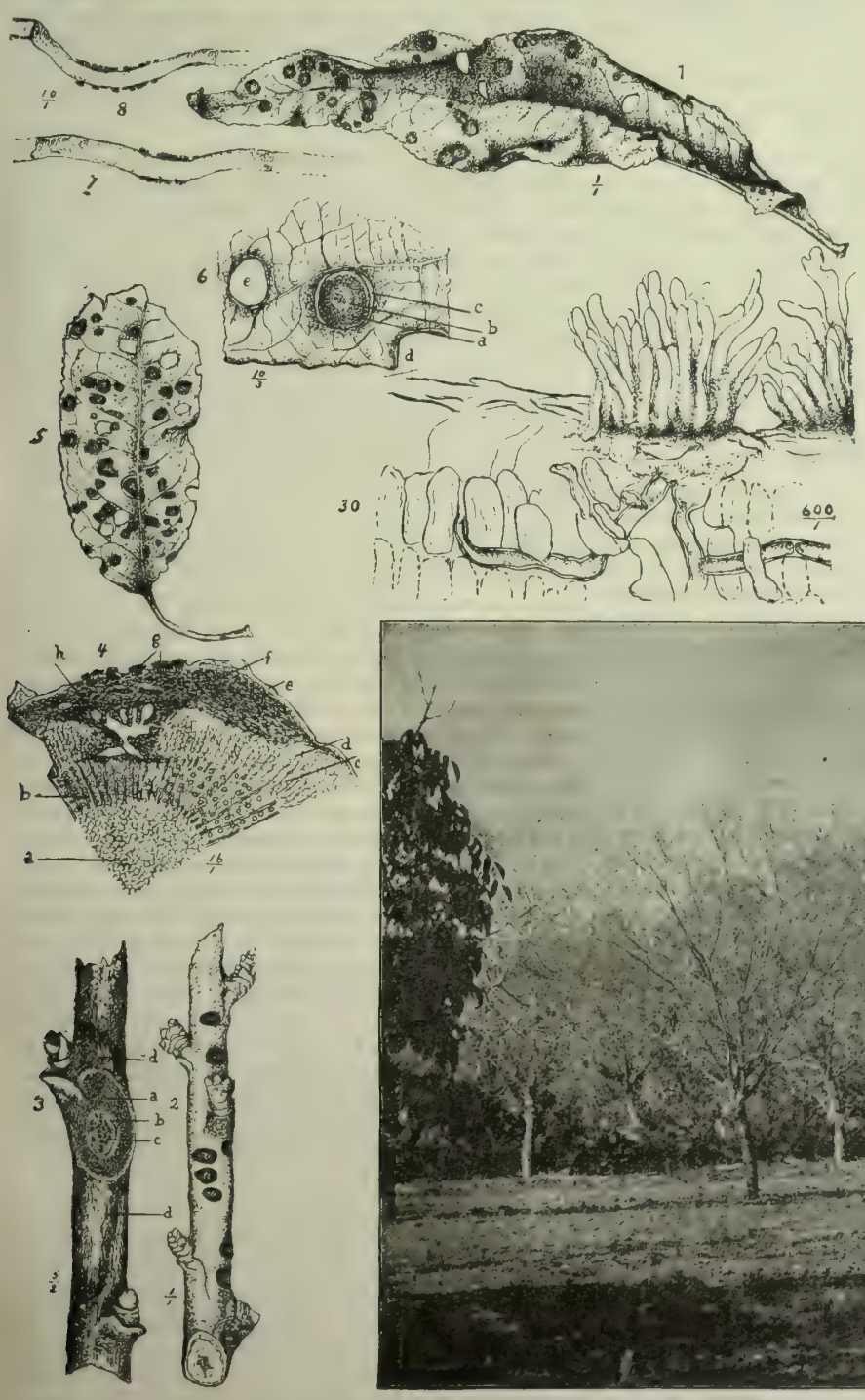
It has been recently noticed that a somewhat serious leaf disease has been observed on the almond in thisState. We call it a leaf disease for upon the leaves its most noticeable effects are produced, although in this, as in many other fungi, injury is visited also upon the woody tissue of the twigs and branches. The trouble is analogous to the shot-hole fungus of the apricot, plum and cherry and other leaf-riddling fungi on other plants. The nature of the disease and its ill-effects are represented in the engravings upon this page.

During the present yeor the *Journal of Mycology*, which is the official journal of the Division of Vegetable Pathology of the U. S. Department of Agriculture, has published a very interesting paper on "A Disease of Almond Trees" by Newton B. Pierce. Mr. Pierce, many of our readers will remember, has been engaged in this State for some time in special investigation of the mysterious vine disease in southern California. In pursuit of this investigation, he came upon this disease of the almond to which we refer, and published his investigations in the journal aforesaid. Our engravings are reproduced from Mr. Pierce's report, and the descriptive notes are condensed from the same source.

Fig. 1 shows the natural size of the diseased almond leaf. Fig. 2 is a young twig showing the disease spots. Fig 3 is a twig of old wood showing at *a* an oval disc of tissue killed by the fungus, while the central portion *b* is still living and furnishing sap to the fungus upon it. The parts *d d*, the larger portions of the twig, have apparently been indirectly killed by the fungus. Fig. 4 shows a cross-section of a partly killed twig, the rupture of the tissue by the fungus being clearly distinguishable. Fig. 5 is another leaf; natural size, showing the fungus injury, and Fig. 6 is an enlarged view of the leaf injury, showing how the fungus destroys a circular part, which, by subsequent shrinking, separates itself from the body of the leaf, and, falling out, leaves the familiar "shot hole," as shown at *e*, after the center has dropped out. Figs. 7 and 8 are crosscuts through the affected parts of a leaf, showing how the disease is thrown out of its natural alignment by the fungus. The other portion of the engraving, marked 30, gives the growth of the fungus as seen with high magnification, the fungus sending its fruiting stems above the surface of the leaf, while the feeding stems or mycelia invade the leaf substance below.

The orchard view shows an almond grove near Orange, prematurely stripped of leaves during July, 1891, through the action of this fungus, which is known botanically as *Cercospora circumscissa*, combined with lack of sufficient moisture. Many terminal twigs of last year's growth are dead and dry,

Accompanying the report to which we have alluded are some practical suggestions by Dr. B. T. Galloway, chief of the Division of Vegetable Pathology. He commends spraying with the ammoniacal solution of copper carbonate. The formula is, copper carbonate 5 ounces; aqua ammonia (26°), 3 pints; water, 45 gallons. The copper carbonate should be placed in an ordinary wooden pail, and just enough water added to make a thick paste; then pour in the ammonia and stir until all the copper is dissolved. If three pints of ammonia is not enough to thoroughly dissolve all the copper, add a sufficient quantity to bring about this result. When completely dissolved, pour the copper solution into a barrel holding 40 or 45 gallons; then fill the barrel with water. Where there are a large number of trees to treat, we find it very convenient to prepare the concentrated ammoniacal solution in advance. This can be done at leisure, taking care always to put the liquid into a tightly corked jug or demijohn as soon as it is made. When ready to spray, take the concentrated fluid into the field, and for every three pints add 45 gallons of water.



A FUNGOID DISEASE OF ALMOND TREES—ITS NATURE AND EFFECTS.

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Any subscriber sending an inquiry on any subject to the Rural Press, with a postage stamp, will receive a reply, either through the columns of the paper or by personal letter. The answer will be given as promptly as practicable.

Our latest forms go to press Wednesday evening.

ALFRED HOLMAN.....General Manager

Saturday, August 20, 1892.

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☞ *See Advertising Columns.*

The Week.

The warm wave which is on as we go to press on Wednesday, should give relief from the abnormally low temperature, fogs and dews of last week. The weather has delayed fruit-drying somewhat, and has not favored the development of adequate sugar contents in the grapes, but this change should cure all that. Fortunately the evil has not been great, but with the world empty of fruit and crying out for it, California producers look dark at every cloud or dew-sparkle or downward degree in the mercury. Every pound of fruit should count this year, and we expect it will do so, not only by its large value in the producer's purse, but by the still greater confidence in fruit industries and the development of the State in these directions. Even the most conservative, who have anticipated overproduction, do not have anything to say of such a thing now.

The season of rest with farmers not in fruit lines is now at hand. The grain harvest is well out of the way, the cows are reaching the ends of their courses; even the hens are giving most attention to fall fashions in plumage. As homework thus lightens a little, let all who can seek rest and a change of scene. The fashionable patronage of resorts is lessening; there is plenty of room at springs and seashore and mountain tops. The season of the fairs has been ushered in. The opportunity to enjoy nature, art and artisanship is open to all. Rest and recreation bring a firmer grip to the plow-handle, a lighter heart to domestic duties, a keener appreciation of the blessing of a quiet home and home-companionship.

Our Fruit Abroad.—Last week we alluded to the continued shipments of California fruits to Liverpool. It has since been learned by cable that the second consignment by the steamer Germania had arrived there in fine condition and was sold at a big advance over the first shipment. By September all French pears are out of the market and the California pears will have big sales. The fifth special train left Sacramento on Tuesday evening, and was composed of five cars all loaded by A. T. Hatch.

The heat from the sun is said to have lately hatched five chickens near Muncie, Ind.

Prize Letters on Dairying.

Our experience this summer shows that we cannot expect wide competition for our prize letter awards during months in which those who can write on the subjects are too busy with practical operations to allow them to indulge in writing. For this reason the competition in the subjects of fruit-harvesting and fruit-drying has not been as general as we desired. Still we have secured good letters and hope next week to present those on fruit-drying.

The subject for September is dairying, and as the light season in dairying is now beginning, our dairy readers will be able to give attention to our offering which is as follows:

SEPTEMBER.—Dairying: The best practice in every productive step from the pasture and the cow, through the feed barn and silo into the dairyhouse or creamery and on to the market. A full discussion of results with improved practices and implements.

For letters on this subject we offer three prizes: first, cash $10; second, cash $5; third, Rural Press one year.

Of course, we do not mean that each writer shall prepare a full treatise on dairying in all the lines suggested. We merely desire each to write of his or her own experience in dairying, and describe the results reached by such experience which favor certain methods and materials. If each letter-writer tells how he succeeds best and what improvements he has proved to be of advantage, the letters all taken together will form a valuable review from which all may draw useful suggestions.

As we are a little late in making this offer explicitly, we will extend the time a little and allow letters to be mailed to us as late as September 10. This will give plenty of time for a good bunch of letters. Whether you keep one cow or hundreds of them, write out your experience and describe your practices. The writer may make his letter as long as he or she pleases; the competition is open to all. The reader of a good letter does not care whether the writer is a regular subscriber or not, nor do we. We want the facts and the successful experience from all trustworthy sources. We will therefore thank any subscriber who may call the attention of anyone, qualified to write a valuable letter, to our prize offer.

The 1892 Vintage.

The estimated shortage in the wine-grape crop of this State, made several weeks ago by the Rural Press, is fully substantiated. Clarence J. Wetmore places the crop this year as follows: Santa Clara county, 50 per cent of the crop in 1891; Napa, 40 per cent; Sonoma and Alameda, 70 per cent, and Fresno a full yield. The short crop of wine-grapes makes it quite certain that the vintage this year will be the smallest in any year within at least half of a decade. But if there is any doubt regarding the small vintage, it would be removed by the knowledge that about all the wine-grapes in Fresno and a part in Sonoma have been sold, dried, for delivery in September and October. The contract price at which 400 carloads out of the 500 carloads, which it is estimated will be dried, was placed, ranges from 3¼ to 3⅝ cents per pound. The taking of such a large quantity of dried wine-grapes, together with a shortage in the crop, ought to create better prices for California wine, and doubtless will as soon as the present forced selling of the 1891 vintage is over. These forced sales are not confined to this year, for every year preceding the new vintage many winegrowers are forced to sell for the lack of cooper-room to accommodate the incoming vintage. Growers having ample accommodations do not sacrifice their wine, but hold until there is a better market, which usually follows the forced sales. Wine-dealers are now holding off to get as cheap as possible all the wine which will be forced on the market within the next thirty days.

Increasing Demand for Wine Grapes.—The increase in consumption of dried wine-grapes is well-illustrated in the steadily growing shipments. This year, C. J. Wetmore estimates that fully 500 carloads (5000 tons) will be dried for market, and that out of this large quantity, 400 carloads (4000 tons) have been contracted for future delivery at from $62.50 to $72.50 per ton. The demand comes largely from restaurants, hotels and the middle class. It is claimed that dried wine-grapes are given preference in certain cooking over dried raisin-grapes, owing to their having more acid and therefore imparting a finer flavor.

A Fall in Hops.—It is reported from Wheatland that last week 70 acres of hops on a trellis fell in John Doddah's yard. The trellis was new, and the anchors were too weak to hold the immense weight of the vines. The sound of the falling trellis was heard several miles. As the hops are nearly ripe a few hundred dollars will temporarily repair the damage and the loss of hops will not be great.

The Dried-Fruit Industry.

Effort is being made to force the market for new crop dried fruits to lower prices. As yet the movement has not met with success, and it looks very much as if it will not, for the general situation not only warrants present values, but justifies the belief that prices will be higher before the month of May in next year. The claim made by the Rural Press of short fruit crops east of the Rocky mountains, and also in Europe, has been fully confirmed. The short crops advanced prices for green fruit to such figures that the small quantity of fruit at the East was marketed fresh, and as a result the supply of dried from the large fruit-growing States east of the Rocky mountains has been cut off, and to this coast consumers must look for supplies.

At one time it was claimed by the better informed that large quantities of apples would be evaporated in the States of New York and Michigan, and that this would, to a certain extent, meet the demand for other dried fruits. Even this seems doomed to disappointment. In confirmation of this, we give the following letter written to Baker & Hamilton of this city by D. H. Goodell, president of the Goodell Company, manufacturers of cutlery, apple and potato parers, etc., under date of Antrim, N. H., August 6, 1892:

> The apple crop in New York and Michigan, where most of the evaporators are located, is almost a complete failure. There will be a scarcity of evaporated apples in the near future or early in the coming year. The peach crop is probably the smallest the country has known for years. It will be wise for people who have apples to evaporate them in large quantities this fall.

Besides the above a leading manufacturing firm at Baltimore, Maryland, also in a letter to Baker & Hamilton, says: "There is no fruit in this section east of the Rocky mountains."

This information makes it certain that this coast will have to furnish the bulk of dried and canned fruit for consumption in the United States, and as the crop of fresh fruit in Oregon and Washington is short, California will be looked to for more liberal supplies. In this State the quantity of fruit that has been and will be canned this season, will break all former records. It now looks as if it will aggregate fully 20 per cent more than the largest pack, while the grade will average better. The dried fruit crop will not be much if any more than 65 per cent of the quantity that was cured in 1891. While the quantity will be less the quality will average better. The falling off in the quantity that will be dried is not so much due to a shortage in the crop of fruit as to the exceptionally large demand for green fruit at the East and the improved railroad facilities for moving it on quicker time, and with much less loss than ever before. The shipments eastward aggregate fully 50 per cent more than they did in the year of heaviest shipments.

The short fruit crop abroad, particularly of pears in France and tree fruit in Great Britain, will create a large demand on this country for canned and dried fruit, and as the crop of canning fruit and also of apples and other fruit for drying is short, the East will not be able to meet its own wants, let alone supply any of the requirements from foreign countries, and consequently California fruit will have to be taken. To show the foreign demand, we will state that for the fiscal year ending June 30, 1892, there was exported by the United States, of dried apples, 26,042,063 lbs, and green or ripe apples 938 743 bbls. There was also exported, of canned fruit, $1,558,825, and other green, ripe or dried fruit, $131,682. These statistics show that European and other foreign countries draw heavily from us, even when the crop abroad is an average, and with a shortage abroad, what would they take, provided it could be had?

Sales of Fruit by Auction Discontinued.—After a trial of three weeks, the sale of fruit by auction has been discontinued. That the venture commenced under favorable auspices cannot be denied, for there was quite a number of large fruitgrowers who consigned fruit for sale, and the market was, for the first two weeks, active and strong under moderate receipts and a free buying by canners and the trade. With heavy supplies of fruit, buyers left the auction system severely alone unless they secured bargains, and followed in the well-beaten trade tracks of former years. Whether the auction system can be made a success in this city is problematic. At the East, sales of fruit are confined largely, if not entirely, to extra choice selected fruit grown elsewhere, and which is furnished direct to local consumptive points, and therefore it is that success has crowned the auction sales of foreign fruits, Florida oranges and California fruit. Auction sales of deciduous fruit from this State meet with the best and often the only success when it comes on the Eastern markets ahead of the fruit crop at the East or before consumptive points are supplied locally.

From an Independent Standpoint.

Many readers of the RURAL PRESS will not, we imagine, need to be told that the political managers are now drumming the country in the interest of the campaign funds. They are all at it—Republicans, Democrats and People's party men—so one cannot be condemned without condemning all. The truth is that successful politics in these days calls for money and a good deal of it. Formerly, the chief expense was for oratory, but that is now one of the minor items. Band-hire, hall-rent, torches, bill-posting and ten thousand other things call for an expenditure that is at least quasi-legitimate; but beyond this there are large outlays more or less direct in the way of corruption. It is perfectly well known to everybody who has given any attention to practical politics that at least one half of the money spent in political campaigns is given directly to persons of questionable character to employ in secret ways and that no accounting is either asked or desired. Neither the men who give the money nor the party officials through whom it is disbursed, want to burden their consciences with detailed knowledge of the ways in which the money is spent. They want to place it where it will "do the most good," and they want to be able to say that they have done no wrong. They do not, indeed, go down into the cellars, but they do the same thing in effect. In every city ward there is always some brutally forcible man, some "blooded" hoodlum—usually a saloonkeeper—who "runs," or assumes to "run," the worst element in its political conduct. The usual method of the party manager is to turn over to the local boss a lump sum to "pull things the right way." This local boss, who is of course an unscrupulous scoundrel, does the buying, or the bulldozing. He is the final agent in the application to disreputable ends of money given by respectable men. Now, it is a plain proposition that if somebody did not provide the money for buying votes, no votes would be bought. To us it seems equally plain that the man who supplies the money is as much a public enemy and as much a criminal, in a moral sense, as the man who is bribed. The responsibility cannot be dodged by shifting it to agents and blinding yourself to their acts. If the money which you give for campaign purposes is used for corruption, you are a party to that corruption. Since it is an admitted fact that large sums are spent corruptly, it behooves every man who values his own character and who does not wish to become a public enemy, to require an accounting for every dollar he gives for political purposes.

The presidential campaign is fairly well in progress in the Eastern States. McKinley, Mills, Foster, Watterson, Manley of Maine, Fessenden, Payne of Wisconsin, Campbell of Illinois, and a host of other well-known men have already taken the stump and are making a fairly active campaign. They deal almost exclusively with the tariff, since the two platforms give scarcely any ground for controversy on the other great questions involved in them, namely, that of the currency; while the infinitely greater and more vital question involved in the labor riots at Homestead, Pennsylvania, and elsewhere, is studiously avoided. Neither party dares treat of it. We therefore have the curious spectacle of a national campaign fought out between the speakers and the party journals on a question which the country at large considers only secondary. It would seem that the "business of politics" has reached that stage in the United States when neither of the great political parties dares take up and honestly discuss the principal question presently before the country.

The country has not forgotten the unmeasured condemnation heaped by the Democrats upon the last Republican Congress. In the campaign of 1890 the very air was full of the "Billion Dollar Congress," and it was very largely in response to this cry that the next (present) Congress was given to the Democrats. One session of this Democratic Congress has passed, and it must be admitted that it has not covered itself with economic glory. Its appropriations of public money aggregate $507,708,330—a saving of only ten millions out of upward of five hundred as compared with the first session of the "infamous" and much abused "billion dollar" session. The fact shows chiefly the insincerity of partisan criticism; but incidentally it puts in bold relief the prodigious advance our Government is making in money-spending. Here we see a Congress elected upon the impulse of a revolt against extravagance, pledged to economy and under every motive of financial restraint and prudence, and yet unable to hold the charges of the Government below five hundred million dollars per year. The truth is, as Ex-Speaker Reed bluntly puts it, that this is a "billion dollar country." But we must not forget that a good half of our annual outlay goes for pensions; and it is well to bear in mind further that this pension charge takes more money than it costs to maintain the combined standing armies of Europe.

Gen. Field, the Vice-Presidential candidate on the People's party ticket, was interviewed at Memphis last week, and spoke enthusiastically about the chances of his party in the coming election. He thinks the People's party will break up the solid North, the solid South, the Grand Army of the Republic, and the solid negro vote. "We will," he said, "carry every State west of the Missouri river, Colorado, Nebraska, Kansas, Nevada, Wyoming, California, Washington, Montana, North and South Dakota. In the South, we will have North and South Carolina, Georgia, Alabama, Texas, and probably Tennessee and Arkansas." General Weaver, when in San Francisco last week, was equally enthusiastic, but less definite in his view. The People's party, he said, would carry all the "silver States," whatever that may mean, and said that its principal fight was with the Democratic party. These views are given simply as matters of news. It is still early for prediction as to the results of the campaign, but it looks to the RURAL as if there was something more than a likelihood of such a disturbance of the old lines as to prevent a majority for any party in the Electoral College. In that event, the election would go into the House of Representatives, and Cleveland would be President; and the Senate, which, under the Constitution, would be given the power to elect the Vice-President, would of course choose Reid. This is a possibility which the public may just as well bear in mind.

The time is prolific of labor troubles. Besides the two great strikes already on at Homestead, Pa., and Cœur d'Alene, Idaho, three others have developed during the past week. At Buffalo, New York, nine hundred railroad yardmen are striking over a question of wages. They have resorted to violent methods, and besides dealing roughly with non-union men put at their abandoned work, have damaged the property in their charge and have burned nearly three hundred freight cars loaded with goods worth half a million dollars State troops are on duty to protect property, but they have not been able to stop rioting or to prevent the abuse of non-union workmen. In Tennessee there is another labor riot. Here the iron and coal miners are preventing by violence the Tennessee Iron, Coal & Railroad Company from employing convicts in their mines and timber camps. In three instances the guards have been overpowered, the camps destroyed, and the convicts returned to the State penitentiary near Nashville. All this has not been accomplished without a good deal of brutal violence, of which both the guards and the convicts have been the victims. Nearer home, at Port Gamble, on Puget Sound, there was a riot on Friday last of a very different kind. Three vessels lying at anchor were boarded by gangs of union seamen and their crews dragged or driven ashore and warned not to return. The men thus forced from their work belonged to a union, but not to the particular fraternity which dominates the shipping of Puget Sound. Here, therefore, we have warfare carried on with the fierce methods of piracy, not against non-union men, but against the members of a non-affiliating and less powerful organization. If there be among the champions of the rights and interests of workingmen anybody bold enough to claim that there is any sort of justice in these proceedings, he is no friend but an enemy of labor. Organization of workmen into unions is as legitimate as the organization of capital into companies and corporations. Organization is labor's legitimate weapon of defense, but the right to organize no more carries with it the right to violent enforcement of demands, just or otherwise, than the right to bear arms carries with it license to murder. The right to strike is a legitimate one, as sacred as the right to labor, but it does not carry with it the right to prevent others from making such engagements as they choose. The labor unions are going to treasonable lengths in assuming the right to enforce their own rules, and it is the duty of the Government to employ its whole power, if necessary, to defend the constitutional rights not only of property-holders, but of non-union workmen. This country cannot allow the trades-unions to usurp the functions of Congress; it cannot allow the rights of its citizens, either capitalists or non-union workmen, to be trampled upon. If it should fail in this duty, it would not be worthy to live, and could not live. It must assert, definitely and positively, that the right of the property-owner to his mill, his farm, his railroad or his ship, and that the right of the humblest citizen to labor, are as sacred as the right of the trades-unionist to strike.

Rumors of internal dissensions in the Transcontinental Traffic Association call freshly to mind the complex system of injustice by which freight rates between California and the Eastern States are maintained. First, there is an agreement between the several transcontinental railroads for mutual advantage to maintain uniform rates; and, second, the maintenance of these rates by the Pacific Mail Steamship Co. is secured by the payment of an annual subsidy of $850,000. This enormous bribe has been paid from the funds of the Trancontinental Association, to which all the railroad companies contribute equally, while its benefits have chiefly accrued to the Southern Pacific. It is now given out that the other companies are tired of being assessed for the benefit of the S. P., and that they will withdraw the subsidy, leaving that company to pay the whole sum or submit to steamship competition by way of the Isthmus. It is the condition of things exposed in this controversy that forces the RURAL, with thousands of others, to the judgment that there can be no sure relief from oppression in transportation, except in Government ownership or control of all transportation systems. The infamy of an arrangement by which the people of a State are taxed $850,000 a year, to be applied to the suppression of what is good for their interests, is beyond words. The power to do this is too great and dangerous a power to be left safely in the hands of individuals. For the protection of the public the Government will, in the end, be compelled to destroy it.

The RURAL departs from its practice of dealing only with American topics to note the political revolution which the past week has brought about in England. The late parliamentary elections have gone against the Conservative government, whose head is Lord Salisbury, and the consequence is the reseating of Mr. Gladstone—the "Grand Old Man"—in the Prime Minister's office. The interest of this event is chiefly connected with the Irish policy. Mr. Gladstone, as is well known, is the champion of Irish Home Rule and it will be the main effort of his Ministry to establish this principle in the government of the Green Isle. Americans, almost without exception, regard this policy with favor, and their satisfaction in Mr. Gladstone's success is colored largely by sympathy with his purposes. But it is a difficult task to which Mr. Gladstone has set himself. He has, amid a tangle of inherent perplexities, to create a new system for Ireland; and, furthermore, he must do it in the face of a hostile and powerful opposition and with the aid of only a slender and ill-organized majority. Besides the difficulties of this situation, Mr. Gladstone labors under the burden of advanced age (he is 83), and if he were not what he is, the most resourceful and gifted man of his time, the undertaking would seem hopeless. It is generally believed on both sides of the water that the Ministry will be a short one and that the complete success of Mr. Gladstone's plans is hardly to be looked for.

Look Here.

Presentation of Corre ative Propositions.

New York Sun, Dem.

We invite all wage-workers, and particularly those who, when Senator Palmer made his extraordinary speech on Homestead in the Federal Senate, felt that they had found a friend whose support would be useful and welcome, to look at the other half of the industrial scheme which this socialist Senator proposed. We will put them together, and here is a section:

SENATOR PALMER'S SCHEME.	THE OTHER SIDE.
These large manufacturing establishments must be understood to be public establishments in a modified sense, and the owners of these properties must hereafter be regarded as holding their property subject to the correlative right of those without whose services their property would be utterly valueless.	These establishments must be regarded as public, and the owners of labor engaged in them, the employes, must be regarded as holding their labor subject to the correlative right of those without whose machinery their labor would be valueless.

If Palmerism, as the Senator formulated it, is to be established, the supplementary regulations given above must go with it as a necessary consequence of justice.

It would be slavery. There wouldn't be a free laborer where such a system prevailed. They would all be subject personally to the "correlative rights" of property owners with whom they worked. The lash would be a necessary adjunct of such a system. A rebellious laborer who desired not to work would have to be knouted as the only means of making him work against his will. Prison or starvation would be ineffectual, of course.

Another point in Palmerism will suggest some interesting reflections:

SENATOR PALMER'S SCHEME.	THE OTHER SIDE.
I maintain that these laborers, having spent their lives in this peculiar service, have the right to permanent employment.	These companies, having made machinery for special purposes, have a right to the permanent service of their employes.

No strikes. No leaving work. No leaving the country. The wretched serfs must stick to their tasks. No hope of change or of other and better business for the slaves of Palmerism.

How do workingmen of this time and place like the scheme? Out with it! Down with the cranky and foolish demagogues, who think they can catch the fancy of intelligent Americans with such vicious, such intolerant nonsense!

To the workingmen we say that there is only one thing to be done in such a situation, and it must be done emphatically, if the good name of labor organization is to be preserved! Down with anarchy at Homestead and everywhere else!

DOYLE FRUITGROWERS' ASSOCIATION.—We received just too late for insertion in this issue a report of the last meeting of this Association, which is doing a work of much local interest and value. We hope to publish the report next week.

Weather and Crop Bulletin for Week Ending August 15th.

The following crop report for the week ending August 15th, is compiled from the reports of 20 correspondents at places in 19 counties, and covers, in a general way, the principal agricultural and fruit-growing districts of the State.

It is a source of exceeding regret to the acting director, William Burrows of the State Weather Bureau, that so many regular correspondents failed to report this week, and it is hoped and earnestly requested that next week may see a marked improvement in this respect.

The only rainfall reported was from Santa Rosa, where a light but beneficial fall occurred on the 11th.

Grasshoppers are reported to be damaging crops to a considerable extent in the southern part of Humboldt county.

There has been very little foggy or cloudy weather, and the temperature has generally been below the normal in all districts, though the latter does not seem to have produced any more serious result than that of retarding slightly the ripening of certain kinds of fruit.

At Sacramento the weather has been virtually cloudless, there being but two days which were partly cloudy during the forenoon.

The mean daily temperature at the Weather Bureau office has ranged from 10° below the normal during the first part of the week to 4° above on Sunday and Monday. The highest temperature of the week was 95°, which occurred on Sunday, the 14th.

The prevailing winds have been from the southwest, with a maximum velocity of 18 miles per hour from that quarter on the 10th, doing some slight damage to hops in this vicinity.

Local reports and those of correspondents indicate that the hop crop is generally in fair condition throughout the State.

Taken as a whole, the weather seems to have greatly favored the ripening and harvesting of all fruit and grain crops, and from nearly all sections of the State from which reports have been received, the conditions generally seem decidedly gratifying.

HUMBOLDT.—*Eureka*—Precipitation to the amount of .09 of an inch fell during the week. Excepting the last two days, which have been warm and clear, the weather has been foggy. Wheat and oats are now being harvested and the crops are good. Grasshoppers are doing much damage to all crops in the southern part of the county.

LAKE—*Upper Lake*—The past week has been cold, with a good deal of wind, and fruit is ripening very slowly, in addition to being later than usual. Threshing is nearly over, and the crops are up to expectations. Grapes look well but need warmer weather.

SOLANO.—*Vacaville*—The weather the past week has been unusually mild, which has been a great help to fruitgrowers in shipping green fruit. The quantity of fruit dried will be comparatively small this season.

SONOMA.—*Santa Rosa*—A gentle rain fell on Wednesday morning which did much good. Temperature for the week rather below the normal; Sunday was the hottest day of the week. Hops are growing and filling out well. Fruit is ripening rapidly, and the canneries and driers are using most of it.

SACRAMENTO.—*Franklin*—The weather for the past week has been windy and warm. Harvesting is nearly finished, and farmers are hauling to the warehouses on the river. The grain is of fair quality, but contains a great deal of smut.

Sacramento—The weather has favored the harvesting and shipping of fruit and the growth and ripening of hops.

SAN JOAQUIN.—*Stockton*—The wheat crop is falling short of anticipations. We had hoped to realize a much larger yield.

Lodi—Highest temperature, 92°, on the 13th; lowest, 51°, on the 8th; for the week it was below the average; prevailing winds, west to southwest. Some fields of wheat are yet to harvest. No change to report as to the yield or quality. Early grapes are being gathered and put upon the market, and the quality is fair. The crop is short owing to the cool weather. The demand for watermelons has not been urgent.

AMADOR—*Oleta*—Weather unusually cool and fruit ripens slowly, especially grapes.

PLACER.—*Newcastle*—Highest temperature 95°, lowest 50°. All climatic conditions were favorable for the ripening of the fruit crop, which is fully up to the average in all respects and prices are good.

SANTA CLARA.—*Gilroy*—Prunes and other fruits are being gathered; fair crops and good prices.

TULARE.—*Visalia*—Temperature below the normal. Fruit hardly ripens fast enough, still we will have a very good crop and fair prices for everything.

TEHAMA.—*Red Bluff*—Temperature unusually low; dews have delayed threshing; the grape crop is late. The cool weather is retarding the ripening of fruits throughout northern California.

FRESNO.—*Fresno*—Early peaches and pears are about done. Malaga grapes are coming in. Weather cloudless, with early dews. Temperature below the normal. Muscats are several weeks late in ripening.

LOS ANGELES—Cool, cloudy weather has somewhat retarded fruit-drying. Grapes need hot weather to hasten ripening, as they are late. Peaches are ripening and drying is in full operation.

SANTA BARBARA—*Santa Maria*—Cool weather still prevails. Grain is all threshed, and the total output is rather light. Beans, corn and potatoes will be lighter than an average. The cannery has finished its run on apricots and will begin on pears and peaches next weeks. Maximum temperature 78°, minimum 50°.

COLUSA.—*Williams*—Average temperature and sunshine have prevailed. The conditions continue favorable.

Willows—Temperature apparently below the normal, with about normal sunshine. Grapes and peaches are ripening fast and the crops will be good.

THE BEST PAYING BUSINESS IN WASHOE COUNTY.—Ten carloads of mutton left Reno last night for San Francisco from the fat herds of P. L. Flannigan. Very few people realize the importance of this industry to our town and county. There is an estimate by competent authority that as many as 200,000 head of sheep are owned in Reno and that nearly another 100,000 are bought in Oregon and other States and driven here to fatten for market. Fully 100,000 sheep and lambs are sold to the California butchers every summer. The heavy owners are: P. L. Flannigan, 30,000; W. M. Van Buren, 4500; D. C. Wheeler and associates, 30,000 here and 30,000 in Humboldt; James Dunn, 4000; J. B. Talbot, 12 000; Owen Murphy & Bro., 11,000; Henry Anderson, 25,000; Fraudsen & Ross, 15,000; Salvaton & Matsot, 8000; W. A Scott, 8000; Theodore Winters, 30 000; G. W. Mills, 6000; Reed, Douglas, Holcomb and others, 70,000.—Reno Evening Gazette.

Preserving Fruit for Exhibition.

In the last official publication by the California World's Fair Commission we find the following:

Wm. C. Watkins of Santa Ana, who is employed by the Orange County World's Fair Association as an expert for putting up fruit, writes as follows with regard to the formula in use and also other items of interest: "The most reliable preservative I have is the Baker compound, as per Prof. Hilgard's formula, and though it takes the color out of very highly colored fruits, it is a splendid preservative and is easily prepared. I have already put up between 50 and 60 large jars of fruit of different varieties for the county, and the majority of it is preserved as above." [What is known as the "Baker compound" is water charged with the fumes of burning sulphur, as described by Prof. Hilgard in a university circular published in the RURAL PRESS May 21, 1892.—EDS. PRESS.]

George Ludewig, a druggist, writing from Santa Maria, Santa Barbara county, states that the following compound for the preservation of fruit worked admirably when he was preparing fruit in Germany for exhibition purposes a year or two since: Dissolve from 100 to 500 grams of sugar, according to density, in one litre of water, then add from two and a half to three grams of salicylic acid. An addition of a very little glycerin is desirable. He states that fruits preserved in this liquid keep for at least two years, preserving their aroma, color and shape admirably. Apples, pears, etc., can be preserved in a storageroom perfectly fresh, without preparing them in any form, by dropping once or twice a week a few drops of pure phenol on the floor of the room. This will keep the fruit fresh until July of the following year. In preparing the above preserving fluid, the use of iron vessels, spatulas and also water that contains iron, must be avoided. Only the best salicylic acid should be used.

Mrs. Flora M. Kimball writes from her home in National City, saying that on her return trip from San Francisco she called at Fresno, where she made a careful examination of the World's Fair exhibit and the work of preparation now in progress. She states that the secretary of the association, Mrs. M. B. Stuart, is personally visiting the orchards, gathering the fruit and carefully placing it in preservative liquids. Many recipes have been experimented with, but that giving the best results is one prepared by a local resident of the town. So far the fruit put up by this method retains its color to perfection and is very attractive in appearance. The final results are looked forward to with interest, and if successful, the entire State will be benefited by the recipe. A number of boxes of dried fruit have been carefully packed, and in order to obviate the possibility of insect-breeding in the fruit after it is packed, Mrs. Stuart dips the dried fruit in hot water, then carefully dries it. By this method the color is not only preserved, but improved.

It is to be regretted that the commission did not publish this Fresno recipe, or if it is a secret, publish the owner and the price at which it can be had. A thoroughly satisfactory fluid is still a desideratum.—EDS. PRESS.

Special Berkshire Premiums.

SPRINGFIELD, ILL., Aug. 6, 1892.

TO THE EDITOR:—The American Berkshire Association will, in accordance with the resolution below, offer the following special premium at all State and Provincial Fairs for 1892:

Resolved, That exhibits of Berkshire swine at all State and Provincial Fairs where separate classes are provided in 1892 for recorded Berkshires, be encouraged by the American Berkshire Association, by the offer of a special prize of the first ten volumes of the American Berkshire Record, valued at $50. Said prize to be offered for the best recorded sow and litter of not less than five recorded pigs under six months of age, bred and exhibited by a resident of the State in which the fair is held.

The conditions of the competition for this premium to be as follows:

1st. That there shall be not less than three competitors for the prize of $50 offered above.

2d. That the competing animals be recorded in the American Berkshire Record prior to date of entry at the fairs, and that lists of such entries be furnished the secretary of this association at the close of the fair.

3rd. That a copy of these resolutions be printed in the premium list of the fairs in connection with the classification of swine, or that reference be made at the close of the classification of swine, to the publication of this announcement elsewhere in the premium list. For further particulars, address JNO. G. SPRINGER,
Secy. American Berkshire Assn.

This premium will be offered at the California State Fair at Sacramento, September 5th to 17th.

Entomological Fashions.

OAKLAND, August 13, 1892.

TO THE EDITOR:—In the last RURAL PRESS was a fashion article—"Tin Collars for Cankerworms," that interested me very much. It was quite a new idea to me. I have often noticed the forsaken look the poor worms have, and am glad that at last someone has taken pity on them. I see by the article that "October is the month that the worm begins to travel." With so many weeks to prepare it, it would be a shame if any farmer let the cankerworms on his place start out without being suitably attired for the occasion. By rising up a little earlier in the morning and giving up a few evenings to it, he could easily make collars enough, and I am sure it would gladden his heart next winter, as he sits by his cosy fire and the wind and the rain are dashing against the window to think that somewhere are numbers of cankerworms whose hearts turn in grateful remembrance to their benefactor, for you know "the worm will turn." L. C.

A Sale of Dried Fruit by Private Bids.

CAMPBELL, Santa Clara Co., Aug. 9, 1892.

TO THE EDITOR:—I inclose some printed matter that I believe will be of interest not only to fruitbuyers, but to many of your other subscribers.

Producers, knowing that there is a short fruit-crop, both domestic and foreign, are not disposed to do more than smile at the effort to "bear the market."

Canners and greenfruit-shippers have left but little to dry, and, for that little, top prices will be paid.

As far as we are able to learn, nearly all the dried fruit of the State, except the small quantity in this valley, has been sold. READER.

THE CIRCULAR INVITING BIDS.

The following are the chief parts of the circular to which our correspondent alludes:

Bids through the Santa Clara County Fruit Exchange will be received for the "Camel Brand" of fruits until August 22d, at which time doubtless, most, if not all of this brand, together with such other fruit as the stockholders of this Exchange may offer, will be sold. Should a later sale occur, notice will be given.

The "Camel Brand" of fruit is all graded before being dried. The objects in thus grading it are two:

First—To produce the best possible brand of dried fruits. This is accomplished by keeping fruit of the same kind together, both while drying it and afterward.

By this method small fruit is not dried as hard as a bone, nor is large fruit insufficiently dried, but each size is properly cured. This could be done otherwise, but the expense of doing it prevents its being done. Thus grading and curing the fruit gives it a more attractive appearance, and hence makes it more salable.

Second—To make it possible to accurately describe this fruit to the trade. A buyer can buy this brand without seeing the fruit and yet definitely know what he is buying. All of this fruit is gathered uniformly ripe and such fruit as apricots, peaches, etc., are well-bleached.

The apricots of this brand are graded into four sizes and designated as follows, namely:

Those 1¾ to 2½ inches in diameter and up are termed Extras.
Those 1½ to 1¾ inches in diameter are termed First Grade.
Those 1¼ to 1½ inches in diameter are termed Second Grade.
Those 1 to 1¼ inches in diameter are termed Third Grade.

In all except the Third Grade there is no perceptible difference, except in size. That grade is inferior to the others in quality as well as size.

Peaches of this brand are graded in three grades, each designated as follows, namely:

Those from 2¼ inches in diameter and up are termed Extras.
Those 1¾ to 2¼ inches in diameter are termed First Grade.
Those 1½ to 1¾ inches in diameter are termed Second Grade.

Prunes (Cal. French) will be sold as usually graded, as will all other fruits not otherwise designated.

All goods will be sold for spot cash f. o. b. Campbell, Cal. Those wishing to see the goods before buying can have samples sent on application. Buyers will not be charged an admission fee. They may be represented by agent or broker. Those not present will be notified by wire if their bids are accepted.

SANTA CLARA COUNTY FRUIT EXCHANGE.
Address all communications to assistant manager, Campbell, Cal.

A Well-Known Fruitgrower's Observations.

SAN JOSE, Aug. 16, 1892.

TO THE EDITOR:—I. A. Wilcox, fruitgrower, located near Santa Clara, has 60 acres of the very best varieties of fruit trees adapted to his locality, chiefly of pears and prunes. Nothing has prevented a full crop this year. His pears are being shipped by A. Block to the Eastern markets. The prunes are being delivered, as the fruit ripens, to the fruit drier at Santa Clara, at the contract price of $57.50 per ton, and a bountiful crop is assured.

In an interview and ride over his farm, Mr. Wilcox remarked that he had just returned from an extended trip East, returning by the way of the Canadian Pacific and Oregon. Mr. Wilcox informed me that the fruit crops have not only been short in the best districts East, but says the same may be said of Oregon, where only a half crop is estimated. Next year Chicago will be hungry for fruit supplies, as everything will be cleared up this year, and the millions to visit the Fair will require an extra supply.

Mr. Wilcox visited the salesrooms for California fruit in several cities and was pleased with the way the fruit is handled by the auction houses. While the fruit brought good prices, some of it would have realized better for the packers if none of it had been too ripe to keep well. Some brands of cherries retailed as high as 50 cents per pound, and from that all the way down to $1 50 for ten-pound boxes not in fair condition. The packing was generally good, but some of the cherries were moldy when the packages were opened.

Invitations have been sent out by the West Side Fruitgrowers' Association to have a meeting at their rooms on Monday evening, this week, to consider the advisability of having a law passed to protect the blackbirds, which are said to be of much value in destroying the moths in the orchards. Mr. Wilcox informs me that many of his prunes are injured by the wild canary birds, linnets and small greybirds along the borders of Campbell's creek, which runs through his farm, the border of the stream being covered with willows, which he is cutting down to destroy the resorts of these birds. He believes that all these birds are of special value to the general farmer and fruitgrower; but experience only will determine where they are of more injury than benefit. Mr. Wilcox has not noticed any injury to his fruit by the blackbirds till it has dropped from the tree and been perforated by the other birds above-named.

W. H. M.

CANADIAN EGG EXPORTS.—We learn from an exchange that Canadians have sought a market for their eggs in England, since the United States levied an import duty of five cents per dozen on them. The result has not been satisfactory. Cases were broken, waste was enormous, and though the eggs looked bright and fresh, they were reported musty by consumers. A shipment of 3600 dozen cost, at 11 cents per dozen, $396; boxing, insurance, collecting eggs, and other expenses came to $35.25, making total expenses $431.25. The shipper received cash, less exchange, $432, making his net profit 75 cents on the shipment.

HORTICULTURE.

Cultivating the Almond in California.

The estimation in which the almond is held in America, says the *Garden and Forest*, is seen from the fact that nearly six million pounds of these nuts were imported in the fiscal year ending June 30, 1890. They were valued, too, at $813,000, or considerably more than all other imported nuts put together, and this, not because they are the cheapest, for they are the most expensive of imported nuts. There are no reliable statistics of the home production, but the area suited for almond cultivation is confined to a few spots distributed throughout the whole length of California, and it is doubtful if there is enough of it, all told, to supply the American market. In the last number of the *Popular Science Monthly*, Mr. Henry J. Philpott gives a description of the processes by which this favorite nut is produced and made ready for holiday tables, from which we condense the following statements:

The trees are all budded or grafted, for although a seedling almond may be an improvement on the parent tree, it is apt to be worthless, and may be deadly poison. This inclination to sport is seen even in grafted trees, for in Mr. Philpott's orchard, in which the cions were all taken from the most prolific bearers of the best nuts among tested trees, some of them never bear at all, others bear worthless nuts, one yields a nearly perfect peach-pit enclosed in a nearly perfect almond-drupe. The variety known as the California paper shell, originated near Mr. Philpott's ranch, is very distinct, although a purely accidental seedling. Its good size, plump kernel, thin shell, sweet flavor and agreeable appearance enable it to command two or three cents more a pound that any other nut in the market. It is truest of all to the type and most distinct in the form of the tree. Some growers claim that it is less prolific than many other varieties, but others say that it is the most hardy and most prolific, as well as the most salable almond grown, and it is predicted that it will drive the foreign nuts out of the market.

The almond tree resembles in size and shape, as well as in smoothness and color of the bark, an unpruned apple tree, while it is the image of a peach tree in foliage and green fruit. The leaf is so exactly like that of a peach, to which it is nearly related, that a casual visitor can scarcely distinguish them. The same is true of the fruit in a green state, which is a peach in taste and smell. The almond is commonly grafted on peach stock, and an orchard of these trees in bloom is a thing of beauty.

The cultivation of the almond is very easy. The orchard is plowed and harrowed once or twice a year, and then the weeds are kept down in the easiest manner possible, but the tree is never pruned, and the fruit is never thinned, both of which operations cause great expense in the cultivation of other orchard fruits, while so far it is infested with no parasites, and the grower is not at the expense of buying and applying insecticides or fungicides. First to bloom in the spring, the almond is the last to mature in the autumn. All summer long the fruit hangs, the image of a green peach, and after the first few weeks never increasing or changing in appearance. Late in August the seam, which is rather deeper than in most peaches, will open in a few of the earliest, and then the growers are anxious to know whether the almonds will open and remain open, or whether the drupe will remain closed, or will open partially and then close tight, for the whole profit of the crop may depend on the behavior of the fruit in this respect. It may cost half of what the crop is worth to pick and husk it.

The nuts are knocked off of the tree with long poles, and if they are well open they are allowed to drop on the bare ground and are husked as they are picked up. Those which do not open are husked with the fingers. The variety mentioned above is one of the freest, and its drupe often falls off spontaneously and leaves the naked nut hanging to the tree. But the nut so freed from the drupe clings tightest of all to the stem and is often hard to knock down without injury to the branches. In the best of seasons a large part of the crop is so badly opened that a canvas is spread under the tree for the nuts to fall on. When all are knocked down the canvas is rolled up and carried to a place where there is a simple table of boards. One picker rubs the nuts to loosen the drupes, and the others husk. The rubber is practically two old-fashioned washboards which slide over each other. The machine is a flat-bottomed trough, six or eight feet long, and open at one end, across the bottom of which pieces of lath are tacked an inch apart. The nuts are scooped in, a few pounds at a time, and a shorter board, also ribbed crosswise with lath and handled like a flat-iron, is rubbed over them, loosening their husks and pushing them toward the open end of the trough, where they fall into a box to be husked. In larger orchards more complicated machinery is operated by horse or steam power, but the drupes and nuts are still separated by hand. The drupes are generally only loosened by the machine; few of them are rubbed completely off, because, if force enough were employed to remove the drupe, it would break the shell; therefore, in many orchards this year, the only way to market the almond was to crack it with the drupe on and sell the kernel.

Picking and husking almonds costs from $50 to $100 a ton, after which the nuts are sent to be dried and bleached with the fumes of sulphur, a process which requires care and experience. If this is done well and the nuts come out bright and evenly bleached, the grower is satisfied, for he knows that it is the color which sells his almonds. It is claimed that fruit, such as apricots and apples, which is sulphured is poison, and yet unbleached fruit will not bring living prices. It is not probable, however, that sulphuring, as it is conducted, is of any real injury even to evaporated fruit, but in the case of the almond it is only the shells that are colored. As a rule, the harder the shell the whiter the almond will bleach, although this new paper shell of California will bleach the whitest of all.

When cured for market, the nuts are stored and shipped like barley, in coarse gunny sacks, and although a single sack costs but seven or ten cents, the whole expense is a burden on California producers to the amount of $2,000,000. Where grain has to be handled from five to ten times before it reaches the consumer, and all grain is shipped from the Pacific ports in this manner, the sack is a still more expensive crudity, and the graingrower loses by it ten per cent of his gross proceeds. But the burden on the almondgrower is trifling, one per cent perhaps of the gross product, and the sack is altogether an advantage, for it saves the delicate shell and furnishes a place for the brand of the orchardist, who is proud of his product and wishes to work up a reputation for it, and it also gives an opportunity for naming the variety contained in each sack.

The practical question confronting each prospective orchardist is, how soon will trees come into bearing and pay expenses and interest on the investment? Some old men who have tried it, conclude that too much planting for posterity is mistaken kindness, for which posterity, lying in the shade, kicking up its heels and letting its faculties rust for want of some planting to do, returns no thanks. But the almond is an early bearer. At four years from seed, Mr. Philpott's orchard yielded $80 per acre gross, say $60 net. This year, at six years old, with prices considerably below the average, the proceeds will be $125 an acre. Few orchards have yielded so much per tree of the same size, but these trees are so wide apart that there are only half the usual number to the acre. While the trees are small, this tells against the yield per acre. In a general way, it may be said that an almond orchard yields as quick a return as a herd of beef steers, and at the same time the planter does not lose the use of his land. He plants other crops between the rows, but, of course, no ordinary annual crop will yield a profitable return from the price he must pay for land known to be adapted to almonds. The almond, most precious by weight of all orchard products, involves less labor, care, anxiety, expense and skill than any other, excepting, perhaps, the prune. In recent years it has never yielded the fabulous returns realized by the growers of some other fruit or nut. It never yields, as an orange orchard has, a competence for life in a single year from ten acres. Its reasonable expectations are about $100 net per acre.

The above statement is of general interest, and its wide publication in eastern journals of high standing will not do California any harm, to say the least. The writer, or his condenser, do, however, create a few wrong impressions by making as general statements facts which are no doubt true as individual experiences. For instance, it is not true that the almond is infested with no parasites. It is very subject to red spider, and in large interior orchards a summer treatment, consisting in spraying with cold water, followed immediately by blowing dry sublimed sulphur through the tree with a bellows, is found necessary. Fortunately, it is very cheap and very effective.

Sulphuring, the writer says, *if done well*, only bleaches the shell. That is true, but it would have been just as well to add that careless or excessive sulphuring attacks the kernel to such an extent that it becomes unmarketable.

The article would have more truly covered the case if recognition had been given to other almond varieties of local origin which now constitute perhaps nine-tenths of the almond plantations of the State. The variety mentioned is hardly a leading variety, taking the whole State into account.

The writer in *Garden and Forest* seems to emphasize a statement that only a few spots in California can successfully produce the almond. That was the impression ten or twelve years ago, but since the value of the Hatch seedlings and other good local varieties have been demonstrated the almond area has been notably extended.—ED. PRESS.

Our Fruit Products at the Pure Food Exhibition.

The California State Horticultural Society, at its last meeting, decided to make an exhibition of dried fruits, etc., at the Manufacturers', Dealers' and Consumers' Food Exposition, to be held at Madison Square Garden, New York, which opens in October next.

The objects of the exposition are to promote the manufacture, sale and consumption of pure food products; to establish close cordial and confidential relations between the manufacturer, distributer and consumer, and to enlighten and educate the public as to the importance of using the best quality of food. It is not intended to establish a food inspection or analysis, but simply to stimulate the production of higher grades of food products by appeals to the public, who, we believe, are judge and jury in such matters.

Madison Square Garden is the largest and handsomest structure of the kind on the American continent, occupying the entire block fronting on Madison Square Avenue and in the center of the fashionable and populous section of New York.

The advantage to be derived by an exhibition of our fruit products is, to establish in the largest consuming market and distributing center of the continent, the fact of the absolute purity and superiority of California products. The suspicion of adulteration attaches, unfortunately, to our food products. Adulteration is not practiced in California, but that fact must become known, and once known, the market for all that we may produce will be permanently established. The exposition at Madison Square offers us this opportunity. It is the sheerest folly not to take advantage of it.

Those desiring to be represented are requested at once to let us know what they wish to exhibit and in what manner put up. The expense to be incurred will be the cost of space and care of the exhibit while on exhibition, which will be nominal, this expense to be met by assessment, each exhibitor paying his pro rata. Freight charges to be paid by the exhibitor. B. M. LELONG, Chairman, E. W. MASLIN, Secretary, Committee, 220 Sutter Street, San Francisco.

A Pomona Man on Prunes.

E. C. Thurman of Pomona gives the *Progress* his experience in prune-growing and curing as follows:

First, the trees must be grafted or budded on plum stock, and be one or two years old—I prefer one-year-old trees. They must be planted about 25 feet apart, so it will take 100 trees per acre. Good trees ought to be had for 20 cents apiece, or by the thousand for 15 cents. The holes must be dug from two to three feet square, according to quality of the soil.

The fourth season after planting, and even the third if your trees have been well taken care of, you will obtain about ten pounds of prunes to each tree, enough to initiate yourself in the drying business. The fifth year you will get about 60 pounds to each tree; the sixth year 120 pounds or more to the tree. After that, your trees are in full-bearing, producing, according to location and care, from 150 to 300 pounds to the tree.

Do not pick the prunes by hand, as they do not ripen all at the same time, but in about three weeks. Begin to shake your trees toward the first of August, then every week after, and on the fourth time pick them clean.

Now for the drying. The only apparatus needed is an iron kettle holding from 25 to 50 gallons of water. To each 20 gallons of water add one pound of the best American concentrated lye; have the water boiling, then take a wire basket of some kind—the home-made one will do best—put 20 pounds of green prunes in your basket, dip them in the boiling kettle, let them remain there about one minute, or till you perceive that the skin of your prunes are cracked all over. Then take them out and lay them on a tray, and in a week or ten days, according to the heat of the sun, your prunes will be dried enough to put them loose in any kind of boxes holding 50 to 75 pounds. The trays can be made very cheaply (about ten cents each) with four sawed redwood shakes three feet long, nailed on a very primitive frame by anybody who ever used a saw and hammer.

Now, when your prunes are all dried and you want to give them the finishing gloss for market, do as follows: Fill your kettle again with water, but this time no lye is wanted, and when the water is boiling steep your prunes in it for about a minute, till every prune is quite hot, then expose them to the sun for that day, and the next morning you can pack them in boxes or sacks as you prefer. This last steeping will make your prunes very clear and glossy, and will kill every insect and destroy their eggs effectually.

If you follow the above directions you will turn out an article equal to the best in the market, and will obtain the best price. Let us now figure the cost and profit:

COST.

Ten acres of land at $150 per acre	$1,500
One thousand trees at 20 cents each	200
Plowing the land	25
Digging the holes	50
Planting the trees	25
Cultivating	25
Second, third and fourth years, $50 each for plowing and cultivating	150
Taxes for four years	75
Four years' interest, compound at 10 per cent	830
Total at end of four years	$2,880

PROFIT.

The fifth year you will have 1,000 trees, bearing at least 60 pounds each—or 30 tons—equal to 10 pounds of dried prunes, worth 10 cents per pound or $200 per ton	$2,000
If you deduct 10 per cent for labor, you will have a balance of $1,800 net, paying for the whole of the investment and $300 profit left.	
The sixth year you will have 60 tons of green fruit, or 20 tons of dried prunes worth	4,000
On the seventh year your trees will be in full-bearing condition, and will bear each year from 150 to 200 or even 300 pounds to the tree, and I believe I am on the safe side when I say that each tree will bring you $5 net each year or	$5,000

It does not take much perception to see that thus, on an outlay of not a dollar more than $2880, a person can have an easy income of $5000 in ten years' time. I don't know of any better and easier way of insuring a large income than this. I have made these figures with care and prudence on the basis of financial results from the profits of my own seven-acre prune orchard and from the figures given me by four of the most careful fruit growers in Pomona valley.

THE VINEYARD.

The Proposition to Distill Second-Crop Muscatels.

At the recent meeting of the State Board of Trade in San Francisco, L. C. McAfee, a member of the board, was instructed to investigate into the matter of the best method of disposing of the second and third crops of Muscatel and other raisin grapes. On the 12th inst. Mr. McAfee made the following report, which has been sent out to the different county Boards of Trade, and which will be of interest to the general public:

I wrote to different raisingrowers inquiring into the way of getting profitable prices for their raisins, and I found that they have already attempted to organize distilleries to make sweet wine, and one gentleman has already offered a building site in his vineyard for a distillery, should the distillery be located there.

I wrote to S. H. Cole of Fresno and he replied that a committee had been appointed to consider the matter and to

inquire further into the same. A convention was held at Selma for the purpose of conferring with Williams, Brown & Co. on a proposition to erect a distillery at that place, capable of handling from 5000 to 10,000 tons of second and third crop grapes. There were about 150 raisingrowers present at this convention and they agreed to furnish about 2842 tons at a cost of about $7 per ton, which would enable the distillery to go ahead.

I have consulted with two persons engaged in the wine industry, Mr. Landsberger and Mr. C. J. Wetmore. Mr. Landsberger writes me the following letter:

SAN FRANCISCO, CAL., July 12, 1892.

MR. L. C. MCAFEE:—In answer to your question, as to what use could be made of the second crop of Muscatel grapes, other than for drying purposes, allow me to say:

First—If said grapes attain sufficient sugar, say from 28 per cent to 30 per cent, as shown by Balling's Must Scale, a good, sweet Muscatel wine can therefrom be made. It is to be remembered, however, that the trade demands a wine that should be 10 to 20 per cent in alcoholic strength, showing, after alcoholization, not less than 10 per cent (but 12 per cent preferable) of sugar by aforesaid Balling's Scale. As our present laws allow only the addition of 14 per cent of alcohol free of tax, and the 5 per cent or 6 per cent more needed would have to pay the tax, thus increasing the cost of production, the profitability of making sweet Muscatel wine is doubtful.

In my estimation only a very limited amount of such wine would find a ready market. The next use that can be made of these grapes, and independent of their saccharine strength, would be for distillation into brandy. But here I must remark that only a very limited amount of such brandy could at present find a market. The only few houses that buy the article have already contracted for next year's supply. It is only very lately that the demand for Muscat brandy has sprung up. Until about one year ago it could not be sold at all. The German and English markets absolutely refused it.

A third article that could be made of it is a grape syrup. Only a very limited demand for this article is found in this market; but I verily believe that, if properly made and handled, it could be effectually introduced, not only in the eastern and western States, but also in European markets, where probably an unlimited sale could be established.

A friend of mine, Mr. Heyse, says that the Peruvians make pisco (a liquor) from these grapes, and that Leland Stanford has succeeded in making an article at his Vina vineyard in every respect equal to the best Peruvian pisco. Yours respectfully, I. L. LANDSBERGER.

The figures that I received from Mr. Landsberger were identically the same as those received from Mr. Wetmore, which are as follows: The brandy that could be disposed of at present price would be 100,000 gallons, which, at 35 gallons to the ton, is the product of 3000 tons of fresh grapes; 200,000 gallons sweet Muscat wine at 60 to 65 gallons of wine to the ton of grapes equals about 3000 tons of grapes. At 40 cents per gallon for the brandy the yield is equal to $14 per ton for fresh grapes. Distillers buying grapes, based upon the price for brandy, could not pay over $8 per ton for fresh grapes. At 30 cents per gallon for sweet wine the winemaker can afford to pay $12 per ton for fresh grapes. This would reduce the fresh-grape product 6000 tons.

Further, if the grapegrowers would cooperate they would give the distillers a profit.

So I think, as an experiment in the industry, we could get very little relief in the raisin market by manufacturing the second and third crops of grapes into wine and brandy. It is in the line of developing a new industry to the people, and the matter might be further investigated, and this board could not do better than attempt, in every way possible, to favor, as much as possible, diversified interests; though I confess that the outlook for the second and third crops does not look encouraging.

W. Pfeffer continues his notes on training the vine in the *Wine and Spirit Review* as follows:

One of the systems of training the vine, still more or less in the experimental stage, is one I saw several years ago in the vineyard of Dr. John A. Stewart, of Santa Cruz. He plants two rows of vines close together, some twenty inches apart, or thereabout. He uses wire for support of the bearing canes. The distance the vines are planted apart in rows I do not recollect, nor do I know at present what he thinks of the plan after several years of trial; but as he is a progressive public-spirited gentleman, I trust he will some day in the near future add to our general stock of knowledge whatsoever good he derives from his way of training the vine.

The Wm. Wehner method of training the vine consists of planting the vines in such a way that four vines will always form an independent square, or, in other words, on a rectangular plot of land containing nine square feet he plants on each corner one vine. The distance between two such rectangular plots can be eight or seven feet or even six feet according to the planters' fancy, and whether he wishes to do the plowing and cultivating of the vineyard with one horse, or, in a more expeditious way, with two horses abreast. To further explain the very ingenious idea of Mr. Wehner, I will state while he thus plants the vines three feet apart, each vine, when of a long pruning variety, is intended to serve as a support of the long bearing cane from the neighboring vine, and thus do away with wire, slats, stakes or whatever is used for support of the vines. More than this, a vineyard planted in this way on low land presents no obstacle for one horse to pass crossways even through the rectangular plots shortly after the pruning of the vines, and we thus have a system that combines all the principal advantages, and in the words of Mr. Wehner "the vines can be plowed all around; vines close together give all the shade needed and no extra expense for stakes, wires, etc.

But to those growers whose lot is cast in the mountains, either by accident or design, for the working out of viticultural problems, no system however advantageous it may be for level land vineyards, will be of any avail to them, and they must, by force of neccesity, work out a system suitable to their surroundings.

THE shipments from San Diego to Mazatlan are increasing. The last steamer took down the largest consignment yet made, consisting of fruits, cheese, pickles, canned goods, potatoes and vegetables. The fruits embrace peaches, apricots, apples and other fruits produced in the vicinity. The returning cargo will consist of tropical fruits for the San Diego market.

THE STOCK YARD.

American Short-Horn Herd Book.

We have to thank the Short-Horn Breeder's Association for the receipt of the 37th volume, a book of 1116 pages, containing the pedigrees of 4644 bulls and 8951 cows, with the request from Secretary Pickrell that we give such notice of the book through this paper, as we may feel justified in doing; also of the circular, hereafter referred to.

This is the first volume of the work that we have received at this office direct from the Association; whether it has been sent us on account of the correspondence that has appeared in our columns at different times in regard to the premiums offered for milking Shorthorns at the State Fair, or from the supposition that the interests in the breed are being considerably extended in this State, we cannot say.

We are sorry to say, however, that the record does not confirm the correctness of the latter view, as there are only 11 owners of cows having entries, residents of this State, as compared with 25 in Oregon and seven in Washington. Besides these, there are several owners of one or more bulls in each of the three States, which is an all important factor in the general improvement of the cattle of the country in which they are used.

The American Short-Horn Herd Book was first started under very discouraging circumstances by the late Lewis F. Allen of Buffalo, N. Y., who published the first volume in 1846, at his own private expense, not being able to induce any breeder to join him in the enterprise. It contains the pedigrees of about 600 Shorthorns, 190 of which are bulls.

The second volume, containing about 3000 pedigrees, was not published till September, 1855, or nine years after the first volume appeared, so tardy were the breeders of this country in appreciating the value of such a record.

The third volume was published in 1857 and the fourth in 1859. In the third volume we find recorded some of the first Shorthorns that came to California.

It was about this time that the enterprise began to pay. The cattle trade having recovered from a long period of depression, the entries were much more numerous, the bull numbers in the fourth volume running up to 3622.

Mr. Strafford, the editor and owner of the English Herd Book, had by this time closed that work against the pedigrees of American cattle, unless they were imported into England. This fact, in a measure, undoubtedly helped on with the publication of the American Herd Book, the only one in which from that time forward, the breeders of this country could record the pedigrees of their Shorthorns.

Too much credit cannot be given to Mr. Allen for his perseverance in continuing the work under pecuniary losses and most discouraging circumstances, and we often wonder where would have been the man who would have done likewise and taken up the laborious task if he had laid it down on the completion of the first volume.

The circumstance, had it taken place, might have hastened the formation of an association such as eventually purchased the work from him whose last work was done on the 24th volume, published in 1883.

The American Short-Horn Breeders' Association was incorporated under the laws of the State of Illinois, April 26, 1882, since which time it has published 13 large volumes, the 25th to 37th volumes, inclusive, with generally good satisfaction to breeders. As a matter of course where there is a Board of Directors there will be differences of opinion in regard to the management and rules of entry.

The pedigrees of heifers have always been admitted to record in the American Herd Book, differing in this respect from the English H. B., which admits no females till they have produced a living calf, excepting as produce under the pedigree of its dam.

Many breeders advocate the adoption of that rule for the A. H. B., but as yet they appear to be in the minority. With this minority we agree and cannot see the use of entering several thousand pedigrees in each volume before knowing whether the animals to which they belong will be useful as breeders of pedigree cattle or not.

Another thing on which there is difference of opinion is the abbreviation of all pedigrees, as they have been for the last seven volumes, merely giving sire and dam, with reference to volume in which she is entered, with the addition—tracing to imported—(for example) *Goodness*, by Orontes (4623). Or take an imported cow, calved in 1891, after the gr. d. and her sire, we have, "etc, as in Lavender 33d, vol. 26, p. 792." In another pedigree we find reference to a dam recorded in the 12th volume.

We are fully aware that it is necessary to have all the volumes of the Herd Book in order to make a proper study and get a fair understanding of pedigrees in general, but there are many breeders who have not got them and for various reasons have no intention of being possessed of them all. These should be considered and be given the privilege of being able to trace the pedigrees of their cattle to the foundation by referring to some full pedigree in the same volume, this principally with reference to beginners, who sometimes buy the volumes in which their own cattle are recorded, and no other.

With old breeders who have made a life long study of pedigrees and the principles of breeding involved therein, it is different, yet we hold that the manner of abbreviation is unfair to them, chiefly in making more trouble in searching out full pedigrees.

A breeder who is acquainted with the breeding of his own cattle, as every breeder ought to be, does not care for a full reference in the same volume for his own sake, as he has no need to go to the herd book for a full pedigree; he will have that in his own private record, if nowhere else.

It is in wanting to find out how others, some of the most successful breeders perhaps, have bred and succeeded that one wants to search the herd books, and in so doing it is unnecessary trouble to have to refer to several volumes to get at the body of the pedigree, as it were, when one ought to be able to refer to all, on the cow's side, in one volume. Not to be able to do this is bad enough, and if the system is continued for several more volumes, there will be few who will face the task of what is called analyzing a pedigree, and search out the breeding of every bull in the pedigree of every other bull to the foundation.

That is what one has to do when he wants to introduce new blood into his herd by the purchase of a bull. He should know the pedigree from top to bottom, and breeders who pay for having the pedigrees of their cattle recorded are entitled to every reasonable facility that can be given to aid them in acquiring that knowledge.

By abbreviating the pedigrees, many more can be got into a volume, consequently making it much more profitable, in a money point of view, to the association, enabling it to give away some thousands of dollars yearly in premiums for the benefit and encouragement of Shorthorn breeders to improve the breed for the various purposes for which it is used.

Regarding all that pertains to the management of the work, we consider it well and expeditiously done, with very few mistakes for so large a volume. There is an index of breeders and owners, covering about 40 pages, at the beginning of the book; then follows 996 pages of pedigrees, the bulls being placed in alphabetical order and all of each owner's cows under his own name. The females are indexed at the end of the volume, with the name of the sire added—thus, Dora by Grover—the addition being a great help in finding the pedigree of a cow through reference to the index.

THE CIRCULAR

Above mentioned contains a list of the herd books for sale, the price of which has been reduced 50 per cent on all volumes up to volume 30, excepting that volumes 1, 9, 10, 11 and 12 are out of print.

The reduction puts the price of all the volumes (excepting the five out of print) and the E. H. B. Reprint of Bulls, to $60 for the lot, less than $2 per volume all round. This offer is extended to December 31, 1892, and all who wish to become owners of as complete a set as can now be got should avail themselves of this opportunity and write J. H. Pickrell, secretary, Montauk block, Chicago, for particulars.

The association has agreed to make an entry of 25 Shorthorn cows for the dairy school at the Columbian Exposition, and offers very liberal additions to the published list of premiums in both dairy and beef classes. The amount offered is more than $5000, which includes four premiums added in the Grand Sweepstakes class, if won by a Shorthorn, of $500, $300. $200 and $100.

At the Chicago Fat Stock Show, to be held in November next, there are about $1000 offered in additional premiums by the association for competing Shorthorns, so that there is every inducement for those to exhibit who feel inclined to do so.

THE DAIRY.

Dairying in Kern County.

One of the most important and at the same time least noted industries of Kern county, says the Kern County *Echo*, is the dairy business. From the fact that the business is not run upon any systematic plan, and that it is generally carried on in connection with general farming or stock raising, it is difficult to give many exact figures as to the profits of the business. All estimates of the exact, direct proceeds must fall short because of the many indirect items of profit through other lines of farming with which it is connected.

Until a few years ago, the dairy business of the county was almost entirely in the hands of a corporation which with the proverbial soullessness of corporations effectually squelched the small dairies. Since the breaking up of the large dairy ranches into small holdings, the dairy business here has improved rapidly and in its present condition, and future outlook is one of the most promising industries of the county. In the past, the large ranges and the demand for stock cattle induced the dairies to make the calves a primary object in their work. Instead of the calf getting what was left after the dairyman was done, the order was reversed, and the dairyman took the leavings. The inevitable tendency of such a policy was toward beef rather than milk, and the equally inevitable result of such a tendency was a disaster to the dairy products.

Some of the men who we still count as dairymen are in reality only breeding fine bulls for the stockmen and count their dairy produce simply as an item of that business. So much is the dairy, as a distinct feature, in its infancy here that, we regret to note, there are scarcely any of the economical, modern devices for dairying here. Neither has the beef tendency in the cow been overcome. In every dairy in the county there are so many beef cows that the milk producer has scarcely a ghost of a chance. But in spite of all this the fine opportunities for green feed almost the entire year, the remarkably equable temperature and the large and constantly increasing home demand for dairy products all combine to make the business profitable to those already engaged in it, and to offer good inducements to others to embark in it.

During the year ending Dec. 30 1891 there was exported from Kern county, 149,615 pounds of cheese. Much of the whey and milk went into hogs, of which were shipped 27 car loads or 1,960 head. The butter, of which a very large amount was made, was almost entirely consumed by the home trade at an average price of 30 cents per pound while the home consumption of cheese was fully equal to half of the exports of that product, and of hogs, was equal to, or exceeded the exports.

Among the most prominent of Kern county butter and

cheese producers, is Frank Corsett, of the Old river district. He has a better class of dairy cows than the average and being a progressive man, is selecting and breeding with a view to improving the dairy qualities of his stock. J. S. Ellis makes considerable cheese and butter, but his cattle bear a wide reputation for their beef qualities, so that the raising of fine bulls for stock breeders is his principal object. Both of these men find hogs a very important adjunct of their dairy work and have some thoroughbred stock in that line.

W. Canfield has been in the dairy business here for years, and is a heavy producer, especially of cheese. His chief difficulty has been the lack of a convenient shipping point. The station of Canfield to be established near him on the new S. P. branch railroad will be a great convenience to him as well as to many of his neighbors who are in the same business. Chris Mattley is one of the best informed men in the dairy work in the county and everything that he has to say on the subject may be considered authoritative. He keeps a careful record of everything produced, the average of his cows, the prices received, and, in fact, everything pertaining to his work is carefully noted in true business style. He milks on an average 60 cows. During 1891 he made both butter and cheese, but this year has made butter alone. His sales of butter during the first six months of the year were over $2000. His cows, on alfalfa and hay alone, no other feed being used, average $50 per year apiece. This is a better average than many dairies can show with a liberal use of mill or other feed. Mr. Mattley has recently ordered a cream separator, which will greatly facilitate the labor of handling the milk as well as increase the average yield of butter. He is well pleased with the prospects for the dairy interests and thinks that there is room for a great increase in production. P. Corti, Herman Piper and John Batiste are men bred to the work and are constantly increasing their stock both in quantity and quality. There are two milk dairies that supply Bakersfield with milk. Mr. Klipstine milks from 100 to 150 cows, and besides his sales of milk, produces a large quantity of butter by the cream separator process.

The milk dairy of Mrs. Mastellar is a fine illustration of what can be done by strict attention to work. Starting less than two years ago with two or three cows and a can carried around among her neighbors she has built up a good business employing considerable labor and paying a good income.

An Instance of Successful Dairying.

Frank S. Chapin writes as follows for the *Record-Union:* After having seen so many who think there are no chances left in California for a poor man, the writer was greatly pleased the other day in Sierra valley to notice a marked instance of successful accumulation at farming.

Ten years since a young man came to the valley without means and began work on a farm. It was soon discovered that he had no time for anything else and his services commanded an extra price. As fast as he earned a hundred dollars he loaned it out, and at the end of four years his wages and the interest they had earned amounted to $2000. In the meantime he had established so good a name that he was able to take advantage of an excellent opportunity to buy a fine dairy ranch on reasonable terms. His mother had taught him the secret of making fine butter of good keeping qualities, and he was able to get favorable contracts from large consumers. When his own supply was short he filled some of these with butter bought of his neighbors, whose make was not so uniformly good as to enable them to secure contracts on their own account.

Some time since he has put in an engine and separator, and says that he now makes ten pounds of butter from the milk that formerly made seven. As he was always careful in his methods, I do not think this statement was made from a careful comparison of results, but was intended to convey the idea that there was a great gain. His next move will be to purchase a foundation herd from some family of Shorthorns noted as producers of butter. As he already has more personal property than enough to pay off all the indebtedness on a ranch worth easily $15,000, the young man is in a good position to make a wise investment of that kind.

His success was not because he had a better chance than others or more natural capacity. I saw one ranch of 920 acres, with fair buildings and fences, offered at $5000. It was less than Government price for the land, with value of improvements added. It needed someone with the health and capital to bring more of the land under cultivation, and to bring in a ditch of water to irrigate alfalfa. It is easily capable of being made to pay a good interest on $25,000. Nor is this the only similar chance. Again there are hundreds of just as capable men as our friend who has succeeded so well, who have worked hard most of the time for the past ten years, earned a great deal of money and are no better off than they were then. This man had self-respect and a desire for the esteem of others, and had neither time nor money to waste.

With accumulated capital, established credit and business experience, he is in position to make the next $50,000 easier than he has made the first $15,000.

The Field.

Mountain Hay Handling.

Frank S. Chapin writes to the *Record-Union* concerning his observations in the mountain counties of northeastern California as follows: Traveling through the mountains for some weeks, where hay is the principal crop, my attention has been called to the many devices for stacking and storing away in the barns. Many styles of net are used. Some roll the load from the wagons, making a stack a little wider than the length of the wagon and rolling it by means of a long rope and windlass to the end of the stack farthest from the wagon, another rolls the load up the side of the stack. Others are used to roll the load upon a car resting on a track that carries it, as nearly as possible, to the angle of the roof. Other nets are arranged to raise the whole or a part of the load to the stack by a derrick. All these devices handle hay rapidly when everything is just right, but it is considerable trouble to prepare fixtures and sometimes hard to get and keep such men as can work them to good advantage.

To unload by one net takes a very heavy derrick and considerable tackle, while the small nets take more time to unload and to arrange for loading.

The horse fork is more generally used than any other device, and when it has six tines that are long enough to reach half way to the bottom of the load, and derrick and horse are arranged and trained to work it well, there seems to be no better way. For stacking, a very popular derrick is built like a windmill frame, mounted on runners so as to be easily moved, and having a heavy pole whose center works on a joint on top of the derrick.

Ward Bros. of Modoc have a full-grown Percheron stallion that is spending his vacation pitching hay. He starts the fork steadily, then takes a brisk trot as soon as it is free from the load. If the men will do their part as well, he puts a forkful to the top of the stack about as quick as a man would, and easily disposes of a load in five minutes.

Those who build the wagon sheds and stables at the sides of their barns high enough to take a load of hay and arrange for forking into the barn from the side of the mow, can unload in about the same time. When they elevate to the ridge and run it along a track it takes more time, in proportion to length of barn—generally 10 to 15 minutes.

Those who put up hay for least labor do not load wagons at all, but come to the stack with 1000 to 1500 pounds upon a heavy rake, called a buck, and either elevate it by machinery from the side of the stack or slide it up the end upon an incline.

Farmers are using more care every year to guard against the great loss all around the outside of the stack, caused by rain and sunshine. With derricks they are building stacks as high as 40 feet, and one often sees stacks upward of 100 feet long. In Honey Lake valley the best farmers cover with lumber, generally fencing, which is used for several years and finally made into fence.

I can see no good reason why heavy paper treated with paraffine, matthine, or some similar preparation, and kept in place by cleats, to cover a stack in sections, would not be a very cheap and efficient way of protecting hay from loss. Good barns pay a large interest on cost in saving on quality of the hay they store, but in this new country, with its many uses for money, not many feel that they can spare the means to build.

Labor-Saving Devices for Beetgrowers.

The exigencies of the sugar beet product at Chino are stimulating local inventive genius, and the *Champion* thus alludes to it:

Since the beet harvest of last year, the subject of pulling and topping beets economically by machine has occupied a number of persons in Chino. It has been believed that some implement could be constructed by which the work could be done much more rapidly, easily and economically than by the old method of plowing with a plowshare, pulling and topping by hand. Among very large beets, this method left a large percentage of the beets in the ground, as all below the depth at which the plow is run cannot be gathered.

W. K. Gird has invented and made a machine designed to plow out, elevate and top the beets. Its mechanism is very ingenious and calculated to deliver the beets in prime shape. It is now awaiting some corrections and improvements.

H. B. Martin has made an implement to pull beets, the simplicity of the construction of which is a big item in its favor. It will undoubtedly be a success, when Mr. Martin's idea is completely wrought out in it. He is also working upon a topping machine.

But Mr. T. F. White has, we believe, the honor of inventing, manufacturing and first successfully operating a machine which pulls the beets and lays them regularly and in good condition on the top of the ground. We had the pleasure a few days ago of observing this machine making a trial in the fields, and it certainly appeared to be capable of doing all that was claimed for it. It consists of cultivator trucks with beams extending forward to a gauge wheel. To this beam is attached a series of three pairs of rods or prongs, pointed at the lower or anterior end, and retreating on an incline. The points of the first pair are about four inches apart, or wide enough to admit of the larger beets passing between them. As they recede they approach each other. The second pair is closer together, designed to pick up the smaller beets which pass entirely through the first pair. The whole set can be raised or lowered in the ground at will by a pair of levers. When working, the beets are caught between the prongs, and by the approach of the rods together and, the resistance of the soil, are raised up the incline until they are dropped on the surface of the ground. The implement picks up the very smallest beets, as well as the large ones, and lays them in a row with the tops in the direction in which the machine is going. This leaves them in a very convenient position for the toppers to pick up and top. We venture to say that a man can top at least 75 per cent a day more after this machine than after a plow. Then a great utility of the machine is that it saves the entire beet, some having been pulled that were fully 25 inches long. Mr. White has filed a caveat on the implement, and will apply for a patent as soon as he gets the details all arranged satisfactorily. The first trials were so satisfactory to Mr. Gird and Mr. Shone that Mr. Gird at once ordered two of them for his use. We hope Mr. White will realize well from this valuable invention. It will save thousands of dollars on the Chino ranch alone, and will undoubtedly be introduced wherever beets are raised. Mr. White has also under way a topping machine.

Fruit Preservation.

Large Scale Apricot Drying.

A communication from Newhall was received by the Los Angeles *Times*, embodying a complaint against Los Angeles employment agents, charging them with resorting to misrepresentation in inducing people to go thither to engage in the work of cutting apricots. The letter stated that the agents promised that apricot cutters could make $2.50 a day at the Newhall drying yards, assuring applicants that they would be paid at the rate of 25 cents per 100 pounds, while the fact is that the price is 8 and 10 cents a box, weighing 40, 50 and 60 and even 70 pounds. The correspondent in addition complained of long hours, poor accomodations and other unpleasant experiences for which he and many others hold the employment agents responsible.

A *Times* reporter was detailed to visit Newhall, which is 28 miles north of Los Angeles, to investigate the complaint and look into the real facts. He found the little village, usually so quiet, transformed into an extremely lively place, the two large apricot-drying establishments running at full blast, employing upward of 1000 persons, all told, American, Spanish, Chinese, Italian, French and other nationalities being represented in characteristic groups in the long, low sheds which shelter from the sun's rays, the hundreds who are busily, and more or less deftly cutting the apricots and spreading them upon the great drying trays.

Three or four carloads of fruit are daily handled by each of the two establishments, the apricots being unloaded in their shipping boxes upon a tramcar which travels the length of the sheds, distributing them to the cutters, who are seated about the frames upon which rest large, shallow wooden trays. On these trays the halved apricots are spread with the inner sides upward. The trays, when filled, are stacked upon another tramcar to be hauled to the sulphuring rooms where the fruit is subjected to the strong fumes of burning brimstone, after which the trays, still in stacks upon the cars, are wheeled away, out into the drying-yard, and laid upon the smooth ground to undergo the desiccating effect of hot sunshine for two succeeding days. Acres of ground are thus covered by the trays of apricots, which, as a result of the bleaching sulphur bath, retain their bright color despite the hotness of the sun. When dried sufficiently the fruit is collected again in boxes, hauled to a warehouse and there placed in sacks for shipment to Eastern markets.

To those whose transactions in apricots have never exceeded an occasional purchase by the dozen or pound at a city fruitstand, the reckless abandon shown in handling the vast quantities at the drying works appears almost sinful. Some fruit is wasted, a great deal is eaten by the cutters and some of it is condemned. Then, when the dried fruit is heaped in great piles preparatory to the bagging, the way the men walk roughshod upon the heaps and playfully pelt each other with the succulent handfuls, convinces one that the housewife's penchant for washing dried fruit before stewing, is not out of place.

The reporter interviewed the superintendent, several men hired by the day and a number of cutters, verifying the truth of the charges made by the correspondent. To a query regarding the price paid to the latter, the superintendent said:

"We pay 8 and 10 cents per box for cutting—8 cents for 40-pound and 10 cents for 50 pound boxes. Yes, the boxes frequently run over weight, 10 pounds or so, but we aim to average them up. Each cutter, as you see, has a large tag attached to him or her, and as fast as one empties a box, a man takes it up and makes a punch mark in the tag. Each of these punch holes represents either 8 or 10 cents, and the wages are paid on presentation of these tags."

"How much can these cutters make in a day?" the reporter asked of another of these "bosses."

"That all depends," was the reply. "Some of them make $1, some $1.50 and some who are quite expert can make $2 or $2.50. There is a man," pointing to an idler near by, "who can make his $3 or more every day; but he is an exceptionally good cutter."

"Yes, we can make from $1 to $2 a day—sometimes," said a cutter; "but it is only when we work all day and all night. You see, while there is fruit on hand we must not stop work until it is all cleared up. Yesterday, for instance, everybody went on at 6 o'clock in the morning, and some of them worked until 4 o'clock this morning, slept an hour or two and went to work again at 6."

"How long could you keep that up?" was asked.

"Well, that was a little longer day than usual, but we work nearly every night to 10 or 11 o'clock."

"What kind of board do you get?"

"Awful. The 15-cent meals the employment agent promised us hardly fill a hollow tooth. We have to pay $5.50 a week for board and lodging, and some of the cutters are lucky if they make enough to pay expenses."

Judging from the large crowd of people who came away from Newhall on the same train that bore the reporter to Los Angeles, and their loudly expressed sentiments of disgust, more than a few cutters had given up trying to keep even with expenses. Practically all of those who went from Los Angeles complained about misrepresentations of the employment agents, and the poor inducements for labor to engage in this kind of work. They do not say anything against the fruit companies, who pay as they promise, though the wages are meager, but they bitterly denounce the agencies that induced them to go to Newhall to make money at "cutting cots."

The Home Circle.

California.

There is a land of every land of the pride,
Beloved by heaven o'er all the world beside;
—*James Montgomery.*

Where smiling spring its earliest visit paid,
And parting summer's lingering bloom delay'd.
—*Oliver Goldsmith.*

Blossoms and fruits at once the trees adorn,
With glowing blushes like the rosy morn.
—*James Thompson.*

Now golden fruits on loaded branches shine,
And grateful clusters swell with floods of wine.
—*Alexander Pope.*

A soothing calm on every breeze is borne,
And softer sings the linnet from the thorn;
—*John Leyden.*

And caught the fragrance which the sundry flowers,
Fed by the streams with soft perpetual showers.
—*William Wordsworth.*

The waving verdure rolls along the plain,
To welcome back its playful mates again.
—*James G. Percival.*

By these fair plains the mountain circle screens,
And feed the streamlets from its dark ravines.
—*Oliver W. Holmes.*

And when the moon with softer radiance gleams,
And lovelier heave the billows in her beams,
—*Robert Southey.*

Is it not lovely?—tell me where doth dwell
The power that wrought so beautiful a spell.
—*Richard H. Dana.*

J. W.

The Lilac Witch.

"It can't be as bad as that, Sophie. Must your father have 20,000 francs by the first of January?"

"Yes, Henri, or else—" her lip quivered a little—"or else the mortgage will be foreclosed, and father will lose all his land, and we shall be homeless."

"Not if I am around!" said Henri, stoutly.

Sophie looked proudly at him, and then around at the wall of the studio. What an artist Henri was!

She came to him and laying her hand gently on his shoulder, gazed sadly into his eyes and said:

"I know, Henri, I know. But then you are poor now."

"I will rise—get a picture into the Salon, make money—"

"Yes, dear, but if papa loses all his property, and besides—" and her gray eyes grew moist and she looked wistfully away.

"And besides?" repeated Henri, with anxious inquiry.

"And, besides, papa has been hinting at the marriage proposals of Jean Bertrand, an old playmate of mine, who offers to pay off all the mortgage on the day of his betrothal to me."

"To you, Sophie! You don't mean that you—that your father—"

Sophie looked down sadly at a pair of neat little feet.

"Henri, you know I love you, and that I have promised faithfully to be your wife; but think of poor papa, and think of all I owe him. Oughtn't I to be ready to make any sacrifice to save him from ruin?"

Then they both looked sadly away in silence. Suddenly Henri squeezed Sophie's hand so hard that she started violently.

"Wait, Sophie!" he exclaimed. "I've got a plan! We—you and I—can earn that twenty thousand."

"Yes, yes; how?"

"Why, you be my model, and I'll paint you."

"Oh, will you? But—but you couldn't sell a picture of *me* for twenty thousand francs."

In answer, Henri drew her before a little square mirror, hung between the two windows, and made her look at her own reflection.

"See there, Sophie! Just look at your eyes. Are they not the deepest gray, with golden lights in them? and are not your lips as red as this carmine? and just see that little pointed chin! How I could paint that! And those pink cheeks—fresh as a baby's!"

Sophie began to blush at Henri's enthusiasm, and turning from the glass, looked into his dark face, which was lit up with the glow of an almost poetic inspiration.

"And, you know," he went on, "something tells me that I shall paint you better than I ever painted anything before—that you will be my muse, my inspiration. You must wear a loosely fitting lilac—very soft lilac—robe, and you will have your hair down, hanging over your left shoulder, which will peep through your curls like a white dove in a golden cage. And you must hold a spray of lilacs in your hand and be reclining under a lilac bush, and I'll call you the Lilac Witch. Didn't you ever hear of the legend of the Lilac Witch? Grandma used to love to tell me about her. She was a very beautiful fairy, and men came around her to catch a smile from her red lips, and the man she smiled on was made bold to do high deeds; but if his heart was drawn away to another woman, in a moment she spoiled all he had done, and made a beggarly wretch of him. Besides, you know, the lilac will go so well with your complexion and hair and eyes."

And so it was planned. The sittings were daily. Sophie was a very patient model, and Henri was full of inspiration and worked with a certainty of success. He made studies of her face in all possible moods and expressions, till by culling what was most entrancing in each, he began to create an ideal. He threw the whole vigor of his poetic soul into his work, striving to get that longing, inspiring look in the large gray eyes which, mingled with an expression half of pity, half of triumph, in the rest of the face, was to make up the ideal of the Lilac Witch. He found the look of longing and inspiration in Sophie's eyes, but the pity and triumph—that divine mixture of pride in victory and sorrow for the conquered—were wanting. By his own talent, Henri created them, inspired by his love and the prize set before him

One day in December he was working away with his brush while Sophie reclined on the model's platform. He could see how tired she was. His own face showed that but for the indomitable fire in his black eyes, he would have given out long ago. But the day of foreclosing the mortgage drew on apace. Still, to-day was a happy day—Henri had a surprise for Sophie, and as he occasionally searched his palette for colors, the corners of his mouth twitched with his suppressed secret.

Sophie was just saying how Jean Bertrand kept repeating his offer to her father, and how, as the days went by and the first of January approached, her father seemed more and more inclined to accept. Henri smiled sweetly.

"Very good for M. Bertrand," he said. "But I have something to tell you—something splendid, superb," and he kissed his hand with a theatrical gesture.

"O, what is it?" exclaimed Sophie, jumping up and spoiling the folds of her carefully arranged drapery.

Henri forgave her that for the sake of the news. Then he told her how the agent of an oil magnate, just over from America, was looking all over Paris for paintings of beautiful women; how he had seen the "Lilac Witch," now nearly finished, and how he had, with an American's extravagance, offered the fabulous sum of 30,000 francs. That ended the sitting for that day, for Sophie insisted on taking Henri at once to her father, telling him the news, and making him break off all further negotiations with Jean Bertrand.

And so it was arranged. Henri was to pay off the mortgage as soon as the picture was transferred, keeping the surplus of 10,000 francs to start life with Sophie, while her father dismissed Jean Bertrand with the precautionary hint that, in case the American should fail, then he would immediately accept Bertrand's offer.

It was the evening before the great day when the picture was to be formally sold, the 30,000 francs handed over, and Henri and Sophie married. Henri was in the studio, standing before the picture. In one hand he held a lighted cigarette; in the other an acutely pointed paint brush. He was scrutinizing the face of his beloved "Lilac Witch" with a look of intense exultation Every now and then he would make an infinitesimal stroke with the brush, after which he would take a long pull at the cigarette, letting the smoke slowly exude from his mouth and nose in a manner that bespoke keen satisfaction. He was putting on what he called the last touches before he said good-night to the picture and went to call on Sophie. He looked at his watch. It was already past 9, and he had promised to be there at 8. Still, there were only a few more tiny touches needed and then he would go. He lit cigarette after cigarette, he walked up and down the room, changed the lamps and surveyed the painting from twenty different points of view. Finally, he seemed satisfied, threw down the brush, drew a sofa up in front of the easel and lay there, watching the Witch's face with a lover's rapture. His chest heaved, his eyes grew bright, the muscles round his mouth softened into an expression of supreme delight.

Suddenly he started and looked at his watch. It was 12 o'clock and he had forgotten, and Sophie had probably gone to bed, wondering why he never came. He blamed himself for being so thoughtless.

This changed the current of his thoughts, reminding him that to-morrow he married Sophie and they would always live together. A bright smile lit up his face, but it was a commonplace smile compared to his look of a few seconds ago. Yes, to-morrow Sophie would be his, and they would come and pay him 30,000 francs and take away the "Lilac Witch." Take away the "Lilac Witch?" Why, of course; he had only painted it for the sake of marrying Sophie.

Henri looked away from the picture with a dull ache at his heart. Somehow, life with Sophie, when the "Lilac Witch" was gone, did not seem so sweet as it used to in the old days when they had the first sittings. Then the picture only meant to him the portrait of his dear Sophie. Now, when he was gazing into that fair, arch face on the canvas, so triumphant and yet so pitying and tender, he never thought of its being Sophie's face at all. He seemed to see there something that was all his own and had come out of his own soul. How could he bear to part with it? But he was winning Sophie by giving it up. A horrible doubt came to him. What if after all he should love the picture better than the model? He shook his head resolutely and went to bed. All that night in his dreams that awful doubt tormented him.

On the morrow Sophie appeared before the hour of the business transaction, so as to tidy up the studio and make it look more festive. She found Henri there before the picture as usual. He had wheeled the easel up near the window and was devouring the painting with his eyes. He never so much as turned his head to greet her. He saw there, on a bank of moss, half sitting, half reclining, a beautiful woman, the image of his sweetheart, yet wearing an intangible something about the eyes and mouth—something that Henri, with feelings of misgiving, felt that Sophie had not. The wavy, light brown hair, hanging in ringlets over the bare shoulder, and the vermeil tint of the pure cheek, were simply a clever copy of Sophie's charms. But in the gray eyes was a look that seemed to tell of a great, unsatisfied longing for love—or, perhaps, victory—while the delicate, slightly curving lips had a tender, pitying expression that was strangely contradicted by the pointed chin, which bodied forth a scornful joy of triumph—perhaps the very triumph which the eyes were longing for, and whose victim the mouth pitied. The very compositeness of the face, full of contradictions, was the origin of its charm.

Henri looked long at the face, and then turned and glanced half timidly, half hopefully, at Sophie. She thought she caught his meaning and smiled back at him.

"Is it like?" she laughed.

Henri's face lost the look of hope. He turned eagerly back to the picture, looked at it a minute, then turned away with a sigh. Sophie came to him, and looking over his shoulder at the lovely reflection of herself, asked him why he sighed. He answered:

"Ah, Sophie, you cannot understand, you cannot know the feeling of adoration which an artist has for something into which he has poured his whole soul. This is my masterpiece. I shall never do anything as good, as rich, as expansive again—no, never! All the strength, all the purity, all the poetry, of my inmost soul are embodied in that one painting, and now—now I must part with it—must say good-by forever to what has been meat and drink to me for months past. You cannot know what it has come to mean to me—how, like Pygmalion, I have worshipped it as I created it It is more than a portrait. It is an ideal in which I have lived for months. O, where—where shall I find anything to take its place?"

And Henri, kneeling before the picture, spread out his hands in supplication. Sophie knelt beside him, and gently passing one arm over his shoulder, whispered softly to him, as if they already knelt before the altar:

"Here, Henri, here I am! Have you not me? Did you not paint that picture to marry me, and now it's done, are we not to be married, and you are to have me always?"

She paused. Henri slowly looked around and gazed long and steadily, with a blank, searching look, into her sweet, pale face. Then he turned toward the "Lilac Witch," shuddered and sorrowfully shook his head He noticed that in a spot near the edge of the canvas the varnish had worn a little rough. He got up from his knees, and pushing aside a curtain, went into a side room to get a pot of varnish.

Sophie remained motionless, kneeling before the picture, her bosom heaving, her eyes flashing, her hands clutching convulsively at her dress. She repeated his last words—"Where shall I find anything to take its place?"

Jealousy, cruel as the grave, jealousy of her own idealized self, jealousy of the image of her own person reflected in the artist's imagination, was taking hold of her. O, how she hated the picture that had stolen her only possession, had cheated her of Henri's love! She arose and looked savagely at the lovely "Lilac Witch." Then, glancing wildly around the room for a weapon, she spied on a little table Henri's mixing-knife. It was of steel and quite sharp. She ran to it, seized it, and then coming up so close that her hot breath made the canvas moist, she hissed:

"There, you thief, you," and with a few strokes of the knife, she cut and slashed the lovely face and tore out the gray eyes, and hacked the poor head and bosom into shreds. Then, throwing back her head, she stood upright, panting and trembling, before her disfigured rival.

At that second it seemed as if the scornful, pitying, triumphant look of the Lilac Witch had passed to her own face.

Just then came a rustle at the curtain and a rattle at the door. Henri slipped in quietly from the inner room, and Sophie's father came bustling in from the hall. The two men came forward and greeted one another cordially; then they turned toward Sophie and the picture.

With a sharp cry Henri bounded forward, and pressing his forehead against the mutilated painting, cried like a child.

Sophie looked wildly about, and staggered toward her father. He roughly led her to a chair. Then, pulling his hat down over his ears, he said hoarsely, half aloud:

"I must go and find Jean Bertrand."

Charles W. Shope in the Harvard Advocate.

That Old Parasol.

Don't throw it away, the frame is just as good as new, and a little ingenuity and a small amount of material will do wonders in making something charming out of it. Get two squares of silk mull, or, if you can't find that, a fine hernani, or almost any other really fine, handsome, thin material. There are eight ribs to the average parasol; and two squares exactly in handkerchief shape, so placed that one point comes midway of the side of the other, will just cover the parasol. Lay these squares over the frame and attach the points very lightly. If carefully done, a pin will hold them until properly arranged. Then cut a small hole in the middle of each section; through this the tip of the stick is to be passed, the circle or rim around it having been previously removed, which is easily done by taking out the little rivet that holds it to the wood. Out of the material that comes off at the sides when the squares are cut make a tiny puff. Put this around the tip and put the little rim back in place. The edges of the material may be hemmed or turned in and covered by a ruffle of lace. If desired, a lining may be put in. To do this, it is well to have a pattern taken from the cover as it originally was on the parasol.

While it is considered quite an undertaking to cover a parasol nicely, it is by no means the formidable task that many people seem to think. What is required is exceeding care and neatness and a very close attention to the minor details of the job. Once having tried the experiment, the careful needlewoman will experience little difficulty in doing a good piece of work. A bit of crepe de Chine, crepe lisse or other material costs but little, and will make a very handsome finish to any one of the score of old frames, many of them with really elegant handles, which may be found in almost any of the store-closets or wardrobes in the country, and which are, as a general thing, thrown aside as absolutely worthless.

Fine work is by no means a monopoly; and, while there is a certain handling, which may be called "style," in the putting up of these goods, the neatness which is required to do a first class job may be acquired by almost anybody. A trimming of lace, plaiting, ruching and puffing, indeed, garniture of any sort which is made of material, can readily be arranged by any lady of ingenuity; and as there is in many families a greater amount of good taste and wit than money, it is well for the wives and daughters to realize that they can, with but trifling cost, supply themselves, not only with parasols, but with many other beautiful things.

EDITOR—See here! In this story you make one of the characters ask another how the thermometer stands.

Contributor—Yes.

Editor—And then you write: "At 96 degrees," she replied in frigid tones.

THE girls are dressing more like the men every season, but we have not noticed any any of those suspenders the dear things are wearing this summer fastened with a tenpenny nail.

Beach Life at Santa Monica.

Written for the RURAL PRESS by CLARA S. BROWN.

There are several attractive seaside resorts near Los Angeles which are largely frequented during the summer season. Santa Monica has been the most prominent of these for some years, but now has a rival in the rapidly growing port of Redondo. Any one viewing the Sunday crowd at either of these places would think there could not be many people left for the other watering places, unless observation had previously shown him that crowded cars are the rule on all the seaside trains.

Santa Monica is 18 miles from Los Angeles and is connected with the city by two lines of railway, the Southern Pacific and the recently completed Santa Fe.

The S. P. line runs through the best of farming land, much of it perennially moist and green, affording pasturage for large herds of cattle and horses. It is still in large holdings and will afford many opportunities for settlement when it is divided into small portions, as the princely estates of California will be divided some day There is only one town on the Southern Pacific route; this was created by the railway company five years ago, and is called "The Palms," from the fact that the streets are bordered with palm trees. Eucalyptus and evergreen groves were planted, parks were ornamented with tropical trees and plants, handsome villas were erected, and already the valley is transformed into a sylvan dale, making a beautiful suburban residence. Midway between The Palms and the Santa Monica range of mountains, which extends at right angles from the sea, is a National Soldiers' Home, established three years ago and occupied by about 700 veterans. The large, dark-red buildings are beautifully situated, and the extensive grounds may be made to excel in loveliness those of any other similar institution in the Union, for, added to the liberal appropriation from the Government, is the most favorable climate for vegetation. The old soldiers enjoy their proximity to the ocean, and are seen on the streets of Santa Monica every day.

The breeze freshens and has a salty flavor, the long train quickens its speed after surmounting the steep grade near The Palms, and there, stretching illimitably before us, is the azure Pacific. Just as we question whether we are going to plunge into the sparkling water, the engine stops on a bluff 50 feet above the beach, the Hotel Arcadia close at our left and the town nestling amid its foliage on our right. Following the crowd, we are quickly on the beach, and here the fun begins. Some go out on the wharf to fish, others rush to the bathhouses eager for a dip in the surf, the perpetually hungry retreat to the pavilions and spread out the contents of their generous lunch baskets, children dig in the sand, and old and young establish themselves close by the restless waves and listen to their never-ending song. All along the beach are tents and rustic cottages occupied by campers, who lease the ground with water and other conveniences. The heterogeneous structures are unsightly, but they condense within their close compass a freedom of enjoyment that is more highly prized by many persons than the most luxurious quarters would be with their attendant limitations. During the months of June, July, August and September, the beach is lively with this resident population, aside from the numerous daily visitors, and many amusing incidents occur. Santa Monica has two distinct phases of life—the fashionable and unconventional—and the latter seems a part of the very sands of the beach. One longs for a kodak as the impossibility of describing the many ludicrous scenes with a pen is apparent. There is no lawlessness, only an abandonment to innocent and healthful sport which attacks paterfamilias as well as his young hopefuls, the worthy matrons and gay young girls. The rollers dash in with considerable force, except at low tide, and bathing is exhilarating. There are strong ropes for the timid and weak, but swimmers fearlessly breast the advancing waves as they rear themselves preparatory to their plunge upon the beach, breaking into a sea of foam. Hot salt water baths may be had, and there are still-water tanks provided with trapezes and springboards for those who do not enjoy the surf. Besides the beach sports, there are free concerts on the shady esplanade which is the pride of Santa Monica. The Sunday throng attendant upon them is thoroughly cosmopolitan. Good-natured Germans talk volubly beside dark-skinned Mexicans or Italians; the lively French elbow England's complacent sons and daughters; Swedes and Norwegians mix with natives of Southern climes; the rubicund Irishman and the "colored gemman" are there; representatives from every State and Territory in the Union may be seen; gray-haired men and little children, hard workers, sporting men, music lovers, fun lovers, and a goodly sprinkling of blue-coated, crippled inmates of the Soldiers' Home. It is Sunday; these people have forsaken the customs that send men churchward; the scene is to some minds a desecration of the day, yet this motley crowd is an orderly one; there is no hint of indecency within it. Very little drunkenness is seen, and a woman without escort is perfectly free from annoyance. Often there are balloon ascensions and parachute descents. In the days of "the boom," when lawless characters from all quarters were attracted to southern California, "sure thing" gamblers infested Santa Monica, but nothing of the kind is visible now. Standing on the bluff and looking seaward, one is struck with the beauty of the curving shore line as it runs out to the extremity of Point Dunie on one hand and beyond Redondo to Point Vincent on the other. The Sierra Santa Monica jut boldly into the sea on Point Dunie, and when the sun sets behind their rugged outlines, a picture is formed worthy of the most noted artist's brush. I once heard a famous writer say that it was the finest view of the kind that he had ever beheld, yet he had traveled in many lands. Fashion also has many devotees here. At the hotel on the verge of the bluff, or at the Casino on the outskirts of the town, one may lead a very different life from that of the beach campers and picnickers. Brilliant balls are given, tennis, polo and horseback riding are practiced. The annual tennis tournaments of southern California take place at the Casino, and the State National Guard has more than once held its encampment at this resort. There are beautiful shaded canyons in the mountains, two miles distant, which attract many visitors; so also does the flourishing ostrich farm near by. The town is situated on a plateau above the bluff, which is in some places 100 feet high. Numerous pretty flower gardens, green lawns and spreading shade trees show that the ocean breezes are not too severe for abundant plant growth, while they temper the atmosphere to a delightfully equable degree summer and winter. During the remarkably long hot spell of last year, the mercury never went higher than 78° at Santa Monica. The place is well patronized during the winter, as it is never too cold for comfort, and there is more or less sea-bathing the year round. The permanent population of the town is about 1500. U. S. Senator John P. Jones of Nevada has an elegant residence on Ocean avenue, which is occupied much of the time by his family. Fanny Davenport, the well-known actress, has a pretty cottage overlooking the sea. The Southern Pacific Railway Company is now building one of the longest wharves in the world near Point Dunie, intending to create a deep-sea harbor that will be protected from storms. The wharf is to extend diagonally across the bay, forming a breakwater, and will be about a mile and a quarter long. It is expected that Santa Monica will become a place of commercial importance after this enterprise is completed; but, independent of shipping business, the town will always have its beach and climate and be one of the most famous watering places of the Pacific coast.

A LITTLE eight-year-old Irish boy in one of our public schools was reproved by his teacher for some mischief. He was about to deny his fault, when she said:

"I saw you, Jerry."

"Yes," he replied, as quick as a flash. "I tells them there an't much yous don't see wid them purty black eyes of yourn."

That was the soft answer that turned away wrath.

"BILLINGS got his pension yet?"

"I didn't know Billings was entitled to a pension."

"He thinks he is, any way. He claims to have contracted a chronic case of that tired feeling from reading war articles in the magazines."

A CORRESPONDENT writes:

Your joke on the summer girl going for the rain beau is good, but as usual in such cases, isn't she looking for a pot of money?

For further particulars, inquire of the summer girl.

"YOU ortn't to put them pieces o' money in yer mouth, Swipsey," said the newsboy.

"Why not," demanded the bootblack.

"Coz it ain't manly. It makes yer look like a woman ridin' on a street car."

BILLY the beau—Anything new in engagement rings?

Jeweler—Yes; our new "Seaside" plated goods are cheap, and are warranted to outwear any summer-resort engagement.

YOUNG FOLKS' COLUMN.

Pittypat and Tippytoe.

All day long they come and go,
Pittypat and Tippytoe;
Footprints up and down the hall,
Playthings scattered on the floor,
Finger marks along the wall,
Telltale streaks upon the door—
By these presents you shall know
Pittypat and Tippytoe.

How they riot at their play!
And a dozen times a day
In they troop, demanding bread,
Only buttered bread will do,
And that butter must be spread
Inches thick with sugar, too!
Never yet have I said "No,
Pittypat and Tippytoe."

Sometimes there are griefs to soothe
Sometimes ruffled brows to smooth;
For I much regret to say,
Tippytoe and Pittypat
Sometimes interrupt their play
With an internecine spat.
Fie! oh, fie! to quarrel so
Pittypat and Tippytoe!

Oh, the thousand wearying things
Every day recurrent brings!
Hands to scrub and hair to brush,
Search for playthings gone amiss,
Many a murmuring to hush,
Many a little bump to kiss!
Life's indeed a fleeting show,
Pittypat and Tippytoe!

And when day is at an end
There are little duds to mend;
Little frocks are strangely torn,
Little shoes great holes reveal,
Little hose, but one day worn,
Rudely yawn at toe or heel!
Who but you can work such woe,
Pittypat and Tippytoe!

But when comes this thought to me—
"Some there are that childless be!"
Stealing to their little beds,
With a love I cannot speak,
Tenderly I stroke their heads,
Fondly kiss each velvet cheek.
God help those who do not know
A Pittypat or Tippytoe!

On the floor, along the hall,
Rudely traced upon the wall,
There are proofs in every kind
Of the havoc they have wrought,
And upon my heart you'll find
Just such trade marks if you sought;
Oh, how glad I am 'tis so
Pittypat and Tippytoe!

—*Eugene Field in Mail and Express.*

The Little White Cat.

The little white cat was quite glad to see the bright sunshine; it seemed to her as though the rain had been falling for nearly a lifetime, though really it had been falling for only two weeks, such a pleasant spring rain it was.

The kitty stood in the open hall door and thought, "How sweet the air is! I will go out and have a good taste of it." So she went on to the porch and looked about.

"How the world has changed in looks since I saw it!" thought she. "The green fringe that covers the ground is much longer than it was; but why does it wiggle so? Does it wish me to play with it?"

She ran down the stone walk and patted some of the longest grass; then, half scared, she jumped on to the gate post.

"Dear, dear!" she thought, "what has happened to the trees? I never saw green frost! No, that isn't it. Are they covered with tiny green birds? How they keep moving, and never go anywhere! There's one now," and the little cat jumped from her post to catch a yellow butterfly!

The little white cat chased the butterfly for quite a distance. Then, as the pretty winged creature lighted in a tree, kitty thought, "There, it has fastened itself on a tree again."

Kitty walked on. She never had been walking alone before, and she thought it quite fine.

"Bow, wow, wow!"

Kitty looked around and there was a great black dog coming.

The little white cat ran.

The big black dog ran.

Kitty ran as fast as she could.

The big black dog ran faster than kitty. Kitty turned suddenly, and ran up a tree. When she reached the lowest branches, she stopped and clung there—such a tired, frightened little thing!

The great black dog sprang at the tree, and put his big forepaws as high as he could reach on the trunk of it. Then he barked, Bow, wow, wow! Bow, wow, wow!"

The little cat trembled. She thought that such a terrible noise might shake her down from the tree, and the dog's mouth was so large she was sure it would swallow her if she should fall.

"Hippity-hop to the barber's shop!" sang two little girls, dancing along the walk together.

Ruby had red cheeks, brown eyes and short black hair.

Alice had pale cheeks, blue eyes and long, golden curls.

"Why, Ruby," said Alice, "see that great dog! Aren't you scared? Let's run!"

"Oh, Alice, that dog wouldn't hurt us," Ruby answered.

"But see how big he is."

"Well, the larger he is the better," said Ruby. "Large dogs take care of children!"

"What's he barking at?" wondered Alice.

"There's something white in the tree," answered Ruby. "Maybe it's a rabbit."

"I do believe it's a kitty," said Alice, stepping behind a tree.

"Well," said Ruby, "I'll go and see about it, anyway."

She ran up to the dog and said: "Stop, sir, stop! You musn't bark at that little kitty, a great dog like you! I don't b'lieve you thought 'fore you did it. Go home, sir, go home!"

The dog looked at Ruby while she talked to him. Then he turned and ran off.

"Come, Alice!" said Ruby.

The girls then tried to coax the little white cat from the tree.

"Come, kitty, kitty, kitty! Come, you sweet little thing!" they called.

Suddenly Alice exclaimed: "That's Rose Hall's kitten! Don't you see the pink ribbon around its neck? Come, Daisy, nice Daisy!"

The little cat came out of the tree, down into the girl's arms when it heard its name called. How it purred! "That's to thank us," said Alice.

"Don't you think we would better take it home?" asked Ruby.

"Yes; and I'll carry it the first half of the way home, and you carry it the other half," said Alice.

"Does it always wear a pink ribbon?" inquired Ruby.

"It's this way about the ribbons," said Alice: "One day she wears a pink ribbon, and the next day Rose puts a blue one on her; then pink, then blue, you know. Well, the day she has on a pink ribbon she has the pink side of her cushion up, and when she wears her blue ribbon the blue side of her cushion is up Pink and blue sateen the cushion is. Pretty, um-m-m!"

"My!" said Ruby.

"Yes," added Alice, "and her saucer is blue and pink. Here we are, and Rose is at the gate."

"O girls, where did you find Daisy?" called Rose, running to meet them.

The girls told her all they knew of Daisy's adventures, then said, "Good-bye," and went on

Rose took kitty into the house, where she drank milk from a pink and blue saucer. Then she lay down on the pink side of her cushion, and, as she closed her eyes for a nap, she thought: "There! I have been up in one of those trees, and I didn't find out what those little green things were after all.—Carrie B. Sanborn, in Christian Register.

ELSIE, who is the youngest of the family, was entertaining me the other day. During the conversation she said: "All the folks who come to our house are so much older than I am." Giving a little sigh she continued: "There seems to be awfully few people seven years old nowadays."

ROYAL

BAKING POWDER

Absolutely Pure.

A cream of tartar baking powder Highest of all in leavening strength.—*Latest U S. Government Food Report.*

Good Health.

Exercise.

Much of the food actually digested and assimilated is not used to the fullest extent, for want of sufficient oxidization to make it yield the greatest amount of vitalizing power to the tissues of the body. Such partially unoxidized products have an irritating effect on the organs and tissues, and predispose them to disease, if they do not directly affect them with it.

Exercise has a stimulating effect on all parts of the body by inducing further oxidation in all the tissues and organs. This increased oxidation is attended by a greater demand upon the part of the system for oxygen, as indicated by the greater number, force and frequency of the respirations.

During exercise the heart beats faster, and forces more blood through the lungs to all parts of the body, bearing in its little blood cells the precious life-giving factor, oxygen. These little cells, one constituent of which, *hæmoglobin*, has the wonderful faculty of quickly loading and unloading itself with oxygen—thus act as direct aids to the process of oxidation in the tissues and organs.

It is the combining of oxygen with unoxidized products in the blood that gives to each individual cell its possibility of sustaining life. Any process which increases the oxygen supplied to all parts of the body tends to strengthen the life in each individual cell, and to give it more power to resist disease.

Exercise, of all factors, does this most effectively; and besides actually producing in each individual cell a greater vitality, it gives a favorable opportunity for the waste products of the tissue to be thrown off rapidly. But thus causing a further oxidizing of certain matter in the blood, it conduces in a double sense to life and health.

Habitual outdoor exercise, with suitable protection from extremes of weather, is the most effectual means of prolonging life to old age.

In this age of rush and hurry, when time is too precious to use for systematic exercise, and when the cultivation of the brain too often debars the remainder of the body from a complete development, it is not to be wondered at that the body succumbs to diseases which overtake it in its prime, because it has not the vitality to resist their inroads.

Our legal authorities would confer countless blessings upon "millions yet unborn" if they would pay more attention to increasing the number of public parks and places conducive to indulgence in outdoor sports.—Youths' Companion.

Tooth Culture.

In a capital address on "tooth culture," delivered at the annual meeting of the Eastern Counties Branch of the British Dental Association, and printed in *Lancet*, Sir James Crichton-Browne referred to a change which has taken place in bread, as one of the causes of the increase of dental caries. So far as England is concerned, this is essentially an age of white bread and fine flour, and it is an age therefore in which we are no longer partaking, to anything like the same amount that our ancestors did, of the bran or husky parts of wheat, and so are deprived to a large degree of a chemical element which they contain—namely, fluorine. The late Dr. George Wilson showed that fluorine is more widely distributed in nature than was before his time supposed, but still, as he pointed out, it is but sparingly present where it does occur and the only channels by which it can apparently find its way into the animal economy are through the siliceous stems of grasses and outer husks of grain, in which it exists in comparative abundance. Analysis has proved that the enamel of the teeth contains more fluorine, in the form of fluoride of calcium, than any other part of the body, and fluorine might, indeed, be regarded as the characteristic chemical constituent of this structure, the hardest of all animal tissue, and containing 95.5 per cent of salts, against 75 per cent in the dentine. As this is so, it is clear that a supply of fluorine, while the development of the teeth is progressing, is essential to the proper formation of the enamel, and that any deficiency in this respect must result in thin and inferior enamel. Sir James Crichton-Browne thinks it well worthy of consideration whether the reintroduction into our diet of a supply of fluorine in some suitable natural form—and what form, he asks, can be more suitable than that in which it exists in the pellicles of our grain stuffs?—might not do something to fortify the teeth of the next generation.

Golden Trout.

Three specimens of trout caught in Mount Whitney creek, on Mount Whitney, by Mr. Harvey of Lone Pine, Inyo county, Cal., and by him given to Hon. Geo. S. Mills, Fish Commissioner of Nevada, who in turn sent them to William H. Sharkley, were sent to Dr. David S. Jordan, President of Leland Stanford Jr. University, with the request that he classify them. The following is what Mr. Jordan has to say of them:

"They are the famous golden trout of Mt. Whitney and the Upper Kern river, which has attracted the attention of anglers for some little time, but which has not yet, so far as I know, received any adequate notice in print.

"The trout were first brought to my notice by Lieutenant Wheeler's geological survey, which brought me specimens in 1877. These were not in very good condition. I regarded them as of the same kind as the the trout in the headwaters of the Colorado, at the same time calling attention to the remarkable distribution of species on both sides of the desert and the mountains. Later on I received other small specimens, but still in such poor condition that I could do nothing more with them. The three received were in perfect condition, and I have had a colored painting made of them. The fish is really a distinct species of trout, entirely different from any found elsewhere either in the Rocky mountains or Sierra Nevadas. The very small size of its scales, the lack of teeth on the hyoid bones, and the peculiar color markings, are all distinctive of this trout, which will in time receive a name of its own.

"It seems evident, so far as one can judge of such matters, that this trout is descended from the trout of Western Colorado, which abound in the tributaries of Clear river, the Green river and the Grand river and in the Gunnison district. But in being separated from these trout it has undergone a considerable change, and one would think this separation must have occurred before the Sierra Nevadas were elevated. It has already been claimed by geologists that the Kern valley, although on the California side of the Sierra, is geologically a part of the Great Basin. Its trout, at any rate, are wholly different from the rainbow trout of California."

How to File a Saw.

Every person should have a crosscut saw and a ripsaw, and should know how to file both. He will need a three-cornered file and a couple of straight-edged boards, two or three inches wide and about the length of the saw, between which to clamp the saw in position firmly while being sharpened. The principle of sawing is the same as cutting. In ripping, the teeth act like a series of chisels, and should conform to a chisel shape as nearly as is consistent with the proper strength at the base of the tooth. The teeth of ripsaws are filed straight across the blade from every way, thus giving an entirely level and straight front to the tooth

The filing of crosscut saws is more difficult than ripsaws, at least to the amateur, as they are filed at an angle both horizontally and perpendicularly, and the set, or pitch, of the tooth must be governed by the hardness of the wood to be sawed. The softer the wood, the steeper the forward pitch of the tooth may be. In this form, the sides and base of the tooth are equally long. This gives the base of the tooth the strength to resist the pressure of the hardest woods. The hardness of the wood has also to do with the size of the teeth, as the harder the wood, the smaller the teeth must be in the same style of saw. The set of the tooth may be given fairly well, by a careful hand, by tapping each tooth with a hammer and punch as it lies flat on the end of a hard wood block, but it is best administered by one of the many good saw-sets in use. The width of the set is governed by the softness or sponginess of the wood. Elastic wood, such as willow, requires a very wide set. Give in no instance more set than is required to make the saw run easily, as all beyond this demands extra and useless effort, besides wasting the timber.—Farm and Home.

It is not generally known that the light of the sun and the moon exercise a deleterious effect on edge tools. Knives, drills, scythes and sickles assume a blue color if they are exposed for some length of time to the light and heat of the sun; the sharp edge disappears and the tool is rendered absolutely useless until it is retempered. Purchasers should therefore be on their guard against buying tools from retail dealers and peddlers, which for show purposes have probably been exposed for days together to the glare of the sun. The unserviceableness of tools acquired under these conditions is generally wrongly attributed to bad material or to interior workmanship. A similar prejudicial effect has been exercised by moonlight. An ordinary crosscut saw is asserted to have been put out of shape in a single night by exposure to the moon.

The Ancient Blacksmith.—The blacksmith occupied an important position among the craftsmen of the Middle Ages. The insecurity of life and property, which was one of the chief grievances of the times, made strength of material indispensable, whether to guard the shrine of a saint or to protect, after a more homely fashion, the family chest or coffer. The strength and durability of iron led to its use for these defensive purposes from early times. Until coal came into general use, malleable iron was produced direct from the ore with charcoal fuel by continuous working. Sussex was from early times the chief seat of the iron industry. The earliest positive record of the trade there is contained in a grant made by King Henry III to the town of Lewes in 1266, by which the inhabitants were empowered to raise toll for the repair of the town walls after the battle. Every cart load of iron destined for sale, which came from the neighboring "weald," was to pay one penny toll, and every horse load of iron half that sum. In 1290 a sum of money was paid to a certain Master Henry of Lewes for the ironwork to the monument of Henry III in Westminster Abbey, which reminds us that talented smiths were brought often from long distances for important works.—Chambers Journal.

Rust from Plows.—An exchange gives a good recipe for removing rust from plows, Purchase a small quantity of sulphuric acid, which may be had from any drug store for a small sum. Pour five ounces of it into a pint of water, slowly and carefully so as not to come in contact with the hands or clothing, as it will eat into the flesh worse than fire. Apply this to the plow, or any other iron or steel implement to be cleaned, with a paint brush. As soon as one application of the acid is dry, apply another; usually three or four coats will be enough. Then wash off with clear water. If any spots remain, paint over these spots again and rub with brick dust. After the iron work is cleaned, paint it over with a little coal oil or linseed oil; this will keep it free from rust. Set the implement in a dry place and on a wooden floor. All implements, when kept free from rust and bright, will scour readily in the soil, will do better work, and with little extra force. A badly rusted plow is very worrying to work with, both to the team and plowman. The plow cannot be made to clean, causing frequent stoppages, and the furrow cannot be turned completely over, making very poor work.

Houses of Glass.—While transparent glass brick have been employed for some time in walls of buildings to afford light at places where a window would interfere with the architectural plan, this material has not been used to any extent for general construction purposes. It is now proposed to cast the glass, not necessarily transparent, into large blocks for buildings. As it is practically indestructible, nonabsorbent, and therefore damp-proof, it is expected by this means to furnish coarse glass in suitable shape as cheaply as concrete or stone. A plan has also been put into practice by which broken glass of various colors is mixed up, placed in molds lined with silica, talc, or other resisting material, and fired. The result is a firmly coherent mass, which can be dressed and cut into blocks. These are, of course, irregularly colored and may be employed in place of artificial marble. If decorative effects are desired, designs in relief can be obtained by pressure while the block or slab is still plastic.—Boston Journal of Commerce.

Boston maid—In Boston even the bootblacks, some of them, have studied Latin.

New Yorker—In New York nearly all the bootblacks are proficient in Italian.

Unitarian Literature

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Our Entire Stock
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INFORMATION FOR SETTLERS!

The members of the Kern County Land Company have a national reputation for wealth, business and financial ability. These facts set the matter of reliability at rest. The company's capital stock is $10,000,000.

They have 400,000 acres of arable, irrigable lands upon which the sun shines almost constantly; and their enormous irrigation system renders them independent of the annual rainfall.

A clear title; rotation, variety and certainty of crops; easy terms; availability to persons in moderate circumstances; ground ready for the plow—no stones nor thistles; good society; schools; churches, etc., are a few notable attractions of this region of country.

Kern is the largest county in the San Joaquin Valley. It has the finest climate for curing and drying fruits, etc.

The 400,000-acre territory of the Kern County Land Company is the pick of the county.

Its area is 5,184,000 acres.

Has the largest irrigation system in America.

The home of the peach, French prune, pear and raisin grape.

Planting and harvesting can be carried on every month in the year.

No rocks, hills or stumps on the land.

A failure of crops is unknown on irrigated lands.

Kern county fruits take the first prize at the State Fair.

Land can be made to pay for itself in less than three years.

Grows more alfalfa than any other county in California.

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Through 300 miles of main canals, and 1,100 miles of laterals, the great Kern river furnishes enough moisture to slake the thirst of the 400,000 acres already referred to.

Drought is out of the question.

The system has been constructed in the most careful and scientific manner. Some of the canals are 125 feet wide and six feet deep.

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Bakersfield, - - - California.

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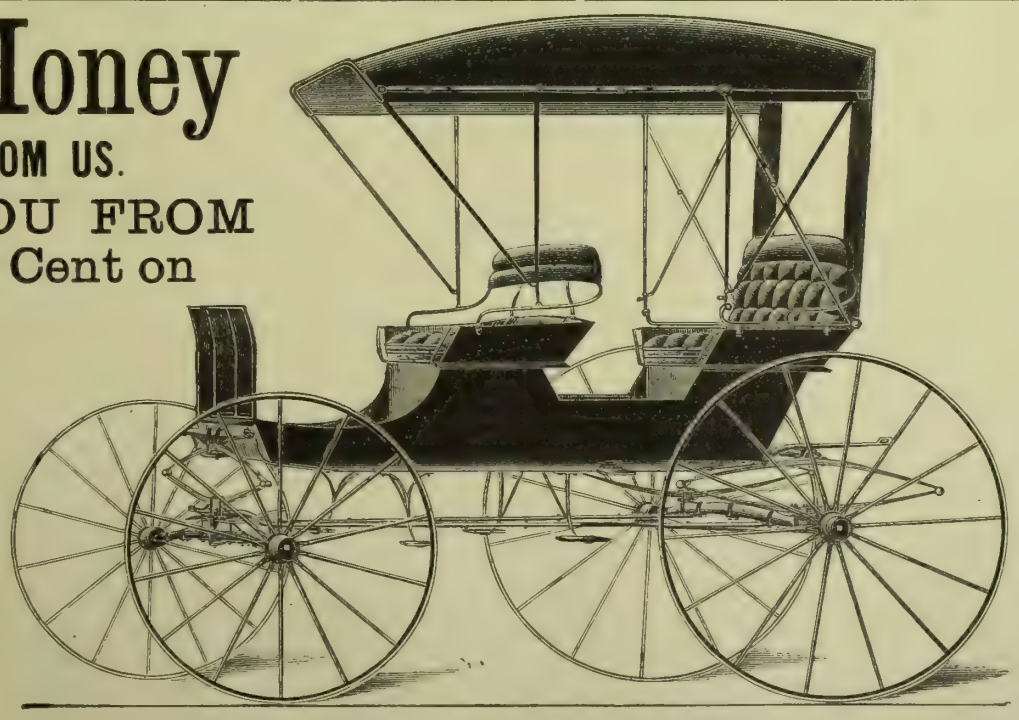

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Or, I. H. THOMAS & SON, Visalia.

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500,000 FRUIT TREES!

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PHŒNIX NURSERY COMPANY,

Successors to SIDNEY TUTTLE & CO., BLOOMINGTON, ILL.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

MONEY IN CHERIES.—Livermore *Herald:* Crellin & Sons netted $12 on each of their cherry trees this season. They were of the Queen Anne variety. It is estimated that 100 trees can be set out on an acre of ground. Twelve hundred dollars an acre is not bad by any means. We wonder that more in this vicinity do not set out cherry orchards. There must be several other localities that are equally as productive as that of Messrs. Crellin & Sons.

Fresno.

DRIED GRAPES.—Fresno *Republican*: Dried wine grapes are selling at 3⅜ cents per pound, and the crop of Zinfandels, the preferred grape for this purpose, averages two and a half tons to the acre. This indicates a gross income to the Fresno grower of $168 per acre. That is why the wine-grape men are smiling. The cause of the good price is said to be the failure of the fruit crops in the east and a 40 or 50 per cent shortage in the Zante currant crop. When fruit is short in the east, raisins and dried grapes are always in great demand.

Inyo.

THE CREAMERY IN RUNNING ORDER.—Bishop *Register:* This institution is running splendidly, and is proving more of a success than the most sanguine anticipated, seeing that its starting was delayed so late in the season. It has a capacity of about 10,000 pounds of milk per day. As yet it is running to only about one-third that capacity, but is gaining every day. About one-half the milk is made into cheese, the remainder into butter, which truly seems to be "gilt-edged."

Kern.

THOROUGHBRED HOGS.—Hunter Brothers, of Horn Ridge farm, in Bakersfield *Californian:* At Frank Corsett's dairy at Old River is a herd of Poland Chinas containing some of the best blood in this or any Eastern State. J. S. Ellis and Van Stoner, in the same neighborhood, have 200 high-grade sows, and now use none but thoroughbred boars. Peters and Simmons, in the Panama district, have nearly 1000 head and are introducing thoroughbred Poland China boars into their herds all the time. Fred Langdon, on the old Troy place, has 400 head of Berkshires, many of which it would puzzle an expert to tell from pure-bred stock. Mr. Langdon raises three litters a year from his sows, and at the spring farrowing his highest grade Berkshires averaged 13 pigs to the litter. On our own place we have a herd of as highly bred Berkshires as money can buy. The boar Victor, which stands at the head of our herd, bred by the late Andrew Smith, was sired by Model Duke, who cost Mr. Smith $850, the highest price ever paid for a hog on this coast. Our registered sows are all of the best strains of blood to be found in California and the Central States.

Los Angeles.

FRUIT SHIPMENT A SUCCESS.—J. C. Beekman, general manager Southern Cal. R. R. writes: "We have demonstrated the fact that fruits from southern California will stand the long haul as well as the northern fruit, and the reports I have thus far received indicate that it is equally as good and sells in competitive markets at equal prices. During the season we have shipped about 15 carloads of apricots from various localities, and I take pleasure in enclosing a few clippings which will give you an idea of the results. Some of the later sales netted the grower as high as $45 per ton. The growers and buyers are taking a great deal of interest, and quite a large tonnage of peaches, pears, grapes, etc., has already been contracted. A number of cars of peaches is now en route. The outlook is much more favorable than we had any reason to expect for the first year's business."

THE WALNUT CROP.—L. A. *Express:* C. A. Coffman of Rivera reports the walnut crop the best on record. It is estimated that 75 carloads of walnuts will be shipped during the months of October and November. The entire crop has been sold at 7½ cents for hard-shell, and 8½ for soft-shell, by the Los Nietos and Ranchito Walnut-Growers' Fruit Association.

Merced.

GRAPE NOTES.—Merced *Star*: There will not be the usual quantity of wine made on the Merced river this season, as most of the grapes will be dried and shipped East and there made into wine. The vineyardists are to receive $60 per ton for their dried grapes delivered in Merced in bulk. The grapes will be stemmed, then packed in sacks and boxes and shipped. As it takes about three pounds of grapes to make one pound of dried fruit the profit to the vineyardist will be very satisfactory.

Napa.

GRAPE CROP LATE. — Calistoga *Calistogian:* Grape-picking and wine-making will begin unusually late this year, as may be quickly noticed by looking at the size and condition of grapes. A long spell of steady warm weather, beginning without delay, is all that will put them in condition for picking within a reasonable length of time. Of work in past seasons at a large winery in Napa, the *Register* says: "Last season wine-making was commenced at Carpy & Co.'s on the 22d of September, five days later than the previous season. Four years ago, at the same cellar, crushing was begun on the 16th of August, but the grapes came from Vina and Yolo, where crops ripen earlier than they do here. It will probably be late in September this year before grape juice begins to flow at the Napa wineries."

FRUIT NOTES.—Napa *Register*: F. W. Bush, whose thrifty orchard is seen from the Trancas road, and is bounded on the east by Milliken creek, has 1100 prune trees which he expects to yield him 50 tons of fruit—a greater crop than he gathered last year. When the season first opened, bidders for fruit were shy and canners failed, as in other years, to visit growers with a view to making contracts. But as the season advanced, and trainload after trainload of fruit left the State for eastern markets, buyers appeared on the scene and orchardists were in many cases allowed to fix their own prices. As a result, Mr. Bush gets from $30 to $50 a ton (against $25 last year) for his prunes delivered at Tool's drying and packing house, a mile away. Mr. Hunter, whose orchard is adjoining that of Leonard Coates off the Big Ranch road, has some 1500 prune trees. He has sold the product of these to Webber & Co. of San Francisco for $55 per ton. The rest of his fruit he has disposed of at satisfactory rates to the Oakland Preserving Co. J. H. Wilcox is sending his apples to San Francisco, getting $1.25 per box of 50 pounds for his early Junes. A. D. Butler has sold his peach crop, some 15 tons, for $30 per ton f. o. b. He will dry his prunes, the yield of which is with him lighter than last year, but the quality is better.

Placer.

PROSPEROUS FRUIT GROWERS.—Auburn *Republican:* The fruit-raisers of Placer county are reaping a rich harvest this season. There is a fair crop of nearly every variety of fruit, while the crop of peaches is nearly as large as last season, which was far above the average. Prices have ranged high thus far during the season, and there are prospects of even a greater advance on many varieties of choice late fruit. The large amount of money now pouring into Placer county will encourage new investment, increase planting and greatly add to the prosperity of the county.

San Bernardino.

FRUIT NOTES.—Los Angeles *Times:* The following is a summary of the orange and lemon shipments from Ontario for the present season, which may now be considered as closed:

	Oranges boxes.	Lemons boxes.
December	400	80
January	438	268
February	305	80
March	4,780	133
April	1,957	176
May	1,580	165
June	560	96
July	70	147
Total	10,090	1,145

This is a trifle short of 42 cars. The shipments the coming winter should exceed 50 cars. There were 38,380 pounds of green fruit and 74,420 pounds of dried fruit shipped from Ontario during July. Over the Santa Fe alone over ten tons of berries were shipped by express. Capt. Garcia will realize the nice little sum of $2000 from his five acres in prunes. He has sold the crop at $50 per ton. Several other prune orchards will pay from $300 to $400 an acre this season. Mr. Fassett of the north Ontario evaporator says that he knows of one fruitgrower who received from $1000 to $1100 for the crop of Royal apricots on three acres, and he sold for a cent a pound. That is the best yet on apricots, nearly $400 an acre.

San Diego.

ABOUT ALMONDS.—E. E. Pierson of Banning in Escondido *Times:* People who are making the almond pay and produce good regular crops plant different varieties together on account of the cives fertilization of the bloon. The Lunquedec, one of the early soft-shell nuts, never has done well in this State unless other kinds have been planted near it, when it has been made to produce a large crop. The almond prefers a loose, light, warm soil, and will make a failure on poorly drained, heavy land, but will make a good growth of wood. I have a young orchard here of almonds, only two years old, that will have more than enough fruit to pay for all care and cultivation this year.

San Luis Obispo.

GRADE UP YOUR FRUIT.—Arroyo Grande *Herald*: During the past week we have visited almost every orchard in the valley. The fruit crop is not as heavy as usual, but generally it is of excellent quality. Many of the orchards have been planted for home supply and have answered admirably that purpose, but a new order of things has commenced and it is possible now to sell fruit in 20-ton lots. The orchards of two or three trees of each variety cannot sell fruit to the driers nor to canneries. Fewer varieties and more trees of each kind is what is needed. Cut off every pear tree and graft them to the Bartletts. If we were called on to give advice we should say, plant nothing that cannot be sold to the canneries, and this would be the list: Apricots—Moorparks and Royals; pears—Bartletts; peaches—Crawfords and clings; plums—Eggs, Gages and Washingtons. These are all staples with the canneries and bring top prices in carload lots or by the basket. A revolution in the fruit business is beginning and those who bring their orchards up to standard varieties will reap the benefits.

Santa Barbara.

PRUNING FROM EXPERIENCE.—Santa Maria *Times*. N. H. Woods of Cat canyon has one of the oldest and most profitable apple orchards in this end of the county. He has a first-class location and his trees have always received care and cultivation to the full extent of his knowledge. Several years ago he noticed that some of his hitherto healthiest trees were decaying in certain portions of the top where a limb had been cut off some time before. He made inquiries of his neighbors who told of similar troubles, but gave him no satisfactory reason. Mr. W. had a large orchard in bearing, and was dependent upon it, in a measure, for his subsistence. He was naturally somewhat alarmed at the disastrous showing made by some of his best trees, and resolved to solve the mystery, if possible. After a few years of experimenting, he found that by pruning his apple trees directly after the fruit is off, or when the leaves are falling, he could cut all the wood he wished to take off without injury to the tree The wounds would heal up and no signs of decay would ever appear. He also found that by cutting off limbs, especially large ones, in February and March, the stub would frequently die back the first year to the main limb or to the trunk of the tree, and the next year the decay would extend to the heart of the tree so that where the limb grew originally there would be a hole from which decayed wood could be gouged out with a stick. This decaying process would extend to the roots of the tree by the third year and result either in the death of the tree or leave an unsightly snag struggling for existence, instead of the thrifty, profitable tree of old.

POOR HORSES A DRUG.—Santa Maria *Times:* The one kind of stock which is at present a drug on the market is the ordinary breed of horses. The whole country is overstocked and there is absolutely no market for inferior animals. Those who have well-bred horses, either draft or roadsters, find no difficulty in disposing of them at good figures. This should be an object lesson to those concerned.

Santa Clara.

SPLENDID TOBACCO CROP.—Gilroy *Gazette*: A visit to the Culp place at San Felipe enables us to state that the 50 acres of tobacco planted there this year promises a very superior quality. Many of the plants are over seven feet high, the leaves large, perfect and of very delicate texture. The gathering will commence this week.

A MODEL FARM.—Gilroy *Advocate*: A place where refreshing breezes come from the coast to give new life to pleasure seekers is Sargent's Camp, six miles south of Gilroy. The Camp is about the center of Sargent's ranch of 8000 acres, more or less, where its owner, the Hon. J. P. Sargent, enjoys agricultural life. Some of the land is as rich as any in the State, and the fertility of the bottoms is unsurpassed. The mountainous pasture is covered with nourishing feed for the sires blood colts and bulls ad infinitum. Mr. Sargent is a lover of thoroughbreds. Lately a span of horses was sold by Mr. Sargent to a prominent physician of San Francisco for $5000. There are at present about 150 cows in use at the dairy, pure Durham stock. The bulls are all imported. The corral where the milkers ply their fingers twice daily over the milk-bags is an attractive sight at milking time. The dairy is equipped with modern machinery, and under direction of Romain Currey, the man in charge, from 8 to 14 solid, well-compressed 35-pound cheese are produced daily. Elevated on a high bench is an orchard of olives. The trees are two years old, but their rapid growth tells that the soil and the temperature are favorable to the growth of this old Mission fruit. Down below the road, in the moist land, is an old orchard of varied fruits, where healthy trees bear prolific crops, and away beyond is the meadow land where the rank grasses grow, and where everything in God's world of value in fruit and vegetables can be readily propagated and brought to perfection.

Solano.

SCARCITY OF FRUIT CARS.—Vacaville *Reporter:* The fruitshippers for the first time in many years are suffering from a famine of refrigerator cars. There has been a large number of new refrigerator cars built this year, but the demand for California fruit is so great that all the cars are constantly in use. This condition speaks volumes for the fruit business.

Sonoma.

THE HOP CROP.—Santa Rosa *Democrat:* The hop crop of Sonoma will be two weeks late in ripening. The yield will be short of an average, but the bloom indicates that there will be a better yield than was supposed three or four weeks ago. There will be no hops picked earlier than the 10th of September. They usually ripen at least ten days earlier. The growth has been uneven and there are a good many missing hills. The spring was backward, the bloom is late, and looks promising, but no one can tell what the outcome will be on account of the unusual conditions of the season. If the moisture holds out the yield will probably be good. The growers are anticipating good prices on account of unfavorable reports from other sections. No transactions of of any kind are reported lately, and at present the views of producers and sellers are quite far apart.

Sutter.

FRUIT NOTES. — Yuba City *Farmer:* From every direction can be seen the large fruit wagons bringing in the products of the orchard to the cannery. When one considers the amount of fruit that can be packed by about 500 hands the magnitude of the work is realized. The largest run in one day was 22,000 cans, and the employes did the work in ten hours' time. Peaches are the principal kind of fruit and the varieties are the Muir, Orange and Susquehanna Cling, Wheatland and others. Another carload of pears was recently received from P. V. Veeder and a small pack has already been made of Egg plums. The drying department is running briskly. A carload of canned goods was shipped from the warehouse on the grounds Tuesday to St. Louis. Some of the peaches being received at the cannery this season are very large. We noticed some varieties there recently from the orchards of Robert Davis, J. C. Gray, R. C. Kells, B. F. Walton and Rancho Sutter that weighed from 14 to 18 ounces each.

Tehama.

TRAINING THE COLTS.—Nevada City *Telegraph:* About a year ago Senator Stanford sent word to his manager at Vina ranch to train all the most promising two and three-year-old colts, and in consequence there has been a number of them worked and they are showing up in great form. Mr. George Fletcher, of the 17th Agricultural Association, tells us that there will be seven or nine of Senator Stanford's best colts here sometime during this or next week, and all of them are entered in the principal events on the program.

Tulare.

REVIEW OF THE GRAIN CROPS IN THE COUNTY. Tulare *Times:* From J. W. Fewell, head bookkeeper for A. Showers, manager of the Grangers' bank in Visalia, we obtain the following facts regarding the present grain crop of Tulare county. There is a great deal of grain being stored this season and the farmers show a willingness to hold their grain. The warehouses at Lindsay, Roth Spur and Tarusa will be filled this summer. There will be 2500 tons at Lindsay, 3500 tons at Roth Spur and 2500 tons at Tarusa. The wheat crop around Goshen is light, owing to the blight in that section this spring. The Grangers' bank estimates that the blight shortened their receipts at Goshen 1000 tons. There will yet be 2000 tons of grain received at Goshen. There will be 100,000 sacks shipped from Terrabella this season, or about 8000 tons. At Munson there will be 1500 tons stored and 2500 tons at Exeter. Comparing the crop this year with last, Mr. Fewell says the crop this season is 25 per cent larger than last year, and the storage will be 40 per cent more. The quality of wheat this year is not so good as it was last; this is owing in part to the smut and part to the oats found in the wheat. Barley is of a better quality this year and there is more of it by 50 per cent. It is better filled out this year than last. Mr. Showers has sold a third more sacks this year than last. The losses by fire this year have been very small. The only loss of any note occurred at Hanford, where a fine setting of wheat was burned, as is supposed, by an incendiary. Mr. Showers has sold 400,000 sacks of grain this year to 320 000 at this time last year. As a rule, the farmers are drawing considerable money on the grain that is stored.

ORCHARD AND FARM NOTES.—Grangeville Cor. Visalia *Delta:* John Russell hauled 20 sweat-boxes of second crop last year raisins to Hanford and got $20 for them, or one cent per pound. He had one box of dried peaches for which he received $15. John said that it was like finding the $15, for the peaches were seedlings and he had nothing to do for a few days, so he put in the greater part of three days cutting and drying the fruit. No water in the People's ditch at this season of the year is causing considerable complaint among the vineyardists and those lawns in need of water. Raisins are going to bring a big price this year. We hear of contracts being made in Fresno at 5½ cents per pound. Lucerne raisins ought to bring six cents. Alfalfa-hay is selling at $4 and $5 in the field.

PROFIT IN NECTARINES.—Hanford *Journal:* H. W. Byron has 7½ acres of white and red nectarine trees, about an even number of each variety, from which he has harvested this year 20 tons of dried fruit. He contracted it all for ten cents per pound, and the 7½ acres will bring him $1600, or $213.25 to the acre. The trees are only four years old. He expected to finish his apricots on the 30th ult. and commence work on his peach crop on the 1st inst. He hires white labor exclusively for cutting fruit, and says he has no trouble getting all the help he needs.

Yuba.

PREMIUMS ON DRIED FRUIT.—Marysville *Democrat*: The amount offered in premiums for dried fruit at the coming fair to be held in Marysville is the largest ever offered in the State, being fully a quarter more than offered at the State Fair. Every fruitgrower should place an exhibit in the pavilion, even though small, as this is the fruitgrowers' year. For the best general display of dried fruit, $75; second best, $50; third, $25; and on each variety in ten-pound lots there is $5 for first premium and $3 for second, which includes apples, peaches, plums, apricots, nectarines, figs, pears, raspberries, blackberries and cherries.

PREMIUMS ON GRAPES.—*Democrat*: The largest premiums ever offered in the State on grapes by any agricultural society are the awards to be given exhibitors at the Marysville fair this season. On the most artistic exhibit, the first premium is $75; on second. $50; third, $25. Then for best and largest display of all varieties, first premium of $50; second, $25. Also for each variety, as follows: Table grapes, $10; raisin grapes, $10; wine grapes, $10; and for second best of each, $5. On seedless grapes, $5; second, $3; and on best bunch of grapes, $3; second best, $2.

NEVADA.

SHORT POTATO CROP.—Pioche *Record*: Farmers from surrounding valleys report an almost total failure of the early potato crop. This also seems to be the case in other places around us. Orders for the vegetable are now being sent to Salt Lake from here. A teamster from Parowan yesterday disposed of a load of old potatoes at ten cents a pound, which is the highest price paid here for 15 years or more.

OREGON.

SHEEP IN HOPFIELDS.—Eugene *Register:* We are told that some of our hopgrowers are trying something new this summer, that of turning sheep into the yards. It is claimed that in a couple of weeks they eat off all the little shoots or suckers growing about the base of the vines. In this way the vines get all the nourishment the roots have to give, instead of part of it going to these suckers, and it is also claimed it deprives the hop lice of a favorite resort, as they gather in these sucker sprouts. Sheep may be seen in a number of yards about the country.

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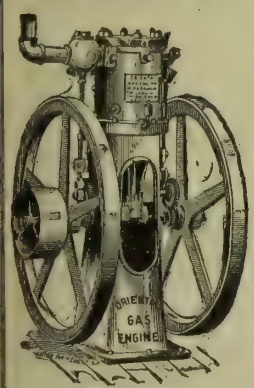

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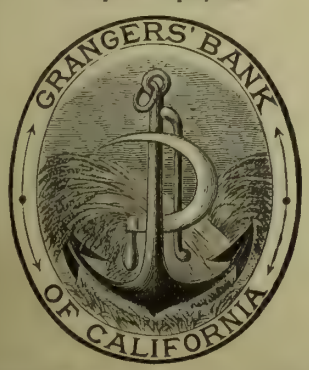

Authorized Capital	$1,000,000
Capital paid up and Reserve Fund	800,000
Dividends paid to Stockholders	720,000

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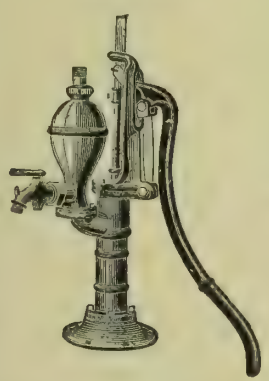

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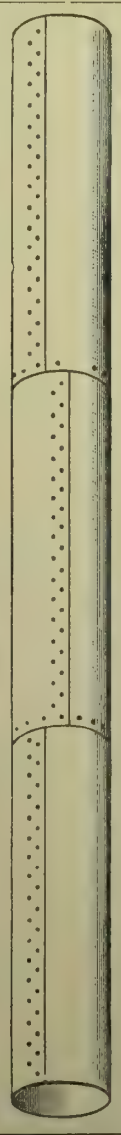

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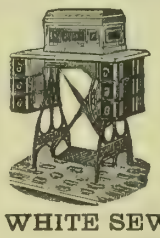

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Patrons of Husbandry.

The Secretary's Column.

By A. T. Dewey, Secretary State Grange of California.

ELECTING ALTERNATES.

An active Patron sends this suggestion, which we insert for what it is worth, the writer evidently having in mind that alternates sometimes elected do not attend the State Grange and remain during the session, while the officers are quite sure to stay until the end:

To wit: In all the subordinate Granges where an officer of the State Grange is a member thereof, that they be elected alternates, if agreeable to the members of such Granges; for this reason, that there may be a quorum present at all times during the session of the State Grange.

One of the leading workers of San Jose Grange writes in a private letter to his sister, the following paragraphs, which we think our readers should have the benefit of:

"We are busy at work in our Grange preparing for the State session. We hope to have everything in such good shape that the se sion will be one that will always be looked back upon with pleasure. We have been most fortu ate in getting halls, and I am sure that you will all say that we could not have done better. We find Mrs. Adams just the right woman in the right place on the Literary Committee. She is doing splendid work, and I wish to emphasize her desire to have something original from your pen.

"We hope and expect to have a large meeting and we shall do all in our power to make it a pleasant one. We have engaged some of our best local talent to come in during the sessions, and the Board of Trade and Chamber of Commerce will tender the State Grange a welcome on Tuesday evening. Hon. W. V. Morehouse will make the address; he is considered the most eloquent speaker we have here. Be sure and be on hand the first day, as we are planning something pleasant for that day. What with the State Grange, the World's Fair work with which I am engaged, and my home and social duties, I find this summer full of pleasant work, and if my part is only one small atom, we have just to remember that the aggregate is made up of atoms, and though our work is lost in the whole, the whole would not be perfect without it, and with that thought in view we can go on cheerfully adding our small doing, our jars of fruit and glasses of jelly, and so help make up Santa Clara county's exhibit, and in that there is a thought good to keep by us, and when things go awry, and life seems a failure, remember that these all go to make up the sum total of our life here. Somebody has got to do the small things and I would rather be counted in on small things than not counted at all."

Secretary Noble has appointed Reuben P. Boise, Master of Oregon State Grange, and William H. Odell, of Salem, Oregon, and H. H. Harding, of Carthage, Mo., as a commission to negotiate with the Indians of the Siletz reservation, in Oregon, for the cession to the United States of lands not needed for allotments.

LODI GRANGE AND RAMIE CULTURE.

W. H. Murray, superintendent of ramie culture, attended a meeting (at recess) of Lodi Grange, Aug. 20th, and gave a lecture on fiber culture, viz.: ramie, flax and cotton. He remarked that all fiber plants could be grown successfully in San Joaquin county. The ladies present were delighted with the appearance of the texture of fabrics made of ramie, and silk and ramie. Mr. Murray, reports the *Sentinel*, said:

"It stands to reason that the building up of an industry based upon the cultivation of fiber plants opens up vast possibilities. The world has to be clothed, and that article which will accomplish the object in the best manner and for the least money must lead in supplying the market. That article is ramie, and its general introduction will start up numbers of factories to give employment to our people. Let the United States pay such attention to this matter as its importance demands, and America, instead of paying tribute to the skilled labor of the old world, will manufacture a cheaper material than can be produced from either cotton or silk.

"No part of the United States is better adapted to the cultivation of this plant than California. Reviewing the experience of California in the matter of silk culture, cotton and other textile plants, ramie culture is free from the objections and difficulties that beset the other textiles. The value of raw silk that annually passes through California to the East is $19,000,000 and silks imported manufactured, $37,880,143. Ramie could be used as a substitute for about half of this, as goods made from silk and ramie in equal parts rival the pure silk in appearance, texture and durability. As to the marketing of the staple, the California Cotton Mills at East Oakland will buy this fiber. This company is paying $40,000 a year in freight to the railroad for raw cotton material; the farmer also pays for grain twine $250,000 yearly, made from flax. Referring to the value of the various fibers, wool, silk, cotton, flax, Angora goat hair, etc., ramie is more valuable than any of these for Californians to cultivate. It would add another to the agricultural industries, the great need of which is diversity."

AT STOCKTON GRANGE.

July 30th, N. T. Root, Sec'y, informs us that Stockton Grange adopted the following:

Resolved, That the revival of the question of ramie culture is being brought forward by prominent parties in California; that they have demonstrated that the experimental stage has passed; and that we in California can show that ramie can be grown and worked successfully. All fiber culture should be fostered, and diversified farming should be encouraged by the State to its fullest extent.

Officers' Reports.—The following governs the advance publication of officers' reports: "Resolved, that hereafter all the officers' reports, and reports of District and County Lecturers, be handed to the Secretary of the State Grange not later than Sept. 15th, and the above named reports be printed in pamphlet form for the use of members of the State Grange at the commencement of the session."

The Fifth and Sixth Degrees will be conferred on Thursday evening at the coming State Grange session, instead of Friday, as has generally been the custom.

The Twenty-Second Anniversary of the founding of the Order of the Patrons of Husbandry occurs on Sunday, Dec. 4th. Let us celebrate the important event on Saturday, the 3d, universally and joyously.

Penn's Grove has prospects for a new Grange.

Bennett Valley Grange.—The *Orchard and Farm*, Aug. 1st, contains life-like portraits of Hannah C. Carr and Jos. N. Talbot of this Grange. Bro. Talbot is present Master. Sister Carr, with her husband, Nelson Carr, is well and kindly known among the oldest and most faithful Grange workers in the State.

A Day Off.—Thanks of the Secretary are due Past Master Daniel Flint for "joint expenses" on a round-trip to Leland Stanford Jr. University. Neither of us had seen Palo Alto since the visit of the National Grange to the University site, when a few buildings only were partly erected. No one who has failed to visit the place lately can begin to realize the extent and beauty of the fine grounds and the substantial buildings already constructed. Although it is now "vacation," we saw much to interest. We were received courteously by president Jordan and others met during our brief stay. We have not space to report, but believe it would be well for all who can to see for themselves what has and is being done at this, the youngest and one of the most remarkable educational institutions of the world.

Past Master Coulter gave us the pleasure of a visit last week; also State Lecturer Huffman. Bro. Loucks called in on Wednesday, active as ever.

The State Grange will not make any formal exhibit in the Historical Exposition at the State Fair.

Paper Manufacture.

The United States Consul-General at Seoul, in his last report, says that paper manufacture is one of the leading industries of Corea. This paper is highly esteemed, and always forms part of royal presents, and of the tribute paid to China. Besides its use for writing and for books, it is employed in a great diversity of ways. It serves as string and in the manufacture of lanterns, fans, umbrellas, shoe soles, hats, boxes, and coats. It is also used for covering floors, walls, and ceilings, and, stretched on frames, supplies windows and doors. It is highly prized in China and Japan, and is especially sought after for the manufacture of umbrellas. It is made from the bush of the mulberry order (*Broussonetia papyrifera*), which is indigenous, growing in many parts of the kingdom, but thriving best in the moist, warm climate of the south. It is chiefly grown from cuttings for this especial purpose, and the wild and cultivated plants are said to be of equal value. The bark, which alone is used, is generally gathered in the spring, and it is boiled for a long time in water, in which a quantity of wood ashes has been mixed, until it becomes a pulp, the mass having been beaten during the whole time of the boiling. Fine bamboo screens are then placed in shallow wooden vats, and a ladleful of the pulp is evenly spread over the screen by a dexterous circular motion of the hand. This operation is repeated once or twice, or as often as may be necessary—the more frequent the operation, the finer the paper—and the screen allowed to drain into the vats, until a proper consistency is reached, the drippings being thus saved. They are placed on a hot *kang* floor to dry. After the drying has proceeded far enough, the paper is laid on a hot floor, and ironed by hand. The long lines in the paper show strands of the bamboo screens, and their nearness, distinctness or absence indicate the fineness or otherwise of the paper. They are almost imperceptible in some grades of paper, while in others they are distinct and far apart. Paper is made by the Paper Guild, a numerous and prosperous association. The province of Chulla is the chief seat of manufacture.—Science.

A Kind of seaweed which is plentiful on the coast of China furnishes an admirable glue and varnish. When dried it is waterproof and it is employed to fill up the interstices in bamboo network, of which windows are frequently constructed in that country. It is also utilized to strengthen and varnish paper lanterns.

Domestic Economy.

How to Make French Rolls

Boil four potatoes of ordinary size, having peeled them first, and mash them up fine in the water in which they were boiled. Stir the potatoes in a quart of flour, adding the usual quantity of yeast. Make the dough thick, as hard as it will hold together. In rising it softens so much that it can just be kneaded without sticking.

The kneading is an important part of the operation. A quarter of an hour's kneading ought to suffice for a small recipe like the one here given. Knead by drawing out one end like a rope and rolling the other portion over and over. The object of making dough thick and stiff to begin with is to avoid putting in flour after the dough is light, for the mass softens so much by putting potatoes in that it will be just right when fermented.

After the kneading put the dough away to ferment again, and, when light, knead as before. A third kneading still improves it, but it is not necessary. No butter should be put in these rolls or in bread either, as it makes it like a short cake in grain, which is precisely what one desires to avoid.

Good rolls ought to be puffs of wheat flour baked; they ought to tear in shreds or stripes, have a fibre or grain like the husk of a cocoanut and a fragrant wheat smell, and lastly have a rather tough spring or tear to them and a crackly crust. In form they are round at the sides and bottom, and this is attained not by rolling them up between the hands, as many suppose, but from the potatoes and the way in which they are kneaded.

Each roll must be cut off the mass of the dough; that is to say, the dough must not be kneaded and then shaped into rolls, but must be kneaded and put back in the pan again to rise in a lump. When raised and kneaded the last time, turn it all out on the board, cut off each roll from the mass without tearing or disturbing it, or even touching it with the hands, (a little practice will enable one to do it,) and place them gently in the baking pan about an inch apart. After standing a few minutes—say five or six—they will be ready to go into the oven, and ten minutes ought to bake them if they are light.

Before they are put into the oven they should be cut down the middle with a knife dripping with melted butter. This prevents the cut sides from coming together, and makes the cleft clear and well defined.

As to the trouble involved in the process, I leave that to the judgement of housekeepers. At six in the evening we set our rolls, at nine they are ready to knead. They are left all night to rise again, and the first thing in the morning, before the fire is made, are kneaded again. When they are light, which will be in an hour, they are ready to bake.—*Harper's Bazar.*

Chicken Soup.—Take about a quarter of a good-sized chicken uncooked, cut it in pieces and fry it for ten minutes with half an onion. Add three pints of white stock, a quarter of a cup of rice, a spray of parsley, half a bay leaf and one clove. Let the soup boil for 30 minutes. Remove the clove, bay leaf, parsley and celery, which should have been tied together in a bouquet. This chicken may be improved by adding 12 okras cut in fine pieces or half a cup of tomatoes, stewed and strained, when it is put over to boil. The addition of a tablespoonful of boiled tongue or boiled ham, cut in dice just before the soup is taken up, gives a pleasant variety. In August, when Lima beans and fresh corn are in season, add a tablespoonful of the beans and two of the corn, with six okras cut in slices.

Strawberry Sauce.—Beat two ounces of butter to a cream, add, gradually, one cup of powdered sugar, then add one mashed strawberry, beat it well, add another, and so continue until the sauce is a beautiful pink. If the strawberries seem to give the sauce a curled appearance, add just a little more sugar; stand on ice to harden.

Banana and Lemon-Jelly Cream.—One-half box gelatine, one cup cold water, one pint boiling water, one cup of sugar, three-fourths cup lemon juice, one square inch stick cinnamon. Soak the gelatine in the cold water. Shave the lemon rind, using none of the white. Steep it with the cinnamon in the boiling water ten minutes; add the soaked gelatine, sugar and lemon juice, and when dissolved, strain into shallow dishes. When cold, cut in dice or break it up with a fork, put it in a glass dish in layers with sliced bananas. Pour a cold boiled custard over them, and cover with a meringue. Brown the meringue on a plate, and slip it off over the custard.

Chicken Pie.—Cut your chickens in pieces, wash them, and put them in a stewpan with salt and pepper, and water enough to nearly cover them. To each one, rub one ounce of butter in flour, and add it to the gravy when the chickens are done; let it boil a few minutes. Make a rich paste, line the sides of your pie dish, put in the chickens and half the gravy, cover the pie with the paste; leave an opening in the center, and ornament the top with paste cut in flowers, or bars twisted and laid across the center. When the crust is done take out the pie, pour in the remainder of the gravy, and send it to the table in the dish it is baked in. If all the gravy is put in at once it will be apt to boil over the top and disfigure the lid of the pie.

Sponges.

Whether a sponge is to be classed as an animal or a vegetable is still a much disputed question. The sponges which you use do not seem to have much life in them, do they? And they certainly do not look much like any animal with which you are familiar. Yet these sponges are hatched from tiny eggs thrown off every spring by the parent sponge, and these atoms grow by and by to be big sponges like their mother. And although wise men have not quite agreed upon the subject, most of them have decided that sponges do belong to the lowest form of animal life, just one small step above the vegetable.

And these sponges are found of all sizes, from the small specks—the baby ones, you know—up to the huge fellows of three or four feet high. When the sponges are first hatched, they spend a couple of days floating about in the water. Then they proceed to attach themselves to rock or shells, or any convenient place, where they hold on fast and grow bigger and bigger all the rest of their lives, or until some sponge fisher comes along with a big knife or a long fork and cuts or tears them from their resting-place.

Sponges are obtained in various ways, and in many different places in the world. Large quantities are found in the Mediterranean and the Red seas. Many are got in the Gulf of Mexico, and a long paper has been furnished lately to the State Department showing the great extent and value of the sponge trade of the Bahama islands.

In the Bahamas the sponge trade is an important industry. Very large numbers of people are employed in these islands in the work of gathering the sponges, handling them, clipping, washing and preparing them for market. From 5000 to 6000 persons are usually engaged, most of them, excepting the ship owners, brokers and shippers, being natives—black men.

Sponges are found either in shallow or deep water. In shallow water they are dragged off the rocks by a three-pronged fork with a long handle. The finest and most valuable sponges are found in deeper water, and divers go down to obtain them. The diver cuts them off from the rock carefully, being particular not to tear them. These are the most expensive sponges.

The amount of money made by the men who gather the sponges depends entirely upon the number they get. The work is very laborious, the prices paid are low, and the sponge gatherer who makes over $300 a year is a rare exception. The men who do the work on land of getting the sponges ready for market are paid about 50 to 75 cents per day, so it is not likely they amass a large fortune at the business.

Around these islands about 500 small vessels are employed in the trade. These vessels, being filled with the men who do the work, cruise about until they have gathered and prepared a good cargo of sponges.

The usual method employed in the Bahamas is by the fork or hook, such as is used in the East. At one time dredges were introduced, but their use has lately been discontinued. The dredge was found to break off and destroy the young and unsalable sponges, killing the spawn and working great mischief. These smaller sponges are never taken, but are allowed to remain and grow to a large size. An act was passed forbidding the use of dredges.

Great care is taken to protect the cultivation of sponges. The industry is of great value to the natives.

A sponge seems a little thing. It is like many another trifle, to which we have become so used that we no longer think of them as luxuries—more as necessities.

Yet their service to us involves the labor of thousands of people in far-away countries—people who supply their own needs and those of their families from their labor on these little things.—N. Y. World.

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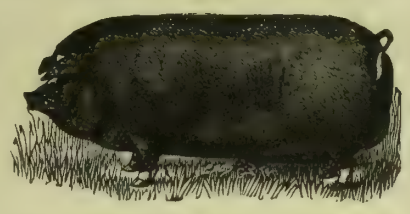

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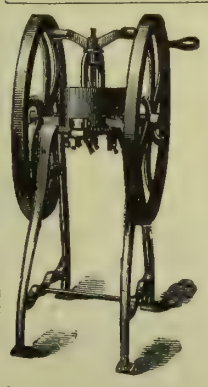

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WE WARRANT this machine to cut Dry or Green Bones, meat, gristle and all, by Hand Power, without clog or difficulty, or MONEY REFUNDED.
GREEN CUT BONE WILL DOUBLE THE NUMBER OF EGGS, will make them 25 per cent more fertile, and increase the vigor of the whole flock. COST OF FEEDING MATERIALLY LESSENED.
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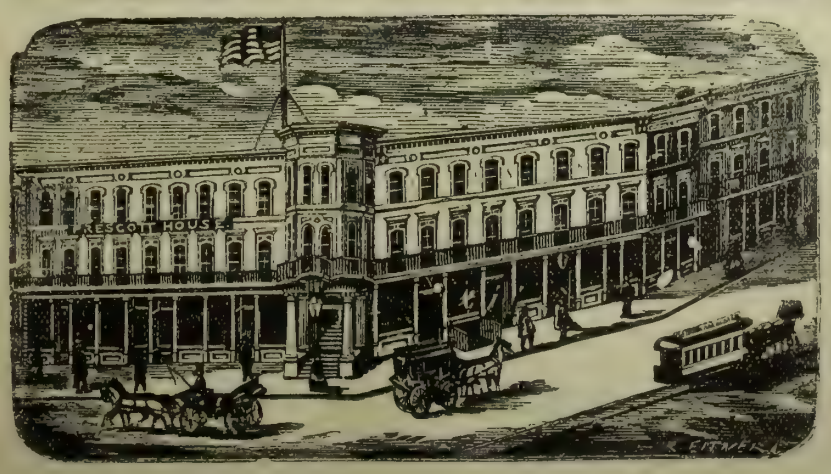

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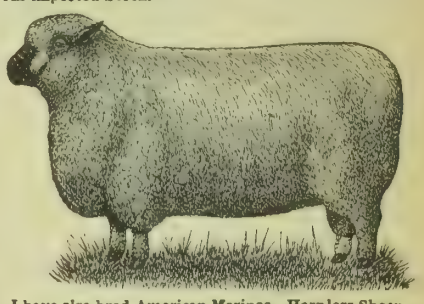

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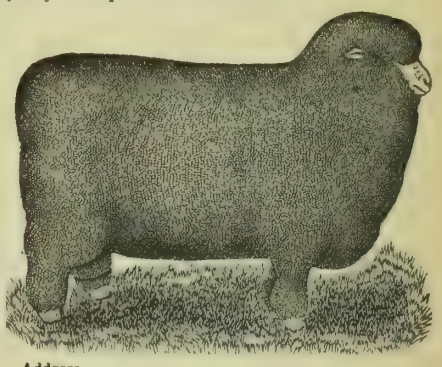

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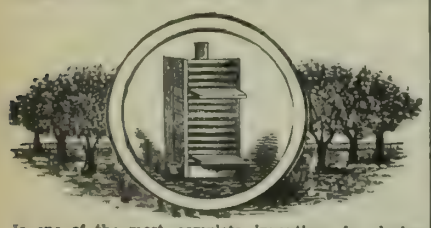

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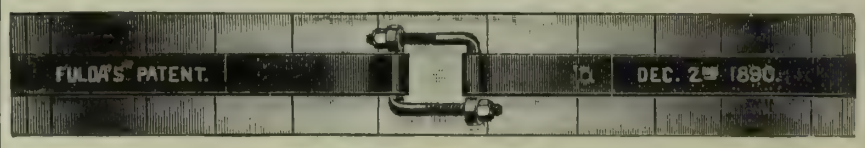

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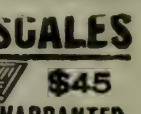

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S. F. Market Report

Market Review.

San Francisco, Aug. 17, 1892.

The local money market continues fairly easy, notwithstanding an increasing call for funds to meet advances on warehoused grain. From all we can learn, there will be no friction in the money market even if the demand for funds from the interior should be 50 per cent greater, and which it is likely to be, than it was in last season. Interior banks have been accumulating considerable surplus coin, which will aid very materially in meeting the largely increased requirements due to farmers holding grain rather than sell at present low range of values. The holding back of grain will be among the largest on record. Farmers feel justified in pursuing this course by reason of the large engaged and disengaged tonnage in port, a shortage in the world's crop, and last, but by no means least, a short crop in Oregon and Washington and a larger percentage in this State of poor to fair wheat than has obtained for several years past. Barley has held very strong for the more choice grades of bright, owing to the outlook being favorable for better prices. This opinion is based on a ten per cent shortage in the crop of the United States, only a fair crop abroad, and a decided falling off in the outturn in eastern Oregon and eastern Washington. Oats have ruled firm under moderate receipts and a good demand. Corn has been lifeless at around our quotations. Rye has been dull, but fairly steady. Heavy receipts of bran from up north caused lower prices in this market. For other groundfeed the market was unchanged. In garden-truck there was a decided falling off in the price of tomatoes, owing to heavy receipts and canners not buying. Summer squash strengthened slightly, owing to light receipts and a better demand. The market for other garden-truck was essentially unchanged. Onions have been in heavy supply. Increasing receipts of poor to fair potatoes caused a lower range of values for off qualities, but choice held fairly strong under a good shipping and home inquiry. The attempt to advance the price of gilt-edged butter has failed, as we stated it would. The higher ranges at which the market was quoted brought in more liberal supplies, and a so caused many dealers to turn to fair to good grades and let gilt-edged severely alone. The receipts of pickled butter are increasing, but as yet the trade does not take hold of it. Considerable quantities of keg butter have been sent out on orders from many mountainous mining districts. Cheese has held steady. The receipts of Eastern have increased. The Eastern market, it is claimed, will do better before long. With heavy receipts of Eastern eggs the market for Californian eased off slightly. Many dealers take the former in preference to the latter. Warm weather combined with liberal supplies, at lower prices, of fresh vegetables and fruit, have created a light demand for fresh meat, and, under free offerings, the market for livestock, except for hogs, is offish. Hog product holds strong at the recent advance. The corner which is being run at Chicago bids fair to send prices still higher. Honey is coming in more freely, but buyers stand ready to take all received at full prices. For new crop hops, buyers have advanced their bids. It is claimed that from 18@20c is the range now bid by them. The short crop at the East and abroad favors growers. Mustard-seed is coming in more freely, and, as usual, buyers are trying to force the market to lower prices, notwithstanding the situation warrants the expecting of an active demand, owing to reports of a light crop abroad. Wool is reported essentially unchanged, although, judging from Eastern advices, the market is shaping itself toward the interest of holders. The cholera scare in Russia has cut off a source of liberal supplies for manufacturers, and, consequently, the coarser grades of wool are strong and slightly higher at the East. In the past week the poultry market made another of its erratic movements. On Thursday, Friday and Saturday choice old hens and roosters were forced to higher prices under strong competitive buying, but on Monday, although the receipts were light, the market was heavy, owing to buyers holding off. Yesterday, with freer receipts, prices fell back. Beans have held to strong prices under heavy shipments to the East and fair shipments to Mexico and Central American ports. The market for fresh fruit was overstocked with culls and rejects by eastern shippers. The bulk received being poor keepers, had to be forced on the market, and with the usual results—low prices and a general demoralization. At the lower prices, and with warmer weather, peddlers and dealers in second and third grade fruit have had a feast. They report heavier sales than at any time in this season. Canners were largely supplied with contract fruit, and only came in the market for something very choice, which, it is needless to say, is as scarce as hens' teeth, owing to the eastern demand. The market for new-crop dried fruit has ruled quiet but strong to buy and weaker to force sales. The general tone is healthy and in dryers' favor provided the curing and packing are A 1. Raisins are meeting with a good inquiry, and considerable quantities are being placed for October and November shipping. The market for nuts is strong, with the general tendency apparently to better prices, owing to short crops abroad. New-crop walnuts have been contracted at an advance on prices ruling at this time in 1891.

Markets by Telegraph.

Eastern Wool Markets.

New York, August 12.—Manufacturers are liberal buyers of wool at the present quotations. It is now the general belief that the market is as low as it is to be for some time. Dealers believe the future will be higher, but manufacturers think prices will not advance. Stocks are large and admit of good selections. The outlook for the goods market is very favorable, although the imports have been increasing of late. This is the time to stock up, and many are availing themselves of the unusual opportunities the market offers in the way of large assortments. Fleeces are particularly active. They are much lower relatively than either Australian or Territory wools. In quality they are much better than those offered last year. Delaine wools are quiet. A fair demand is noted for combing wools. Territories are moving well, but the demand is not active. Little is being done in either California or Oregon wools. Australians are rather quiet but prices hold very firm. Stocks, while light, are ample for all present requirements. They will be wanted before the new wools come forward. While quotations on carpet wools are unchanged, they are much firmer than last week.

New York, August 15.—Heavy supplies favor buyers; the offerings were never finer and the consideration prices were never so low. Manufacturers have large cloth orders to fill on a basis of recent rates, and they squelch all suggestions of advance, so sellers yield, solacing themselves with the enlarging possibility of "a good time comin' by and by." Foreign wools are held rather stiffer, as the cholera advent abroad may check the landing of receipts. The sales at New York were 656,000 pounds of domestic, and 300,000 of foreign; sales at Boston, 3 543,000 pounds of domestic, and 582,000 pounds of foreign. The Philadelphia market is steady.

Foreign Grain Review.

London, Aug. 15.—The Mark Lane *Express* says: English wheats were in large supply at an average of 6d lower. The wheat crop is expected to reach 8 250,000 quarters, about 500,000 under 1891. Barley promises an average yield, but of better quality than usual. The oat yield is 10 per cent below the average. The market for foreign wheats has varied. Indian advanced 3d; American was 3d higher and Russian 6d lower. An official estimate of the wheat crop of Russia places the yield at 35 000 000 quarters, 3,000,000 over the trade estimates and the report has shaken wheat prices in eastern Europe. The total yield of France is calculated at 36,000 000 quarters of fine milling wheat. Corn is a turn dearer; barley, beans and oats quiet. At to-day's market English and foreign wheats were 6d lower; barley and oats 3d lower; English and American flours 6d lower; corn firm.

California Wines.

New York, Aug. 15.—The season has greatly favored the use of California red wines, and the improved quality has regained much of the trade that fell away when poor stock was so indiscriminately pushed upon the market.

Eastern Dried Fruit Markets.

New York, Aug. 15.—Prunes and dried peaches, nominal. The confidence in raisins has not been restored, and the closing tendency is lower; bags, 4¾c free on board. The range for boxes is wide and uninstructive. Apricots are firm for prime. Several rejection cases have occurred. Moorparks are quoted at 14½c; Royal 11c for spot. Leading dealers evince no anxiety about the situation. The market is young and the assured outlet for all portable table goods promises an eventful wholesale trade.

New York, Aug. 17.—California dried fruits are more active and show better tone. Prunes at 9c, 60s to 90s, in sacks, sold fairly. Choice bleached apricots sold at 14½@14¾c spot. Some fair-sized parcels of raisins moved out at last week's prices.

Miscellaneous.

New York, Aug. 15.—Honey—With a known light crop the feeling here is sympathetic with coast rates for strained.

Hops—Sales of several hundred bales made a better show of trade than for some time past. Last prices rule strong, with some gain in second grades. Seventy-five bales went for export. Three bales of new Palmer's seedling brought 28c. Futures disclose more interest.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	Aug.	Sept.	Oct.	Nov.	Dec.
Thursday	6s 0½d	6s05½d	6s06½d	6s06¾d	6s 7¼d
Friday	6s05½d	6s04¾d	6s0[illegible]½d	6s 5¾d	6s06½d
Saturday	6s05½d	6s 5 d	6s 5¼d	6s6 d	6s 6½d
Monday	6s05½d	6s04¾d	6s06 d	6s06 d	6s 6½d
Tuesday	6s04¾d	6s.4½d	6s05 d	6s05½d	6s06½d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market for P. S.	Weather.
Thursday	34s9d	34s9 1	34s9d	Quiet.	.....
Friday	3[illegible] d	34s6d	34s6d	Weak.	Brilliant.
Saturday	34s6d	34s6d	34s6d	Cheaper.	....
Monday	34s6d	34s d	34s6d	Quiet.	.....
Tuesday	34s6d	34s6d	34s6d	Quiet.	Some rain.

To-day's cablegram is as follows:

Liverpool, Aug 17. Wheat—Cheaper to sell. California spot lots, 6s 10½; off coast, 34s; just shipped, 34s 3d; nearby due, 34s; cargoes off coast, quiet; on passage, rather easier; Mark Lane wheat quiet; French country markets, mostly turn cheaper; weather in England, hot.

New York.

The following shows the closing prices of wheat for the past week:

Day.	Aug	Sept.	Oct.	Dec.
Thursday	138⅝	139¾	....	146¼
Friday	....	138⅞	14[illegible]	14[illegible]
Saturday	....	139	141	14[illegible]
Monday	....	138¾	140½	145¼
Tuesday	....	137¾	139½	144½

The following are to-days' telegram:

New York, Aug 17.—Wheat—82½c for August, 83⅝c for September, and 86½c for December.

Chicago, Aug. 17.—Wheat—76½c for September and 86½c for December.

San Francisco.

WHEAT.

	Seller '92.	Buyer Aug.	Buyer Sept.	Buyer Oct.	Buyer Dec
Thursday, high st.	136½	137	138	....	14[illegible]
" lowest	136⅝	137	137¾	....	142½
Friday, highest	....	....	136¾	....	141⅞
" lowest	....	....	136¼	....	141½
Saturday, highest	136½	....	137	....	142⅜
" lowest	13[illegible]	....	136⅞	....	142
Monday, highest	136⅝	....	....	....	142
" lowest	136½	....	....	....	141⅞
Tuesday, highest	13[illegible]	....	....	....	142
" lowest	136¼	....	....	....	141⅜

The following are to-day's recorded sales on Call:

Wheat—Morning Informal—Buyer December 500 tons, $1 40¾. Seller 1892 500 tons $1 3[illegible] ctl. Regular session. 300 tons, $1.40⅝; 3 0, $1.40½; 40, $1 40¾. Seller 1892, new 200 tons, $1.35½; 700, $1 3[illegible] ctl. Afternoon Buyer December—200 tons, $1.40¾. Seller 1892—5.0 tons, $1.3[illegible] ctl.

BARLEY.

	Seller '92.	Buyer Aug.	Buyer Sept.	Buyer Oct.	Buyer Dec
Thursday, highest	93¾	....	....	....	98¾
" lowest	93	....	....	....	98½
Friday, highest	9[illegible]	....	....	....	99[illegible]
" lowest	93⅝	....	....	....	99[illegible]
Saturday, highest	93¾	....	....	....	99½
" lowest	93⅝	....	....	....	99
Monday, highest	94	....	....	....	99
" lowest	94	....	....	....	99
Tuesday, highest	9[illegible]	....	....	....	98⅞
" lowest	93⅞	....	....	....	98¼

The following are to-day's recorded sales on Call:

Barley—Informal—December—9[illegible]0 tons, 9[illegible]c. Buyer December 100 tons, 9[illegible]c; 1 0, 9[illegible] ctl. Regular session.—Seller 1892, new—100 tons, 93c; 100, 92½c; 100, 92½c; 100, 92[illegible]. December—400 tons, 97½c; 700, 97½c ctl. Afternoon—Seller 1892, new—200 tons, 92½c; 100, 92⅝c; 200, 92¾c ctl.

General Remarks and Statistics.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending Aug. 16, '92, were as follows:

Flour, qr. sks	110,135	Bran, sks	13,392
Wheat, ctls	21,98	Buckwheat "	.....
Barley, "	83,266	Middlings "	2,763
Rye, "	2,595	Chicory, bbls	110
Oats, "	7,789	Hops, "	....
Corn, "	1,539	Wool, "	1,091
*Butter, "	502	Hay, ton	4,814
do bxs	1,038	Straw, "	232
do bbls	64	Wine, gals	170,490
do kgs	126	Brandy, "	9,50
do tubs	2	Raisins, bxs	305
do ½ bxs	20	Honey, cs	200
†Cheese, ctls	846	Peanuts, sks	....
do bxs	18	Walnuts "	168
Eggs, doz	21,800	Almonds "	..
do "Eastern	12 810	Mustard "	671
Beans, sks	10 726	Flax "	....
Potatoes, sks	24,270	Popcorn "	....
Onions, "	3,38	Broom corn, bbls	....

*Overl'd, 356 ctls. † Overland, 718 ctls.

Exports by Sea from San Francisco from July 1 to Aug. 10

	1892-93	1891-92
Wheat, ctls	901,050	1,801,332
Flour, bbls	7,463	12,336
Barley, ctls	125,754	120,17[illegible]

Tonnage Movement.

The arrival of deep sea vessels has been free. Several charters were made the past week at around 25s iron f. o. Vessels are receiving fair dispatch.

From reliable advices up to Aug. 10, the following summary tonnage movement is compiled:

	On the way 1892.	On the way 1891.	In port 1892.	In port 1891.
San Francisco	249,246	378,139	*179,15	80,300
San Diego	20,131	24,677	8,748	.....
San Pedro	5,8 8	6,848	1,338	14,217
Oregon	51,010	46,145	26,632	
Puget Sound	25,980	22,992	.....	
Totals	352,775	478,701	215,733	94,517

*Engaged for wheat, 1892, 67,559; 1891, 68,604.

Cereals.

London mail advices to August 1st report that there are no material differences in the advices just received from France and those which were placed before our readers last week. The total wheat yield is reckoned by a very good authority at 36,000 000 qrs. and the rye crop at 8,000,000 qrs. Of barley and oats we have no estimate at present, but both crops were of rather over average promise jus before reaping. Thrashings of the new wheat crop are going on in Spain and Italy, and are said to be giving less even results than at first anticipated. The production in Hungary is only a trifle larger than last year; in Portugal the indications are that imports will have to be nearly 4 000 000 bushels this year. In France the outturn is decidedly irregular, and in the United Kingdom very little to be bragged of. The production in the principal grain districts of Germany is understood to be irregular. India is 60-000 000 short of last year. The United States is at least 100,000 bushels short of last year, and recent advices have indicated even a smaller outturn. The crop of corn and oats will be much short of last year, although large stocks of all will be carried over.

In regard to the condition of the crops in Russia, it is stated that autumn-sown grain will, on 60 per cent of the area, give a medium, and on 40 per cent a decidedly bad outturn. The production of wheat last year in Russia was about 176 000,000 bushels. On the above estimate of condition it is thought the yield this year will be 184,000 000 to 192,000 000 bushels. The outturn of rye last year was about 520,000,000 bushels, and at the best this year it is thought that the outturn will be only 40,000 000 bushels more. If these statements are correct, it is difficult to see how Russia can be a free exporter of grain this year, as stocks are materially reduced in Russia and they begin the year on the famine basis.

The United States Agricultural Department returns for the month of July show the following acreage: Spring wheat 13,375,000 acres; winter wheat 26,315,000; corn, 72,851 000; oats, 25,331,000 and cotton, 17,350 000. The acreage in 1891 was: Spring wheat 13,395,000 acres; winter wheat, 26 581 000; corn, 76 204,000; oats, 25,581 000, and cotton, 2[illegible],779,000. The July report indicated the following yields, compared with the actual in previous years:

	1892.	1891.	1890
Winter wheat	345,000,000	392 499,000	255,374,000
Spring wheat	180,000,000	219,285,000	143,888 000
Total	525 000,000	611,7[illegible]0,000	399,262 000
Oats	654,0 0 000	738,000,000	523 621 000
Rye	31 0 0 000	33,000 000	28,000 000
Barley	70 000 000	75,000,000	63 000 000
Corn	1,690,000,000	2,060,154,000	1,489 970,000

If the condition of corn is reduced, as popularly expected, the yield per acre, which by the last report of 81.1 was equal to 23.3 bushels per acre, will be correspondingly reduced. A condition of 79 would mean 22.7 bushels, a condition of 77 a yield of 22.2 and a condition of 75 a yield of 21.5. The yield of oats by the last report of 87.2 was equal to 25.8 bushels per acre. A reduction to a yield of 85 would indicate a yield of 25.2 and a condition of 80, 23.9. The condition of spring wheat was 90.9 and the promised yield 13.4 bushels. A condition of 93 would indicate a yield of 13.8 and a condition of 89 would indicate a yield of 13.2.

The local market was subjected the past week to a strong bear pressure and still lower prices for silver abroad, but with a large engaged tonnage in port and exporters wants at times big urgent, gave strong support to the better grades of wheat. Farmers' deliveries at the various warehouses in the interior are very large, but against the larger proportion advances are asked, which shows that holders are not prepared to sell. New York and Chicago mail advices to August 12th report that thrashing in several of the States is disappointing. The light yield has caused lower estimates of the total outturn. The majority of well-informed writers on crop outturns now place the total yield this year at about 50,000,000 bushels.

Barley has met with a continued active demand for shipping to New York and Liverpool. The low freight rates by rail to New York favor shippers. All present information points to a very large increase in the exports this season owing to a short crop in the central and eastern States of both barley and oats. The foreign crop, while larger than in last year, is not a full average. The crop in both Oregon and Washington is short, so that but little can be expected from up north.

Oats have had strong support, and unless receipts should increase very materially, the market ought to do better. The consumption is larger and steadily increasing, but this usually obtains during fair times.

Corn has fairly held its own. There are indications that supplies are being concentrated. The demand from Mexico and Central America is light.

Rye holds steady at the decline. Export buyers are in the market for choice grades, but they do not appear disposed to pay present asking prices.

Since writing the above we are informed that export buyers are in receipt of advices that the decline in wheat abroad is due to the low and falling market for silver, which allows importers of Indian and Russian wheat to sell lower and then make money. It is also claimed that exporters are after a higher grade of wheat in our market so as to bring their shipments up to a higher standard. In other words, they are loaded up with poor wheat and want something better than No. 1 shipping, and by bidding lower for the latter they expect to get choice to gilt-edged for less money. Farmers are not offering their better grades.

The market to-day was weak and lower for wheat and barley, under freer offerings and buyers bidding down. The offers of wheat are nearly entirely off grades, and for which there are no buyers except at lower prices.

Ground Feed.

The demand for groundfeed is enlarging as natural pasture falls away. The feeding of rolled barley shows a large gain, which is accepted that it is growing in favor. Heavy receipts of bran and mill-stuff from Oregon is against the market for both bran and middlings.

The receipts of hay are larger than at any time in this year, but the quality is mostly poor to fair. Low freight rates offered by the railroad to farmers in the upper Sacramento valley cause heavier shipments to this city than usually obtain at this season of the year. These, of necessity, create a weak and irregular market for all grades not coming up to strictly choice.

Live Stock.

The offerings have been in excess of the demand for bullocks and mutton sheep. The hot weather and liberal supplies of vegetables and fruit at low prices are against the consumption of fresh meats. Hogs, if grain fed are wanted, and for which a slight advance is paid. Soft hogs are slow.

Dairy Produce.

Receipts of butter from up-coast ports have been quite heavy, and as the grade was generally choice to gilt-edged, the market suffered when it was offered for sale. The late advance in the market was ill-advised and, as is usual in such cases, has rected against the dairy interest. Fair grades of butter are scarce. Keg butter is moving off fairly free but pickled is neglected.

Poor to fair cheese is heavy and easy, but choice to gilt-edged has fair support in the obtainable supplies being only moderate.

Eggs have ruled fairly steady notwithstanding heavy receipts from the East. The increase in the latter has been offset by lights supplies of Californian.

The weather to-day is very hot, which, if continued for a few days, will cause gilt-edged firm butter to sell higher, for the bulk of receipts will be soft. Fresh-laid eggs from near-by points will also do better.

Fruit.

Canners were in the market to-day, and while prices were no better receipts cleaned up better on the wharf. At the stores there was an oversupply of culls and rejects. Very choice fruit cannot be found and for which buyers pay more money. Good keepers for shipping were wanted to-day. The hot weather will force the ripening of fruit.

There was a firmer feeling in dried fruit to-day.

Vegetables.

Very few bay tomatoes are coming in, but receipts of river have been very heavy, which, in the absence of large buying, broke the market. Green peppers and green corn have ruled weak and lower, but summer squash did better under light receipts. The market for other garden truck was essentially unchanged.

Onions have had poor support. Receipts have been heavy while the demand has been light. The Oregon crop is short.

Potatoes shaded off slightly the past week, with the closing barely steady. The receipts were composed largely of poor to fair grades, which met with a slow demand and caused concessions to induce buying. This naturally had its effect on the better grades in the absence of an active shipping demand. The crop of choice potatoes is light.

Miscellaneous.

Large and fat hens and roosters are scarce and wanted. The market on last Thursday moved up under light receipts and a good demand. It held strong on Friday and Saturday and barely steady since, with trashy stock selling lower. Young poultry was barely steady with, toward the close, lower prices quoted. A carload of Eastern poultry is due to-day and another is about due. This is against the market.

The supply of beans is light owing to continued heavy shipments out of the State. The market is firm for all kinds.

Buyers advanced their bids on hops. It is claimed that 20 cents is bid for some. The Eastern market is strong and higher in sympathy with European advices.

Fall wool comes in sparingly. The market, while reported unchanged, appears to be shaping in the interest of sellers.

There is a quiet demand for honey. It is said that for something extra, better prices are bid.

Mustard seed is offering more freely.

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

Wednesday, Aug. 17, 1892

Limes, Mex	3 00 @ 4 50	Fruit in bulk to canners:	
Do Cal	— @ —	Apricots, ℔ lb	1½ @ 3;
Lemons, box	1 00 @ —	Pears,	1½ @ 2;
Do Sicily choice	5 50 @ 6 50	Plums, white,	2@3;
Strawberries, per chest—		Peaches, freestone,	1½ @ 2½;
Longworth	5 00 @ 7 00	clings,	2@3. Extra choice
Sharpless	3 50 @ 5 00	fruit for special purposes sells	
Raspberries, ch.	6 00 @ 8 00	at an advance on outside	
Peaches, box	25 @ 50	quotations.	
Blkberries ℔ ch	2 50 @ 4 00	Beets, sk	— @ 75
Figs, blk box	1 00 @ 1 25	Carrots, sk	40 @ —
Do White do	50 @ 75	Extra dry, lb	15 @ —
Apples, Red Astrachan	50 @ 85	Do green box	40 @ 65
Do Gravenstein	75 @ 1 25	Parsnips, ctl	— @ 1 25
Crabapples	50 @ 75	Peppers, dry, lb	10 @ —
Canteloupes, pr crate	1 00 @ 2 00	Do grn Chili, bx	40 @ 50
Melons, pr 100	5 00 @10 00	Do do Bells	50 @ 75
Grapes, pr box		Turnips, ctl	75 @ —
Do White	40 @ 60	Cabbage, 100 lbs	60 @ 90
Do Black	50 @ 75	Garlic, lb	1½ @ [illegible]
Do Muscats	50 @ 75	Squash, Sum, bx	15 @ 25
Do Tokays	65 @ 1 00	Tomatoes,	— @ —
Prunes, Hung'n	40 @ 60	Do River lrg bx	15 @ 35
Do German	50 @ 65	String Beans, per sack	50 @ 75
Plums, ℔ box	25 @ 50	Cucumbers, box	15 @ 30
Pears	— @ —	Mushrooms	— @ —
Do Bartlett culls	35 @ 65	Egg Plant, box	45 @ 65
Do do choice	90 @ 1 25	Green Corn, sk	— @ —
		Do Santa Bay pdz	8 @ 12½
		Do Berkely box	25 @ 50

Live Stock.

BEEF.		MUTTON.	
Stall fed	5½@—	Wethers	7 @—
Grass fed, extra	5½ @—	Ewes	6½@—
First quality	4½ @ —	Do Spring	8 @—
Second quality	4 @—	HOGS.	
Third quality	3½ @ -	Light, ℔ lb, cents	[illegible]@—
Bulls and thin Cows	2 @—	Medium	5½ @—
VEAL.		Heavy	5 @ -
Range, heavy	4 @—	Soft	4½@ -
Do light	5 @ -	Feeders	3½ @—
Dairy	6 @—	Stock Hogs	3½@—

Grain and Wool Bags.

Calcutta, spot	[illegible]@	6
Wool Bags	36 @	38

Continued on next page.

General Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lowe quotations.

WEDNESDAY, Aug 17, 1892

BEANS AND PEAS		Sonora	1 30 @ 1 41½
Bayo, ctl	2 85 @ 3 15	**HOPS.**	
Butter	2 50 @ 3 00	1892 Bid	18 @ 20
Pea	2 40 @ 2 65	**FLOUR**	
Red	2 65 @ 2 85	Extra, City Mills	4 40 @ 4 65
Pink	2 35 @ 2 50	Do Country Mills	4 30 @ 4 65
Small White	2 35 @ 2 50	Superfine	2 75 @ 3 10
Large White	2 20 @ —	**NUTS—JOBBING.**	
Lima	3 00 @ 3 20	Walnuts, Cal. ℔	6½ @ —
Fld Peas, blk eye	1 50 @ 1 70	Do Choice	8½ @ —
Do green	1 50 @ 2 75	Do paper shell	9½ @ —
Do Niles	1 30 @ 1 40	Almonds, sft shl	11 @ —
Split	4 50 @ 5 00	Paper shell	14 @ —
BUTTER.		Hard Shell	6 @ 7½
Cal. Poor to fair, ℔	15 @ —	Brazil	9 @ 10
Do good to choice	18 @ —	Pecans small	11 @ 13
Do Gilted sd	— @ 23	Do large	14½@ 16
Do Creamery rolls	— @ 24	Peanuts	3½ @ 4½
Do do Gilt edge	— @ 25	Filberts	11 @ —
Eastern	16 @ 17	Hickory	7 @ 8
CHEESE		Chestnuts	11½ @ 16
Cal. choice cream	9 @ —	**ONIONS**	
Do fair to good	7½ @ —	Silverskin	30 @ 50
Do gilt edged	— @ 10	**POTATOES.**	
Do skim	5 @ 6½	Early Rose, ctl	40 @ 55
Young America	— @ 11	Peerless	45 @ 65
EGGS.		Garnet Chilies	50 @ 70
Cal. "as is," doz.	16 @ 18	Burbank Seedlings	45 @ 65
Do shaky	12½@ 14	Do do culls	75 @ 1 00
Do candled	19 @ 23	Extra choice sell for more money.	
Do selected	23 @ 25	**POULTRY.**	
Do fresh laid	26 @ 29	Hens, doz	6 50 @ 8 00
Do do selected	— @ 30	Roosters, old	6 00 @ 7 50
Eastern "as is"	15 @ 17	Do young	5 00 @ 7 00
Do candled	18 @ 20	Broilers, small	2 00 @ 3 00
Do selected	22 @ 24	Do large	3 00 @ 4 00
Outside prices for selected large eggs and inside prices for mixed sizes—small eggs and hard to sell.		Fryers	4 00 @ 5 00
FEED		Ducks	4 00 @ 4 75
Bran, ton	16 00 @17 00	do, large	5 00 @ 5 50
Feedmeal	27 00 @28 00	do, extra large	6 00 @ —
Gr'd Barley	20 50 @22 00	Geese, pair	1 25 @ 2 00
Middlings	20 00 @21 00	Goslings	— @ —
Oil Cake Meal	— @25 00	Turkeys, Gobbler	19 @ 21
Manhattan Food ⅌ cwt.	7 50 —	Turkeys, Hens	16 @ 18
HAY		All kinds of Poultry if poor or small, sell at less than quoted; if large and in good condition, they sell for more than quoted.	
Wheat, per ton	8 00 @ —	Manhattan Egg Food ⅌ cwt.	11 50 @ —
Do choice	— @12 50	**PROVISIONS.**	
Wheat and Oats	8 50 @11 00	Cal. Bacon, he'vy, ℔	11 @ 11½
Wild Oats	8 00 @11 00	Medium	12 @ 13
Cultivated do	7 00 @10 00	Light	13½ @ 14
Barley	5 00 @ 9 00	Lard	8 @ 11
Alfalfa	7 00 @ 9 00	Cal. Sm'k'd Beef	11½@ —
Straw, bale	40 @ 55	Hams, Cal salt'd	12½ @ 14
GRAIN, ETC		do Eastern	15 @ 16
Barley, feed, ctl	87½ @ 92½	**SEEDS.**	
Do Choice	93½ @ —	Alfalfa	— @ —
Do Brewing	1 00 @ —	Clover, Red	14 @ 15
Do do Choice	1 05 @ —	White	20 @ —
Do do Gilt edge	1 07½@ —	Flaxseed	2 00 @ 2 25
Do Chevalier	— @ —	Hemp	3½@ 4
Do do Gilt edge	— @ —	Mustard, yellow	3½ @ 4
Buckwheat	— @ —	do Brown	2½ @ —
Corn, White	1 35 @ 1 37½	**WOOL.**	
Yellow, large	1 27½ @ 1 30	Spring, 1892.	
Do small	1 32½ @ 1 35	Humb't & Men'cino	17 @ 21
Oats, milling	1 52½ @ —	Sac'to valley	16 @ —
Feed, Choice	1 40½ @ —	S Joaquin valley	11 @ 16
Do good	1 37½@ —	Oala'v & F'th'll	16 @ 21
Do fair	1 55 @ —	Oregon Eastern	12½ @ 19
Surprise	— @ —	do valley	18 @ 23
Black Cal	— @ —	So'n Coast, def.	10 @ 12
Do Oregon	— @ —	Nevada (State)	15 @ 19
Gray	— @ —	**HONEY.—1892 Crop.**	
Rye	1 30 @ —	White Comb, 2-℔	9 @ 12
Wheat, milling, Gilt edged	1 40½ @ —	do do 1-℔ frame	11 @ 14
Do Choice	1 42½ @ —	White extract'd	6½ @ 7½
Do fair to good	1 40 @ —	Amber do	6 @ 6½
Shipping, ch'ce	1 38½ @ —	Beeswax, lb	25 @ 28
Do good	1 35 @ —		
Do fair	1 31½ @ —		
Common	1 27½@ —		

Dried Fruits.

The quotations given below are for average prices received by commission merchants for consignments by growers. Something very fancy fetches an advance on the highest quotations while poor sells slightly below the lowest quotations. Prices, unless otherwise specified, are for fruit in sacks; add for 50-lb. boxes ¼c per lb., and for 25-lb boxes, ½c to 1c per lb

APPLES—1892.		Do do fancy	13 @—
Sun-dried, ¼'s, com'on	2½@ 3½	Sun-dr, pl'd, prime, bl	—@—
Do do prime	3½@ 4	Do do choice	—@—
Do do choice	4 @ 4½	Do do fancy	—@—
Do diced, common	3½ @ 4	Evap, peeled, in boxes, choice	—@17½
Do do prime	4 @ 4½	Do do fancy	—@20
Do do choice	4½ @ 5½	**PEARS—1892.**	
Evap, bleached, ring, 50-lb boxes	6½@ 7	Sun-dried, quarters	—@ 3
APRICOTS 1892.		Do sliced	4 @ 5
Sun-dried, unbl. com.	4 @ 5	Evap, sliced, in boxes	7 @ 8
Do do prime	6 @ 7	Do ring do	9 @10
Do do choice	8 @ 9	**PLUMS 1892.**	
Do bleached, prime	11 @—	Pitted, sun-dried	7 @ 8
Do do choice	12@—	Do evap, boxes, choice	—@—
Do do fancy	13@—	Do do do fancy	—@—
Evap, choice, in boxes	13½@ —	Unpitted	—@—
Do fancy, do	14 @—	**PRUNES—1892.**	
FIGS—1892.		Cal. French, ungraded	7½@ 8
Sun-dried, black	4½ @ 5	Do graded, 60 to 100	8½@ 9
Do white	—@—	Do do 40 to 60	11 @12
Do do washed	—@	Fancy sell for more money.	
Do do fancy	—@—	**RAISINS 1892.**	
Do do pressed	—@—	London Layers, cluster, ⅌ bx	1 90 @2 00
Smyrna boxes	—@—	Do choicest do	1 60 @1 70
Do sacks	—@—	Do prime, ⅌ bx	1 40 @1 45
GRAPES—1892.		Loose Muscatels, common, ⅌ bx	—@—
Sun-dried, stemless	3½@	Do choice, do	1 25 @1 30
Do unstemmed	1½ @ 2	Do fancy, do	—@—
NECTARINES—1892.		Unstem'd Muscatels, in sacks, ⅌ ℔	4 @ 5½
Red, sun-dried	—@—	Stemmed do do	—@—
Do Evap., in boxes	—@—	Seedless do do	—@—
White, sun-dried	—@—	Do ⅌ 20-lb bx	—@—
Do evaporated	—@—	Sultanas, unbl, bxs	—@—
PEACHES—1892.		Do bleached, in bxs	—@—
Sun-dried, unpeeled, common, bleached	8 @—	Halves, quarters and eighths 25, 50 and 75 cents higher respectively than whole boxes	
Do do prime, do	10 @—		
Do do choice, do	11½@—		
Do do fancy	12 @—		
Evap, unpe'l'd, choice	12½@—		

Twine and Baling Rope.

BALE ROPE.		**TWINE.**	
Sisal, 3 yarns	9	Pure Manila Hop, in balls, tarred	11½
Do, 2 yarn, solid	9	Do, Grape-Vine, in balls or coils	12
Duplex, 3 yarns	9	Do, Sp ing	16
Manila, 3 yarns, heavy	10½	Duplex Hop, in balls, tar'd	9½
Pure Manila, 3 and 4 yarns	12	Do, Grape Vine, in balls or coils	10½
Do, 2 yarns, light	12½		

Wine.

Red and White Wine from bay counties, vintage of 1891, per gal. 10 @ 15

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription, paid in advance, 6 mos, $1; 10 mos., $2; 15 mos., $3. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

Auction Sales of California Fruits.

At New York.

Aug. 11.—Three carloads: Bartlett Pears, $2 30@3; Congress Pears, $2.45; Tuscan Cling Peaches, $1.25; Mary's Choice Peaches, $1 30; Crawford Peaches, $1.10 @1.30; Susquehanna Peaches, $1.10@1.40; Centennial Peaches, $1.90; Orange Cling Peaches, $1.35; Burton Cling Peaches, $1.60; Victoria Plums, $1@1.35; Yellow Egg Plums $1.25@1.70; Columbia Plums, $1 40@1 50; Petit Plums, $1.20; Kelsy Japan Plums, $1 60; P. D. Plums, $1.40; Washington Plums, $1.25; Bohemian Plums, $1 40@1 50; Fontainebleau Grapes, half crates, $1.40@1.65; Tokay Grapes, half crates, $2; Muscat Grapes, half crates, $1 90; Red Nectarines, $1.60; French Prunes, $1 60; Gros Prunes, $1.45; German Prunes, $1 50; Purple Prunes, $1.20.

Aug 12.—Eight carloads: Bartlett Pears, $1 80@2.90; half boxes, $1 22; Clapp's Favorite Pears, $2 10; Peaches, $1 10@1 35; Crawford Peaches, 90c@$1.80; Late Crawford Peaches, $1.25@2 40; Cling Peaches 40c @$1.35; Muir Peaches, $1.10; Susquehanna Peaches, $ .75@1.90; Foster Peaches, $1.10@1 25; Grapes, $1.20@1.60; Fontainebleau Grapes, 60c@$1.50; Nectarines $1.15@1 30; Red Nectarines, $1.50; P. D. Plums, 90c@$1.40. Columbia Plums, 40c@$1 55; Japan Plums, $1.75 @5; Egg Plums, 80c@$1.80; Plums, $1.06@1.40; Golden Drop Plums, $1@1.75; Washington Plums, 60c@$1.15; Diamond Plums, $1 15; Bradshaw Plums, $1.05@1 60; Gros Prunes, $1.10@2.65; German Prunes, $1 60@2; French Prunes, $1 30; Bulgarian Prunes, $1.55; Italian Prunes, $1.15; Fellenberg Plums, $1.25@1.35.

Four carloads: Sacramento River Bartlett Pears (overripe) $1.90@3 40; Crawford Peaches, $1@1.65; Susquehanna Peaches, $1.15@2.55; Foster Peaches, $1.15 @1.50; Tuscan Cling Peaches, $1.10@1 65; Japan Plums, $1 50@3 50; Plums, 65c@$1 55. Weather very hot. Fruit in ventilator cars arriving overripe.

Aug. 12.—Four carloads: Black Malvoise Grapes, half crates, $1 70; Fontainebleau Grapes, $1.10@1 40; Bartlett Pears, $2 20@3 15 half boxes, $1 25@1 60; Susquehanna Peaches, $1.10@1.35; Crawford Peaches, $1 @1.40; Orange Cling Peaches, $1.20@1 25; Centennial Peaches, $1.70; Muir Peaches, $1 15; Yellow Egg Plums, $1 05@1.60; Columbia Plums, $1 05; Bradshaw Plums, $1.05, Gros Prunes, $1.35.

Aug. 13.—Four carloads: Tuscan Cling Peaches, $1.20; Crawford Peaches, 95c@$1 75; Late Crawford, $1.30@1.65; Peaches, 35c@$1.90; Foster Peaches $1.15 @1.90; Susquehanna Peaches, $1.15@2.55; Cling Peaches, $1 05@2 30; Nectarines, 65c@$1.35; Bartlett Pears, $1 90@2.40; Bradshaw Plums, 90c@$1 35; Peach Plums, $1.05; Japan Plums, $1.50@3.50; Hungarian Prunes, $1 55; Red Grapes, $1.30; Grapes, 55c@$1.30, Plums, $1@1 50; Comedy Plums $1.05; German Prunes, $1 30; Wheatland Peaches, $2.23; Gros Prunes, $1.10@ 1.70; P. D. Plums, 75c@90c; Egg Plums, 80c @$1 65.

Four carloads: Bartlett Pears, $2.55@3; Peaches, $1.50@1.55; Crawford Peaches, $1.45@1 80; Susquehanna, $1.80; Orange Cling Peaches, $1 50@1.55; Muir Peaches, $1 60; Columbia Plums, $1.15; Red Nectarines, $1.35; Grapes, $1 65

Aug. 15.—Seven carloads: Crawford Peaches, $1.05 @1.70; Susquehanna Peaches, $1.15@1 30; Orange Cling Peaches, $1.10@1.25; Wheatland Peaches, $1.35; Centennial Peaches, $1 50; Muir Peaches, $1.10@1.20; Foster Peaches, $1.15; Tuscan Cling Peaches, $1.10@ 1 30; Yellow Egg Plums, $1.10@1 95; Bradshaw Plums, $1@1.40; German Prunes, $1 15@1.75; Gros Prunes, $1.50@1.70; French Prunes, 95c@$1 30; Italian Prunes, $1.50, Fellenburg Prunes, $1.50; Fontainebleau Grapes, half crates, $1.15@1.50; Black Malvoise Grapes, half crates, $1 40; Tokay Graces, half crates, $1.80; Muscat Grapes, half crates, $1.10@1.80; Brunswick Figs $1.40; Bartlett Pears, $2.20@3 35; Congress Pears, $2 65.

Aug 15 —Ten carloads: Bartlett Pears, $2 30@3 35; Beurre Hardy Pears, $2 25; Cling Peaches, $1 25@1.70; Susquehanna Peaches, $1.35@1.70; Early Crawford Peaches, 95c@$2 20; Late Crawford Peaches, $1.25@ 1.60; Peaches, $1.70@1 90; White Peaches, $1 40; Foster Peaches, $1.10@1.35; Decker Peaches, $1.52; Muir Peaches, $1 20@1 45; Orange Cling Peaches, $1.30; Nectarines, $1.1 @1 20; Bradshaw Plums, $1.05; Japan Plums, $1 65@1 95; Gages, $1.10; P. D. Plums, $1.10; Comedy Plums, $1@1.05; Columbia Plums, $ @1.20; Gros Prunes, $1.65@2.15; Egg Plums, $1.45@1.75; German Prunes, $2@2 40; Golden Drop Plums, $1.35; Fellenburg Prunes, $1.75; Muscat Grapes, single crates, $1.05@1 35; Rose de Peru Grapes, $1 35; Fontainebleau Grapes, $1.35; half boxes Bartlett Pears, $1.25@1.35; one ventilated slow freight car Bartlett Pears heated, 65c@$1 35; Beurre Clairgeau Pears, heated $1 35@1.45. Gross sales ten cars, $13,607. Twenty-one cars of California fruit on New York market to-day.

At Chicago.

Aug. 11.—Two carloads: Bartlett Pears, $2.70@3.10; Susquehanna Peaches, $1 30@1 60; Crawford Peaches, $1.20@1.50; Muscat Grapes, half crates, $2.30.

Aug. 11 —Nine carloads: Gros Prunes, $1.75@1.95; Bartlett Pears, 2 30@3; Beurre Hardy Pears, $2.40@ 2.45; Egg Plums, $1.55@1.60; Grapes, $1 35@2 10; Bulgarian Prunes, $1 05; Silver Prunes, $1 30; Peaches, 80c@$1.75; Prunes, $1 10@1.30; Clapp's Favorite Pears, $2.15; Crawford Peaches, 95c@$ .50; Japan Plums, $2.25; Beauty Peaches, $2.20.

Aug 12.—Three carloads: Bartlett Pears, $3@3.30; Early Crawford Peaches, $1.05@1 40; Tuscan Cling Peaches, $1.05@1.10; Yellow Egg Plums, $1.30@1.65; Columbia Plums, $1 25@1.55; Bohemian Plums, $1.35; Washington Plums, $1.15@1 40; Quackenboss Plums $1.95; Bradshaw Plums, $1.15; Gros Prunes, $2@2 10; Fellenburg Prunes, $1.55.

Aug. 12.—Seven carloads: Bartlett Pears, $1.75@ 3.20; Busock Pears, $2 75; Peaches, $1.05@1.70; Grapes, $3; Egg Plums, $1.25@1.50; Gros Prunes, $1.70@2. Damson Plums, 70c; Prunes, $1.40; Golden Drop Plums, $1.05@1 40; German Prunes, $1.25@2.40; Bradshaw Plums, $1.30; Hungarian Prunes, $2; French Prunes, $1.10; Purple Duane Plums, $1 05; Comedy Plums, 95c; Beurre Hardy Pears, $ 70; Columbia Plums, $1 35; Susquehanna Peaches, 65c@$1.50.

Aug. 13.—Four carloads: Bartlett Pears averaged $3 per box; Crawford Peaches, $1@1 35; Muir Peaches, $1 05@1.25; Orange Cling Peaches, $1.25@1.35; Susquehanna Peaches, $1.25@1.35; Centennial Peaches, $1 25@1.45; Foster Peaches, $1 20@1 25; Morocco Peaches, $1.30; Elberta Peaches, $1.25; Tuscan Cling Peaches, $1.30; Yellow Egg Plums, $1.35@1.55; Kelsy Japan Plums, $1.50; Columbia Plums, $1 45; Purple Prunes, $1.45; French Prunes, $1.10; German Prunes, $1 10; Fontainebleau Grapes, $1 55@1.80.

Aug. 13.—Ten carloads: Bartlett Pears, $2@2.30; Beurre Clairgeau Pears, $2.10@2 30; Seckel Pears, $1.95 @2 15; Plums, 50c@$2; Gros Prunes, $1.20@1.70; Bulgarian Prunes, $1; Egg Plums, $1.15@1 40; Prunes, $1.05@2; Nectarines, $1.25; Peaches, 95c@$1 95; Cling Peaches, 65c@$ 50; Crawford Peaches, 90c@$1.50; Susquehanna Peaches, $1.15@1.50; Tuscan Cling Peaches, $1.05@1.35; Foster Peaches, 65c@$1.25 Grapes, $1.55@2 15; Tokay Grapes, $2 30@4 05; Muscat Grapes, $1.55@2.15; Decker Peaches, 80c; Dutchess Pears, $1.85@2.35.

Aug. 15.—Five carloads: Bartlett Pears, $2.50@3.05; Howell Pears, $2 30; Beurre Hardy Pears, $2.25; Gros Prunes, $1.50@1.80; Hungarian Prunes, $1.55; Fellenburg Prunes, $1 65; Italian Prunes, $1.50; German Prunes, $2. Yellow Egg Plums, $1.30@1.65; Washingington Plums, $1.10@1 15; Quackenboss Plums $1 50; Red Egg Plums, $1.25; Columbia Plums, 95c@$1 45; Magnum Bonum Plums, $1.10; Crawford Peaches, $1@ 1 40; Centennial Peaches, $1.50; Morocco Peaches, $1.15; Muir Peaches, $1.10; Susquehanna Peaches, $1.35@1.40; Orange Cling Peaches, $1.15@1.50; Stephens' Cling Peaches, $1.20; Fontainebleau Grapes, $1.45 @1.75; Muscat Grapes, half crates, $1 70@1.85.

Aug. 15.—Twelve carloads: Bartlett Pears, $2.05@ 3.15; Bartlett Pears, heated, 60c@$1 90; Hardy Pears, $2@2.30; Gros Prunes, 75c @$1.50; Plums, $1.05@1.25; Plums, heated, 30c; Seckel Pears, heated, 60c; Crawford Peaches, 60c@$1.20; Foster Peaches, $1.15@1.40; Egg Plums, $1.10@1 45; Egg Plums, heated, 65c; Silver Prunes, $1 25; Fellenburg Prunes 75c@$1.20; Peaches, $1.15@1.50; Peaches, heated, 65c; Nectarines, $1@1.10; Muscat Grapes, $1.75; Seedless Grapes, $1.30; Prunes, 75c@$1.45; Golden Drop Plums, 95c@$1.35; Japan Plums, $1@1.70; Grapes, 30c@$2 15.

At Boston.

Aug. 11 —Two carloads: Bartlett Pears, $2.20 @3.00; Yellow Egg Plums, $2@2.15; Bohemian Plums, $1 75@2; Bradshaw Plums, $1 90@2 40; Columbia Plums, $2; Crawford Peaches, 90c@$1.30; Red Nectarines, 95c; Fontainebleau Grapes, $1.10@1.65.

Aug. 12.—Two carloads: Bartlett Pears, $2.35@3; Yellow Egg Plums, $1.35@1 70; Crawford Peaches, $1.10@1.35. Some fruit overripe sold for less.

Aug. 13.—Two carloads: Bartlett Pears, $2 35; Gros Prunes, $1 70; French Prunes, $1.20; German Prunes, $1 40; Washington Plums, $1 40; Egg Plums, $1.65; Columbia Plums, $1.45; Green Gage Plums, $1.50; Victoria Plums, $1.20; Early Crawford Peaches, $1.10 @1.60; Tuscan Cling Peaches, $1.35; Stephens Cling, $1.30.

Aug. 15.—Three carloads: Early Crawford Peaches, $1.30@1.60; Late Crawford Peaches, $1.25@2 15; Lemon Cling Peaches, $1 45; Foster Peaches, $1.25; Orange Cling Peaches, $1 50; Yellow Egg Plums, $1.75; Petit Plums, $1 45; Columbia Plums, $1 40; French Prunes, $1.40; Bartlett Pears, overripe, $1 60@2 05; Fontainebleau Grapes, half crates, $1.35.

At Omaha.

Aug. 12.—One carload: Pears, $2.50@2.65; Peaches, $1.25@1.40; Foster Peaches, small, $1.

Aug. 13.—One carload: Pears, $2@2 75; Peaches, $1.25.

Aug. 13 —One carload: Peaches, $1.25@1.50; Pears, $2.50@2.75. Good demand.

Aug. 15.—Three carloads: Pears, $1.75@2.50; Plums, $1.50@1.75; Peaches, $1 10@1 40.

At Montreal.

Aug. 15 —Two carloads: Bartlett Pears, $3 60@4; Crawford Peaches, $2.10; Susquehanna, $1.30@1.40.

At Minneapolis.

Aug. 11.—Two carloads: Bartlett Pears, $2 50@2.65; Egg Plums, $2.45.

Aug. 12.—Three carloads: Pears, $2 30@2 60; Gros Prunes $2.40@2.50; Quackenboss Plums, $2.25; Peaches, $1.35@1.70; Plums, $2@2.55.

Aug. 15 —Three carloads: Peaches, $1.35@1.60; Muscat Grapes, single crates, $1 55@1.90; Plums, $1.25 @2.10; Beurre Hardy Pears, $2.40@2.45; Beurre Clairgeau Pears, $2.40@2 45; one car Bartlett Pears shipped ventilated cars, slow freight, bad order, Pears, $1@ 2 25.

Parental Responsibility.

The parent whose sole answer to criticism or remonstrance is, "I have a right to do what I like with my own child!" is the only impossible parent. His moral integument is too thick to be pierced with any shaft, however keen. To him we can only say, as Jacques did to Orlando, "God be with you; let's meet as little as we can."

But most of us dare not take this ground. We may not philosophize or formulate, we may not live up to our theories, but we feel in greater or less degree the responsibility of calling a human being hither, and the necessity of guarding and guiding, in one way or another, that which owes its being to us.

We should all agree if put to the vote that a child has a right to be well-born. That was a trenchant speech of Henry Ward Beecher on the subject of being born again; that if he could be born right the first time he'd take his chances on the second. "Hereditary rank," says Washington Irving, "may be a snare and a delusion, but hereditary virtue is a patent of innate nobility which far outshines the blazonry of heraldry."

Over the unborn our power is almost that of God, and our responsibility, like His toward us; as we acquit ourselves toward them, so let Him deal with us.

Why should we be astonished at the warped, cold, unhappy, suspicious natures we see about us, when we reflect upon the number of unwished-for, unwelcomed children in the world; children who at best were never loved until they were seen and known, and often grudged their being from the moment they began to be. I wonder if sometimes a starved, crippled, agonized human body and soul does not cry out: "Why, O man, O woman, why, being what I am, have you suffered me to be!"—Mrs. Kate Douglas Wiggin in Scribners.

PHOTOGRAPHING RIFLE BULLETS.—An interesting deduction drawn from Prof. Boy's successful experiments on the photography of rifle bullets in motion is that the blurring of photographic images, due to atmospheric disturbance, can in many cases be wholly eliminated. The bullets, which were photographed quite sharply, had an appreciably greater velocity of motion than that (upon the average) of the molecules of air. Therefore, with equally short exposure in the case, let us say, of solar photography, the image-forming light is received through a virtually motionless, although, of course, not absolutely homogeneous, atmosphere.

—Hicks—We've got something new at our house—a machine to wash dishes.

Wicks—And how does it work?

Hicks—Beautifully. It breaks on an average five dishes a day. Fact; you would hardly know it from a hired girl.—Transcript.

Agricultural Fairs.

State Fairs.

STATE.	PLACE AND SEC'Y.	DATE.
Oregon	Salem, J. T. Gregg	Sept. 12-17
California	Sacramento, Edwin F. Smith	Sept. 5-17
Washington	Spokane	Sept. 19-24
Nevada	Reno, C. H. Stoddard	
Western Washington Industrial Exposition	Tacoma	

District Fairs.

NO.	PLACE AND SEC'Y.	DATE.
1	Oakland	Aug. 15-20
2	Stockton	Sept. 19-Oct. 1
3	Chico, J. D. Sproul	Aug 23 27
4	Petaluma, Dr. Thos. Mackay	Aug. 29-Sept. 3
5	Santa Clara, George H. Bragg	Sept 26-Oct 5
6	Los Angeles	
7	Salinas City, J. J. Kelley	
8	Placerville, Thos. Fraser	Aug. 23-27
9	Rohnerville, G. Underwood	Sept. 19-23
10	Yreka, C. S. Smith	Oct. 5-8
11	Sierraville, Fred Blinman	Oct. 3-7
12	Lakeport, H. A McCraney	Sept. 27, Oct. 1
13	Marysville, G. R. Eckart	Aug. 28-Sept. 3
14	Santa Cruz, Oscar L. Gordon	Oct. 10-15
15	Bakersfield, J. J. Kelly	Oct. 11-16
16	San Luis Obispo, J. H. Barrett	Sept 27-Oct 1
17	*, I. J. Rolfe	Aug. 23-28
18	Independence, C. W. Craig	Sept. 27-30
19	Santa Barbara, H. B. Barstow	Aug. 23-27
20	Auburn, F. D. Adams	Aug. 30-Sept. 3
21	Fresno, J. M. Reuck	Sept. 26-Oct. 1
22	Escondido, G. M. Dannals	Sept. 21-24
23	Concord, F. L. Loucks	Aug. 29-Sept 3
25	Napa, D. L. Hackett	Aug. 22-27
26	Ione, C. T. La Grave	Sept. 27-30
27	Redding, H. R. Hodson	
28	San Bernardino	
30	Red Bluff, M. R. Hook	Aug. 16-20
31	Hueneme, T. H. Merry	Aug. 30-Sept. 3
32	Santa Ana, W. A. Beckett	Oct 3-7
33	Hollister, A. D. Shaw	Oct. 11-15
34	Susanville, C. E. Emerson	Sept. 3-7
35	Merced	
36	Vallejo	Aug. 27-30
37	Lompoc, W. I. Nichols	Sept. 20-23
38	Modesto	Sept. 28-Oct. 1
	—Glenn Co. Willows, W. V. Freeman	Aug. 9-13

*Stock exhibit and races will be at Glenbrook, and pavilion exhibit at Nevada City.

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The Efficient Left Hand.

Left-handers are notably of more than the average strength and much more than the average accuracy of the eye. Leonardo da Vinci and Hans Holbein were left-handed. Left-handed batsmen are noted for hitting, left-handed fielders for smartness, and left-handed bowlers are generally fast. We know a gentleman, not a straight bat, whose back play is a perpetual source of astonishment to the spectators. But now comes in a factor of unknown quantity. One would think that where conventional usage has obtained from the left-handed one particular set of motions for the right hand, it would be one requiring but average skill. But is this so? The three arts of cricket are distributed among left-handed people in the most arbitrary and apparently inconsistent manner; most of them bat left-handed, but many bowl with the right, and some bat with the right and bowl with the left. No doubt it would be found that, on the whole, those actions requiring the utmost nicety and the greatest accord between eye and limb are allotted to the superior hand; again, spontaneous gestures and unstudied actions would also be performed by the same hand.

It is a remarkable fact that with the majority of people the neglected left hand is not in mere strength inferior to the right. We have heard truly right-handed people actually declare that their left hand is the stronger, and from the present writer's own experience he knows this to be the case. This may be from the mechanical advantage and better balance of the body, the right side being heavier, or it may be due to the large muscles of the unused arm being less hampered by the development of other muscles. It is difficult in these cases to say which is the "right" hand, for the fact that the unused arm is the stronger does not imply ambidexterity, nor can we justly give the precedence to strength over dexterity.—Boston Transcript.

How Spectacle Lenses Are Made.—In the manufacture of spectacle lenses, says the *American Manufacturer*, the bit of glass to be formed into a lens is fastened by means of pitch to a small block of hard rubber, so that it may be held. It is ground by being pressed against a rapidly revolving cast-iron disc on a vertical spindle, and with curvature equal and opposite to that desired in the lens. This is the "rough tool," and is kept moistened with emery and water. Several grades of emery are used in succession, changing from coarse to fine as the grinding proceeds. The glass is then transferred to the "fine tool," made of brass, and compared from time to time to a standard curve to insure accuracy. In this second grinding the abrading material is rouge. Finally, the lens is polished by being pressed against a piece of cloth powdered with rouge and fastened to a rotating tool. The glass is now loosened from its block, turned over, and the reverse side of the lens ground. When this has been accomplished, the lens is placed on a leather cushion, and held firmly in position by a rubber-tipped arm, while a diamond glasscutter passing round an oval guide traces a similar oval on the glass below. The superfluous glass is removed by steel pincers and the rough edges are ground smooth on scotch wheels.

The Moon and the Barometer.—The influence of the moon on the barometer is dealt with by Mr. Bornstein in a recent article in the *Meteorologische Zeitschrift*. He refers to the question as to whether there exists any relation between the pressure of the atmosphere and the altitude of the moon. This study is based upon observations made at four different stations in Germany and Austria, and does not take into account the phases of the moon, or her distance from the earth, but considers merely the lunar day. The results obtained are: 1st, that the variations of pressure do not indicate any atmospheric tides, and 2d, that at three of the stations the pressure shows but one oscillation during the lunar day. At Berlin and at Hamburg the maximum takes place a little before the moon sets, and at Vienna, at the moment of least culmination, whereas the minimum takes place, at all the stations, at the moment of the moon's rising.

—The barber was addicted to habits of intemperance, so that on this occasion his hand was very unsteady at his work. In shaving the minister he inflicted a cut sufficiently deep to cover the lower part of the face with blood. The minister turned to the barber and said, in a tone of solemn severity:

"You see, Thomas, what comes of taking too much drink."

"Yes, sir," replied Thomas, "it do make the skin very tender."

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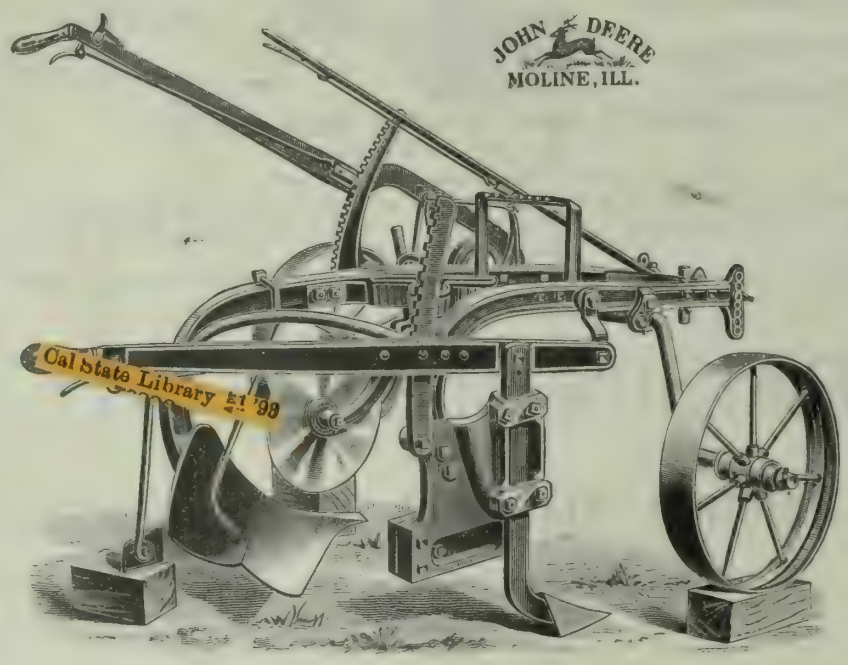

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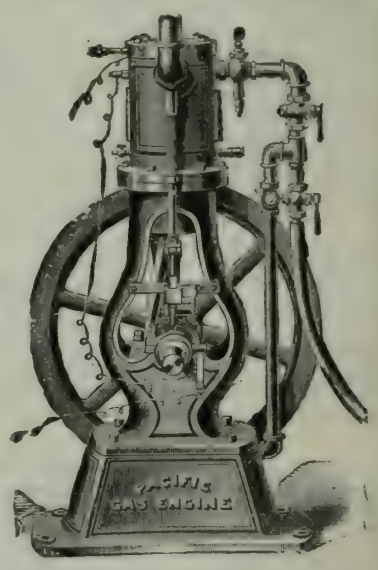

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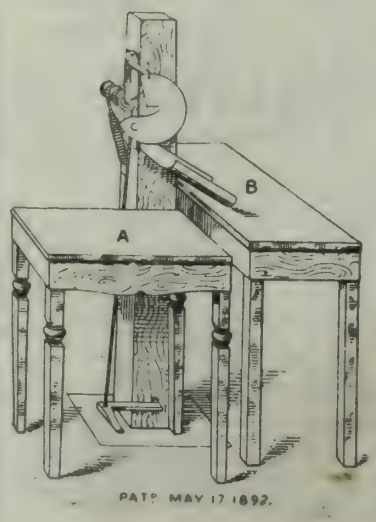

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PACIFIC RURAL PRESS

Vol. XLIV. No. 9. SAN FRANCISCO, SATURDAY, AUGUST 27, 1892. THE DEWEY PUBLISHING CO Office, 220 Market St.

California Viticulture at the World's Fair.

Our exhibit of viticulture at the World's Fair will be a success if the efforts of energetic, well-informed and withal popular representatives can make it so. Referring to the portraits upon this page we are disposed to add that our representatives are handsome as well as capable and devoted, and it is just as well, after all, to place in the eyes of the world, at Chicago, men of commanding and winning presence when these points can be combined with energy and ability.

HON. H. M. LA RUE, CHIEF OF VITICULTURE AT THE WORLD'S FAIR.

But one of the gentlemen shown on this page is more than a representative of California, he is chief of the viticultural division of the department of horticulture at the World's Fair. Thus he will have direct charge of grapes and grape products from all parts of the world, and will then have opportunity to show that a Californian can be upright and fair and appreciative of the efforts of others as well as of his own people. This too will be a good point to make for California, and the right man has been chosen to make it.

We are indebted to the *Pacific Wine and Spirit Review* for the portraits which we present on this page, and we shall draw from the same source some of the biographical notes which we shall introduce in connection with our own observations.

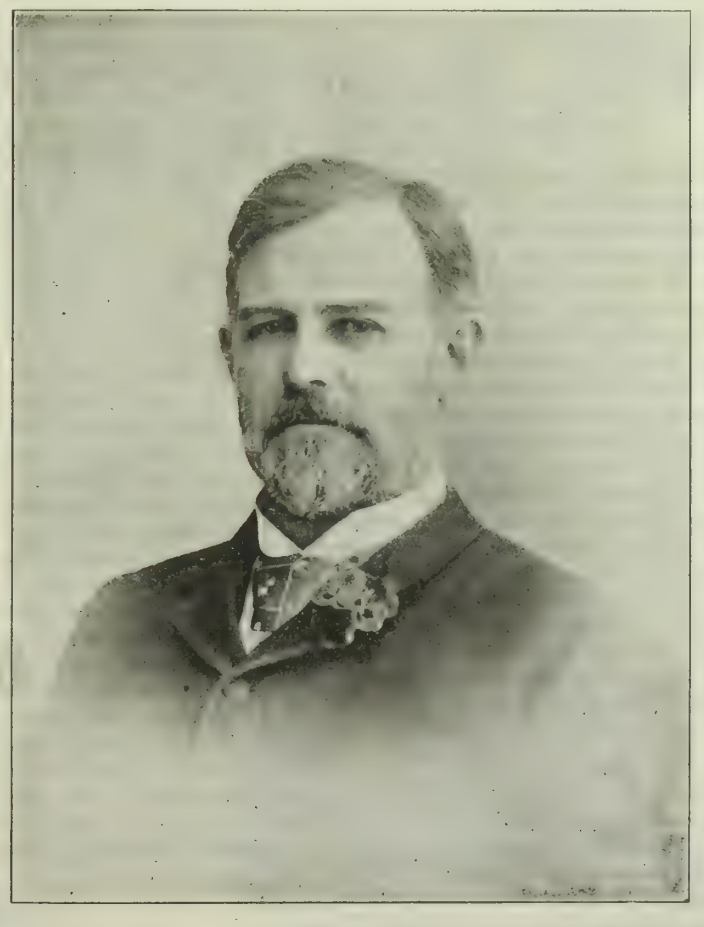
Hon. H. M. La Rue is almost too well-known to readers of the RURAL to need introduction. Our columns have frequently borne witness to his enterprise and public work. The State Fairs have for years shown his talent in organization and arrangement. His popularity is shown by the fact that every horticultural and viticultural assemblage to which his candidacy was announced adopted resolutions approving his choice as chief of viticulture at Chicago. He is an old Californian, a successful agriculturist and a man who has always been prominent in public agricultural affairs, and has faithfully discharged several important political trusts.

Mr. La Rue is a native of Elizabethtown, Ky., and when barely a youth he came to California in 1849. That year and in 1850 he engaged in mining and teaming in the mining districts. In July, 1850, he located in Sacramento county, and has resided there ever since. His first crop was planted on what is now the Rancho del Paso, in Sacramento county, in 1851, and he resided there for some 20 years, engaging in farming and stock-raising. An orchard of 75 acres, principally in peaches, was set out in 1857 and 1858, and for years it was the largest and finest in the State. As may be imagined, it was very profitable, and it continued so until 1868, when it was totally destroyed by high water in the American river. Having previously purchased 840 acres of land in Yolo county, near the town of Davisville, he abandoned his orchard and moved his family to Sacramento city, where they have since resided. He transferred his farming operations to Yolo county, where he is now engaged in general farming and stock-raising. He has also 90 acres in wine grapes, 100 acres in almonds and some other fruits. He has now 2050 acres in this farm. His principal vineyard is of 120 acres, located in Napa valley, near Yountville, nearly 100 acres of which are in resistant vines and grafted to choice varieties.

The other gentleman whose portrait appears is W. H. McNeil, who was selected by the California World's Fair Commission to take charge of the viticultural features of the California display, and this includes both the producers' exhibits which are regularly entered in the horticultural department, as well as those which will occupy prominent place in the California building. Mr. McNeil has been specially qualified for such work by long service in charge of the display which the Viticultural Commissioners have maintained in their rooms in this city. He has a wide acquaintance with the wine-producers, and is specially favored by them. Mr. McNeil was born Feb. 10, 1842, at Schuylerville, Saratoga county, New York, and is connected with one of the most noted Scottish Clans. He first came to California in 1852 when a lad of ten, and two years later he returned East and entered the Allen School at Newton, Mass. He returned again to California in 1858, and lived for a time in the Napa valley, his father having been one of the old-time land-owners in that section. He served honorably during the war, then in the customs service, and was afterward engaged in general business until his engagement by the Viticultural Commission in 1888.

California vs. Foreign Fruit.

An indirect indication of the way in which California fruit is affecting the foreign product in the great marts of the Atlantic seaboard is given by a New York journal. Mention is made of the failure of a local firm of dealers in foreign fruits, and it is further stated that they attribute their failure to the great shrinkage in values in foreign dried fruits, which they dealt in, especially raisins and currants, the depreciation being at least 35 per cent. California fruits had revolutionized the business; the firm had to put down prices, and even then they could hardly sell their goods, as California brands were now the "fad;" then again, they had to sell on six months' credit, and in that way made bad debts.



W. H. M'NEIL, SUPERINTENDENT OF CALIFORNIA VITICULTURAL DISPLAYS.

We are aware that many inferences are made to account for commercial failures, and statements in that line often contain a low percentage of truth, and yet the claim which this firm makes as to the influence of California supplies upon the demand for foreign fruits is one which is approved by much more substantial evidence. The result is in fact only what might be expected, and in harmony with the purpose of American fruit producers. American fruit for Americans is clearly indicated by the vast and varied resources of the country. A people with such a heritage should have little need of foreign supplies, and it really has little.

LAST Saturday it was announced that, owing to the spread of cholera in Europe, consular certificates would be required after September 18th. Now the cholera is fully developed at two principal points of departure—Hamburg and Havre.

FRUIT FOR THE FRUITLESS.—Near Medill, Mo., nine cars of California pears and peaches were wrecked Tuesday, on the Santa Fe road. A telegram says the fruit is being carted away in wagons by the farmers living in that vicinity.

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Any subscriber sending an inquiry on any subject to the Rural Press, with a postage stamp, will receive a reply, either through the columns of the paper or by personal letter. The answer will be given as promptly as practicable.

Our latest forms go to press Wednesday evening.

ALFRED HOLMAN.....General Manager

Saturday, August 27, 1892.

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BUSINESS ANNOUNCEMENTS.

[NEW THIS ISSUE.]

Buggies, Etc.—Baker & Hamilton.
Hay Press for Sale—Truman, Hooker & Co.
Pigs—Sessions & Co., Los Angeles.
Stallions—Holbert & Conger, Los Angeles.
Fruit and Nut Trees—Baldwin & Stone, Danville.
Bargains in Land—John F. Byxbee.

☞ *See Advertising Columns.*

The Week.

The peace of California, atmospherically, sanitarily and industrially, presses itself upon the thought of the resident as he turns with a sigh from the plague reports from Europe, the labor commotions and cyclonic storms of the eastern and central States. It is true that we have stirring issues to meet and oppressive conditions to overcome, but after fuming all day about them, even the most ardent reformer can seek the quiet of his home, garden or his field at evening and be assured that cholera specters and cyclone fiends do not infest the air above him, nor mobs nor militia infest the highways around his premises. If this should be the only reward for being far from the madding crowd away upon the outmost run of civilization, it is enough.

But it is worth thinking that the peace we enjoy is not the peace of isolation and idleness. The islander of the South Pacific and the Eskimo of the polar world have that. Ours is the quiet and peace of effort in a land where industry is fostered by nature and where activity is full of pleasure and reward; where the stimulus to mind and soul culture is keen and the impulse to greatness strong. Such is California, and fortunate are those who know and feel it.

Personal.—Prof. W. A. Henry of the Wisconsin State University is in the city this week. He has been putting in his summer vacation on his lemon ranch in San Diego county, and is now making a study of agriculture in the upper part of the State before returning to his important work in Madison. Prof. Henry is a leading expounder of the science of animal nutrition and the practical ways of proceeding under this science. He is doing a vast amount of good to the livestock industries by his enthusiastic pursuit of this line of effort. He hopes to study feeding as practiced at Palo Alto stables and in such other establishments as he has time to visit.

A Valuable Late Orange.—It is reported from Los Angeles that J. R. Dobbins of Alhambra has delivered his crop of Valencia oranges free on board the cars at that place at $4 a box. From 130 trees eight years old he realizes $2400 gross, or $2000 after paying all expenses. The Valencia (sometimes called Du Roi, but of which we suppose the coming name will be "Hart's Tardif") is the latest orange to come into the market, and generally is at its best in July. This year the crop is later than usual. Within the past two years a great many trees in the nursery have been budded to this variety, and a few years hence there will be a considerable production of late oranges.

At the State University.

The widespread interest of Californians in higher education may be learned from many plain indications. The disposition toward the improvement of existing high schools and the establishment of new ones under the law passed by the last legislature is significant. The success of the University Extension courses which have been given also shows the drift of public opinion. Perhaps, however, the most unequivocal testimony is given by the record of admission of new students at the State University. At the Regents meeting on Tuesday of this week, Acting President Kellogg reported the admission of 206 students in 1890, 235 in 1891 and 265 in 1892 up to date. This is a gratifying increase when the fact is remembered that while the Stanford University secures a good complement of students the State institution is not depleted, but, on the other hand, advances steadily. No better indication could be had that Californians believe that higher education is a good thing to have, and propose to have it.

Another phase of the matter which is also apparent to any one within observing distance is that the institutions improve as their popularity increases. It may be argued that popularity follows awakening and improvement of the University itself; that the two great institutions have been so worked upon by each other that they have put forth efforts calculated to command popularity, and that thus the demand for higher education has been stimulated. We will not quarrel with either view of the case. We are content to rejoice over the fact that California never had such Universities as she now possesses, and she proposes to enjoy their benefits. The results of this state of mind will be advance in enlightenment, the dissemination of knowledge, the elevation of the citizen, the progress of the State.

We are glad to state, also, that in this general awakening on the desirability of education the higher lines of agricultural education are not overlooked. It is significant that the newly-established High School at Haywards announces an agricultural course among its scientific branches. This is an excellent provision. It will be the means of instilling the rudiments of the sciences underlying agriculture in the minds of those who must go directly from the high school to their life-work on the farm, and it will induce others to pursue the higher agricultural education at the State University.

Among this year's admissions of new students to the university, there are more applying for the agricultural course than usual. These include both those who enter for a full four years' course, which leads to a degree, and those who enter for a shorter period as special students. And it may interest some of our readers to know that two young ladies, graduates of popular ladies' seminaries, are this year at the State University as special students in agriculture, fitting themselves for actual enlistment in horticultural work, to which their tastes incline and for which opportunity favors them.

The State University is continually improving its facilities for public service. A new professor of pedagogics has begun his most important work for the inculcation of the art of teaching. The College of Mechanics will at once be provided with a new building for its work, and will extend into the new and pressing branch of electrical engineering. The College of Agriculture has promise next year of a new conservatory in which the botanist and the horticulturist may both be better equipped, and a botanic garden is now being planted in addition to the old garden of economic plants, the growths in which are now attaining age and size and increasing interest. These are only a few of many indications that the institution is moving along right lines, and the gratifying feature of it is that it is fostered by public interest and support as never before.

Our Fruit Essays.

We print in this issue the two essays upon fruit-drying which we deem entitled to the premiums which we have offered for this subject. As we stated last week, the press of work in actual drying has prevented many from writing of their work as they might do in a more leisure time. We are gratified with the character of the letters we publish and the amount of straightforward, practical information which they embody, but we hope, by a renewal of the prize offer at some future time to educe statements concerning different aspects of the subject. The awards we make this month are as follows:

First prize, $10, to C. E. Williams of Yuba City.

Second prize, $5, to A. J. Towner of Santa Ana.

Let all in the dairy line remember the competition which is open to them, as stated in last week's Rural. Three prizes for letters on dairy experience and practice—letters of any length the writer chooses, to be mailed to us on September 10, 1892.

From an Independent Standpoint.

In this issue of the Rural the editor gives up a large share of his space to writers whose opinions on the currency question are directly opposed to his own. He gives it cheerfully because he does not assume to possess a monopoly of wisdom on this or any other stbject, and is willing, now and always, to deal justly, to give both sides of every public question fair hearing in the columns of the paper. If opinions differ as to silver, we are at least all together in our desires to get at the truth of the question and to find a way to relieve the country from its financial perplexities. If our correspondents, Messrs. Webster, Smith and Bard, are right, if free silver coinage will be a good thing for the country, the Rural wants to know it; it is open to conviction on this and every other subject. And if, on the other hand, the Rural is right in its judgment that free silver coinage would do more harm than good, then most certainly our correspondents want to know it. The best way to reach wise judgments is to reason together calmly in good feeling and friendship, free from that partisan and controversial spirit which is the evil genius of ordinary political discussion. We cannot undertake to review in detail the full and able letters given in this number—space will not allow extended comment—but it seems to us that they hold in common one fatal error. The idea seems to be—and it is the central principle of the whole free silver movement—that if the Government would permit free coinage, silver would as a consequence rise to a parity with gold at the old ratio. With this judgment the Rural cannot coincide. We believe it to be a positive truth, incapable of variation, that the worth of a coin is no more and no less than the value of the metal contained in it. Free coinage of silver as now proposed would permit about sixty-six cents worth of silver to be coined into a dollar, and the effect, in our judgment, would be to send gold to a premium and to establish a sixty-six-cent dollar as the standard dollar of the country. Whoever doubts that universal loss and disaster would follow such a change needs only to study the history of similar transactions wherever they have been tried. It would, we believe, reduce the value of every acre of land, of every head of stock, cut down the purchasing power of every wageman's earnings, and put new and painful burdens upon the poor. We are confirmed in these judgments by the almost unanimous opinion of those who have made finance a special and exhaustive study. Believing as we do, that free silver coinage would involve the country in a distress unparalleled in its history, we have thought it right to speak in plain terms of warning. But the Rural has no bigotry in its opinions; it is open always to conviction. It sees plainly the evils of the times, and it would gladly see those evils corrected. It cheerfully gives its space to those whose views are different from its own, but whose desires and purposes, like its own, are for the best interests of the producers of the country.

The labor troubles at Buffalo, N. Y. and at Coal Creek, Tennessee, have continued to hold public attention during the past week. As we write (on Tuesday) the situation is more serious than at any previous time. The whole force of the New York militia is massed at Buffalo—8000 men—but they seem powerless to maintain order. Destruction of property by the strikers continues, and collisions between the troops and the rioters are of hourly occurrence. On Monday there were several fatal encounters, the death roll for the day including four strikers and three members of the militia. No man can tell what the end will be. It is feared that the strike will become general on the western roads and that order can only be restored through the employment of United States troops in large force. At Coal Creek the strikers have been awed but they have not succumbed. On Saturday there was a pitched battle between the militia and the strikers with several fatalities on each side. The strikers finally offered to treat and the commander of the militia went out on neutral ground to meet them. The rage of the strikers was so great that the leaders could not restrain them, and the officer (Capt. Anderson) was roughly handled. The more moderate men finally got possession of him and the day following he was released and returned to his command. One by one the men known to be guilty of specific acts of criminality are being arrested, but many cannot be found and it is supposed that they are in hiding in the mining shafts and drifts with which the region abounds. It is proposed, if all other efforts fail, to smoke them out, arrest them when they appear and turn them over to the civil authorities for trial. Thus the matter rests at Coal Creek. At Homestead, apparently no progress has been made toward a settlement. The works are in half-operation by nonunion workmen who do not venture outside the enclosures, though there are 4000 soldiers on guard in and about the town. The strikers are being

maintained by their fellow-workmen in other mills and they declare that they can and will hold indefinitely.

The causes of these troubles have been lost sight of in the attention given to the indefensible acts of lawlessness on the part of the strikers. The men have lost public sympathy and support because they have gone to unjustifiable lengths. If they had been content to exercise their admitted right to strike and had submitted the differences between them and their employers to the adjudication of public opinion, they would have stood a fair chance of success, but they have so identified their cause with revolutionary and criminal acts that it is impossible for their real friends to support them. The RURAL sympathizes with the oppressed at Buffalo, Coal Creek, Homestead and elsewhere, and it believes that the State ought to compel public corporations to deal justly with their employes but it cannot sympathize with the insane forces of riot and crime. We hold that in the present emergency there is but one thing to be done, and that is to put an end to the disorder by armed force. The Government is bound to protect property from destruction, to protect nonunion men in their right to work unmolested and to punish with severe hand those who have violated the law. The original questions involved in the strikes must wait for settlement until criminality is suppressed and order restored.

English judgment of American affairs is not always kindly, but it is perhaps the more valuable because it is plain-spoken. The journalistic comments on the labor troubles are especially notable. Says the London *Chronicle:* "The American people had the most splendid inheritance ever conferred on a nation, and they have grossly misused it. Hordes of vulgar office-seekers have been permitted to fatten on the public body; great cities are given over to men who ought to be in prison, and millions on millions of acres of public lands are given with a light heart to railway corporations which now threaten to strangle the republic in their octopus-like grasp. This is the real, practical anarchism which ruins States, compared with which the anarchism of a handful of desperate fanatics is almost innocuous. That is the general moral of the labor war; but there are special questions relating to railway and convict labor. It is simply monstrous that capitalists are allowed to use convict labor; so monstrous that no self-respecting community could possibly tolerate it." The *Standard* says: "Men do not fight like tigers and wreck property with savage fury unless driven desperate by want. Evidently a point is reached when the men feel that life is not worth living." The *Times* says: "The labor troubles in the United States have taken a form not easily to be distinguished from civil war. We cannot yet venture to think the danger ended. It is small wonder that the course of affairs is watched with alarm by those in whose memory the events of 1877 are still fresh." The *Daily News* says: "This labor war, in a literal sense of the word, justifies the prediction of many diligent students of American politics and society—that so-called troubles come earlier and prove infinitely more bitter in a republic than in the old-fashioned monarchies of Europe."

The Silver Question.

From a Friend of Silver.

KERN COUNTY, Aug. 18, 1892.

TO THE EDITOR:—Coinciding as you do with nearly all the reforms proposed by the People's party, makes us only regret the more that you have not been able to see from our standpoint the necessity for a full and unrestricted coinage and circulation of silver in order to bring it to parity with gold coin.

While differing with you on that point, it must be confessed, however, that the candor and courage with which you announce both your agreement and dissent, is the best evidence that they are the conclusions of an honest, fearless thinker, and of one who holds his opinions subject to correction whenever shown to be in error. Furthermore, the fact that the columns of the RURAL PRESS are at the service of those who differ with it and who desire to controvert respectfully the views of public questions taken by it, commands the regard of those least inclined to brook opposition to their cherished ideas, and is in pleasant contrast with the editor who speaks merely *ex cathedra*.

The money question, which both the Democratic and Republican parties have endeavored to avoid the discussion of, for fear of exciting the hostility of the money power, is to-day, and will be until it is settled in accordance with the power delegated to Congress by the constitution, the most vital, pressing and important issue which the present generation will have to settle. For thirty years the bankers and bondholders of Europe and the United States have dictated the financial policy of the Federal Government to their own enrichment and to the spoilation of the people. Every measure passed by Congress during that period, touching the currency, has had for its object the establishment of the single gold standard, and, consequently, the diminution of the profits of the farmer, the decrease in purchase value of the wages of the workingman, and the impoverishment of unfortunate debtors. During all that time the plutocrats, through their selected and instructed agents, have retained unrestricted control of the treasury of the United States, and there is no hope of ejecting them from that intrenchment, except by the defeat, and disintegration if possible, of the corrupt and cowardly old parties which exist merely for the spoils of office. To accomplish this there must be manifested an unalterable determination to have again the money of the constitution; to repeal all laws designed to part gold and silver coin, thus making different and fluctuating values in the only constitutional tender for the payment of debts—the coined money of the United States.

To give effect to this most important of all the political reforms advocated, it would be the part of wisdom for the People's party, during the remainder of the campaign, to make the restoration of constitutional money the paramount issue.

EDWARD PARD.

"An Honest Dollar."

NAPA, Aug. 16th, 1892.

TO THE EDITOR:—It is evident from the diversity of opinion that prevails on the financial question, as it relates to silver coinage, that it should be discussed fairly and independently, I think, of partisan politics.

Your editorial in last week's PRESS—From an Independent Standpoint—has many good points, but I cannot agree with your apparent conclusion that the free coinage, as advocated by the People's party, is a "financial heresy," nor with the implied idea that, if adopted, about 645 grains of silver instead of 412½ grains should be put into the dollar.

There is error in such a view. I believe in an honest dollar, and think it is clear that neither the gold nor the silver dollar, under present coinage, is as honest as both would be under free coinage with the established ratio of 1 to 16. The value of the gold dollar is not honest, because its value has been inflated, forced up by the same vicious legislation that forced silver down by demonetizing it, or, what was equivalent thereto, denying free coinage under the Congressional Act of 1873. I need not do more than state this proposition, for you grant the argument when you say, "These men (Mr. Steele and Mr. Overhiser) are not blind to the disadvantages of a single standard; they are not blind to the evils of *the steadily enhancing value of gold, etc.*" I put the last phrase in italics to emphasize the point I make, viz., that the present value of the gold dollar is above par, and therefore dishonest as a measuring unit in buying my corn and fruit.

On the other hand, there is some force, it must be admitted, in calling the Bland coinge of silver dollars, and what has followed under the Sherman bill, dishonest, because, as measured by inflated gold, we have a varying intrinsic value much below par. The reason is plain. Silver, as a mere commodity, can never be made into an honest dollar. It will fluctuate in value on the market as wheat or corn, only worse, because it is more in the keeping of the "bulls and bears" of Wall street. Under free coinage, when the holder of silver can have it coined into silver dollars he will not sell it on the market under par. Conceding that since the value of a gold dollar is inflated, the effect of free coinage of silver might, and probably would, retire gold from circulation for a short time, yet it would seem a less calamity, and probably have less effect on foreign securities, than the present unsettled and threatening aspect of financial questions. Evidently, with resumption of free coinage, as with resumption of specie payments, "The way to resume is to resume."

As to the relative value of gold and silver, under the free coinage of both, past experience indicates that the old law of ratio between them would reassert itself, and that the gold and the silver dollar would again go hand in hand as equals, intrinsically as well as commercially. I do not believe that overproduction of silver has anything to do with the adjustment of this question. It is legislation, pure, simple and vicious, that has made the silver dollar what it is; and political jugglery is all that prevented the last two sessions of Congress from passing a free coinage Act.

As an indication of the effect of legislation, let it be noted that under the first impulse of the Sherman bill, about a year ago, silver advanced to $1.20 per ounce. Then the "bears," seeing it was only a commodity still, got their grip on it again. No one will claim that this advance was caused by a reduction in the output of silver bullion. Again, let it be noted that the output of gold, when at high tide by reason of the new discoveries in California and Australia, did not affect its coin value to its discredit. Why not? The disproportion of the production was much more against gold then than it is against silver now. But, steadied by the anchor of free coinage, the standard ratio of 1 to 16 was not disturbed.

These facts point to the conclusion that there is no sufficient reason for increasing the bullion in the silver dollar in order to make it honest. The old historical ratio of 1 to 15½, or the American ratio of 1 to 16, is, in all probability, correct for the long run.

It may honestly be said that fluctuations in the output of neither metal have been the cause of the divergences in their values in recent times. United under this yoke by free coinage they always made a steady and a reliable team. Modern legislation has parted them, much to the sorrow of the debtor classes. First, Great Britain, seeing her opportunity as a money-loaning and wheat-buying nation, demonetized silver. Germany followed, and then, unhappily, our country fell into the cunning trap of the money-loaners. Legislation caused the downfall of silver as money—legislation can restore it.

In conclusion, I desire to say I am not advocating Weaver's candidacy. A vote for Weaver will count only in the House of Representatives for Cleveland, and he is antifree coinage personified.

W. EGBERT SMITH.

From Hon. J. V. Webster.

CRESTON, Aug. 18, 1892.

TO THE EDITOR:—In the issue of your valuable paper, under date of the 13th inst., there appears a leading editorial under the caption, "Erom an Independent Standpoint."

Your candor and independence as therein expressed are commendable, and your affinity for the People's party is so manifest that I have barely the heart to contravene any of your statements, and would decline to do so if it were not that you have dovetailed and tucked into the same truckle bed, so many adverse elements.

Hence, the chief object I have in replying is, that the seeming incongruities in your article may be explained away.

It appears that you substantially agree with the declarations of the People's party platform, other than on the question of finance. You admit that times are hard, and believe that a good many reforms are needed to establish uniform justice in the country; you say: "We believe with the People's party, in an honest and economical Government; in Government ownership of railroads and telegraphs; in the policy of holding American lands for American settlements, and in many other lines of public policy." The People's party support, you declare, "rests not upon the silver and subtreasury heresies, but upon the just discontent of the country with the old parties; the corruption in politics, both Democratic and Republican, in this State; the shameful rule of the city rings in the Legislature; the cowardice of both parties in allowing railroad and other corporations to fatten at the expense of the producer."

Well said, Mr. Editor. Manifestly you are more than half over the fence already. You substantially subscribe, it appears, to every plank in the new party platform, save and except its financial heresies. We are pleased to have you with us thus far, and console ourselves for the future with the reflection that great conversions are evolutions of slow process. Now let us critically examine the subtreasury scheme and the silver coinage scheme.

The People's party platform under the head of "Finance" reads: "We demand a national currency, safe, sound and flexible, issued by the general Government, and a full legal tender for all debts, public and private as set forth in the subtreasury plan of the Farmers' Alliance, or a better system." Is there any objection to the wording? "A national currency, safe, sound and flexible." Who can improve on it? But fearing that there might be some mistake or embarrassment in the practical application of this proposition, it is qualified by the words "or a better system," showing clearly that the People's party is not wedded to this plan, and is in doubt as to its expediency, therefore, inserts said qualifying clause. Now I am sure that if we could have the cooperation and council of the editor of the RURAL and a few other minds like his, some plan for "a better system would be devised. So here we are again all together and substantially agreed to any plank in the new party platform save and except that favoring "the free and unlimited coinage of silver and gold at the present ratio of 16 to 1."

As quoted, Bro. I. C. Steele says: "I believe that the Government should issue all the money of the country, and that every dollar it issues should be the equal of any other dollar." Bro. W. L. Overhiser says he "believes in the free coinage of silver, but wants the bullion in the silver dollar to be worth a dollar." The inference is that the editor of the RURAL is likewise impressed.

The People's party platform says: "We demand a national currency, safe, sound and flexible, issued by the general Government." Is there any substantial difference in these declarations? All want a safe, sound, flexible currency for the country—"a just, equitable and efficient means of distribution direct to the people, at a tax not exceeding 2 per cent per annum." This language also recurs in the financial plank quoted from. Here, again, we will not seriously disagree, for certainly it would be very comfortable and desirable for farmers to get all the money wanted direct from the Federal treasury at 2 per cent per annum. Nevertheless, I do not think the plan practicable or feasible, and I fear that it is fraught with much danger to our financial system.

The framers of the People's party platform appear to have realized this difficulty, and therefore, as above stated, qualified the whole undertaking by inserting the words, *"or a better system,"* which brings us all together again, for the concession favoring free coinage of silver on any terms is equivalent to admitting that the legal tender circulation of the country is entirely too small. Now, when we sift the controversy down into a nutshell, it seems that the only difference among us is regarding the amount of silver that should be put into a silver dollar.

To arrive at a just and rational conclusion in this matter, we will have to concisely review the present and antecedent status of silver. For the last two thousand years, gold and silver have stood as the standard coin metals of the world, and in all that time the coinage rate of silver to gold has never been less than 13.957 to 1, nor more than 16½ to 1. On the 2d day of April, 1792, over one hundred years ago, this country adopted the double standard at the ratio of 15 of silver to 1 of gold. The coins remained at this ratio until 1834, supplemented by an Act in 1837, when the ratio was changed from 15 to 1 to 16 to 1, by reducing the weight of the gold dollar. So the amount of silver in our standard dollars has never changed since the foundation of this Government, the basis of value being taken from the Spanish milled dollar largely circulating in the colonies at the date of adopting our national constitution. The present ratio of silver to gold in Germany is 13.957 to 1; in England, 14.28; in India, 15 to 1; in the Latin Union, 15½ to 1; in the United States, 16 to 1; in Japan, 16.16 to 1, and in Mexico, 16½. The ratio of gold and silver production in the world for the last nineteen hundred years has been about 15½ to 1.

In a recent report, the Director of the Mint estimates that the amount of gold in the world is equivalent to $3,711,848,000, and of silver $3,939,578,000, calculated from the different standards of the several nations concerned, which, when the average value of the several coins thereof is taken, the result obtained is very nearly 15½ of silver to 1 of gold. Even within the last 20 years, which covers the greatest silver-producing era ever known, the proportion of the white metal to gold has been substantially 15½ ounces to 1. Then what is the matter with silver? What is the reason for its curtailment in coinage? What is the cause of this bitter fight against its increased circulation?

It has been shown, from statistics undeniable, that the ratio in production of the two metals — taking any considerable series of years, at any time since the Christian era—has been substantially 15½ ounces of silver to 1 of gold; hence it becomes painfully manifest that there is some other reason for this savage raid against silver. Now let us discover, if we can, the cause. The first raider against silver was England, She adopted the single gold standard in 1816. Then Great Britain was, and has ever since been, the greatest commercial nation on the globe. Her white-winged fleets sail every sea, from Behring down to the frozen serpent of the south, and in them are carried to her shores—

> "The wealth of Ormus and of Ind,
> Or where the gorgeous East, with richest hand,
> Showered on her kings barbaric pearls and gold."

And so her riches grew and overflowed her coffers. For investments cent per cent far and wide she sought, until every nation on the earth at present pays tribute to her, save and except, possibly, the French.

> She has a string in every whining nose
> And jerks it when her neck's exposed.

Within the 30 months next preceding the first of July last past, there was due this country, in trade balances, $320,000,000. That is our exports, chiefly to England, exceeded our imports to that extent. In addition to this amount, there was $75,000,000 in gold sent out of the country, aggregating, in two and a half years, $375,000,000 or at the rate of $158,000,000 per annum, for which enormous trade balance it is difficult to discover any return. What became of it? It went chiefly to pay the interest on the bonds and mortgages held in England against this country, of which it is estimated she holds $9,000,000,000, equal to one seventh part of the assessed value of all the property in the United States. Other nations are probably in debt to her in like or greater proportion to the aggregate of their wealth. Then is there any wonder that the bondholders, bankers and brokers of Lombard street are opposed to the double standard England is the creditor nation of all the world, and, since "self-preservation is the first law of nature," it is but natural that every nation, corporation or individual holding any considerable amount of solvent credits, is strenuously opposed to the double standard, or any other method proposed to increase the circulating medium, for the reason that any material increase in money reduces in like ratio the purchasing of their hoarded gold, and consequent value of their solvent securities.

For the last 30 years at least, Wall street operators have been controlled and directed in their operations by those of Lombard street; and Wall street has, in turn, directed and controlled the financial policy of this Government, under every President and Secretary for the last 20 years.

Who can then wonder whence comes this bitter raid against the increase of silver coinage?

In all the advocates of this onslaught on silver and on every other species of money not controlled by the National Banks and bondholders, not one of the number has been more unscrupulous and uncompromising than the present Secretary of the Treasury; so much so, in fact, that he will not redeem a single silver certificate with silver, as intended and declared in the act authorizing their issue. As indicating clearly his disposition in this direction, it may be stated that at a banquet given in his honor by the bankers of New York on the 17th of November last, Secretary Foster, in speaking of the gold reserve and the redemption of silver certificates, said:

"It has always been the custom of this country to pay its obligations in gold. (Applause.) Therefore, should there be any trouble about this, and the present hundred millions of gold reserve fund, as we call it, be entrenched upon, it is in the power of the Secretary, under the law, to issue bonds for gold paying five per cent, and replace or increase the reserve fund."

In other words, rather than redeem silver certificates with silver, as the law provides, he would issue gold bonds bearing five per cent interest, sell them for gold and redeem them therewith, when the ac

of the certificates show that they are redeemable in silver or gold *at the option of the Government.* In further verification of this disposition and practice of the Secretary of the Treasury, an Associated Press dispatch from New York, under date of the 15th inst., reads:

GOT THEIR GOLD

BANKERS GOT $1,000,000 IN YELLOW COIN FOR SILVER NOTES.

NEW YORK, August 15.—A crucial test of the policy of the Government was made to-day, when Hendelsach, Yorkheimer & Co tendered $1,000,000 in Treasury notes, issued on account of silver purchases, and demanded $1,000,000 gold for shipment to Germany by to-morrow's steamer. The Treasury officials made no demur but paid out the money.

This antagonism to silver (inspired by Wall and Lombard streets), having been engrafted on and made a part of the policy of every administration since Lincoln, is there any wonder that silver is at a discount? In the perpetration of this outrage, so many tons of sawdust in the vaults of the Government would be of equal value and utility, so long as the present method of redemption is persisted in, for the certificates drawn against the sawdust, being all redeemed in gold, would have no dependence on the sawdust for their value.

In 1873 the Congress of the United States set the example in demonitizing silver. Up to that time every 412½ grains of standard silver, anywhere in the world, was worth more than 25 8-10 grains of standard gold (the present weight of our gold dollar). The legislation demonetizing silver in this country frightened France and the other members of the Latin Union into the discontinuance of silver coinage, who for 72 years had absolutely maintained the parity of the two metals in Europe at the ratio of 15½ of silver to 1 of gold. And had not Congress, through the manipulations of Senator Sherman and one or two other members, clandestinely and fraudulently secured the passage of the act, free coinage would never have been interfered with by the members of the Latin Union, and silver would to-day have been current the world over, save and except in "perfidious Albion."

France at the present time has $650,000,000 of silver in circulation at the rate of 15½ to 1, which passes current everywhere, and is a full legal tender for all debts, public and private. In the United States we have in circulation, including its representative certificates, $492,-921,735 in silver.

And under the law, every dollar of it is a legal tender for every dollar due to or from the Government. Every dollar of Government bonds outstanding, principal and interest, is payable in gold or silver coin at the option of the Secretary of the Treasury. Yet while the Government vaults are filled to bursting with silver, he will not use a dollar of it for any purpose whatever, but pays all obligations presented in gold, and furthermore threatens that, should the gold reserves in the treasury be reduced, he will issue and sell five per cent interest-bearing bonds to replenish the absorption.

That there may be no doubt of the correctness of the statements herein made, I will incorporate a joint resolution which was adopted by Congress immediately after the great debate and action on the Bland act in 1878. Said resolution, after reciting the several acts of Congress relating to this subject, declared "that all the bonds of the United States issued, or authorized to be issued, under the said acts of Congress hereinbefore recited are payable, principal and interest, at the option of the Government of the United States, in silver dollars of the coinage of the United States, containing 412½ grains each of standard silver, and that to restore to its coinage such silver coins as a legal tender in payment of said bonds, principal and interest, is not in violation of the public faith, nor in derogation of the rights of the public credit." (Congressional Record Forty-fifth Congress, second session, Vol. 7, page 627.)

Then why is not silver paid out in cancellation of the obligations of the Government when the gold reserve is not sufficient to meet the demand without issuing and selling new five per cent gold bonds, as the Secretary says he proposes to do to meet the requirement?

If this legal and equitable privilege of paying off its obligations, by using gold or silver as convenience requires, was enforced by the Secretary of the Treasury, there would be no more trouble about the depreciation of silver. Free and unlimited coinage could be inaugurated without embarrassment. The Latin Union would follow suit. Austria and Russia being creditor nations, would be greatly relieved from the embarrassments in which the single standard has involved them. Germany—half creditor, half debtor—might possibly, for a time at least, stand by the old Octopus islander, who, in her dominating role as the world's great creditor, will strenuously oppose all approaches toward the double standard, which would greatly reduce the demand for, and curtail the immense purchasing value of her gold.

The proposition to increase the weight of the silver dollar until the value of the metal therein shall be equal to the present inflated value of our gold dollar, is not worth considering, for the reason it is unutilitarian and impracticable. An International Convention is called, and representatives appointed by the chief nations of the globe, to consider the practicability of generally adopting the double standard. There are at the present time $1,100,000,000 of silver in circulation in Europe—15½ to 1 of gold; $900,000,000 in India—15 to 1 in gold—together constituting more than half the silver in the world. Three-fourths of the representatives to said conference live on the other side of the "pond." Self-interest will prevent them from sanctioning any proposition tending to seriously disturb the present ratio of coinage, so the chances are that if any agreement whatever shall be reached by the conference, relating to this matter, it will be to adopt the European standard of 15½ ounces of silver to 1 of gold.

Now, Mr. Editor, you can to your heart's content "warn the farming community of the Pacific coast against the financial heresies of Mr. Weaver and those who stand with him," but you can hardly expect to satisfy the demand "for bread by giving a stone." You admit the corruptions in politics, both Democratic and Republican; the cowardice of both parties in allowing railroads and other corporations to fatten at the expense of the producer." Well, what are we going to do about it? Taking your own statement of their antecedents, have we any encouragement for better things should we support the nominees of the old parties? Is there any hope of material reform of the abuses, to which you refer, in doing so? "The cowardice of both parties" is in ignoring the living issues of the day for the old hobby of "tariff reform," which means nothing more nor less than an adjustment of the subjects on which the revenues shall be laid sufficient to support the Government. The Democrats are in favor of "tariff for revenue with incidental protection," while the Republicans are in favor of "tariff for protection with incidental revenue." This is all, and nothing more. It is simply a contest between "Tweedledee" and "Tweedledum" for the spoils of office. You know this. Why, then, urge us to help the foul brood to other robberies? By looking round a little, you will discover that there is universal unrest among the common people of every class. There must be serious cause for it somewhere. The chief embarrassments appear to be manifest to the people, and their disposition is to correct them. The undertaking is a great one, and it will take at least a score of years to accomplish the end in view. Nevertheless, it would be as reasonable to expect the millennium as that this controversy will end short of a consummation on or near the times indicated in the people's platform. We know we have many cranks in our ranks, and, to some degree, as leaders. We are encouraged by this knowledge for the reason that no considerable reform has ever been started by any other class of people. But all antecedent history clearly demonstrates that when great masses of people move in any given direction, though visionary and to some extent fanatical, the current hardly reaches serious proportions before conservative, sensible men take the lead, usually in the greatest good to the greatest number, and be assured that this controversy can never cease until this condition is substantially gained. Defeat this year will only add volume to the current, which will eventually sweep everything before it.

J. V. WEBSTER.

A NEW series of postage stamps, in commemoration of the discovery of America, will soon be issued. They will bear various designs, all, however, representing a historic character or some incident in the life of Christopher Columbus.

Weather and Crop Bulletin for Week Ending August 22th.

[By W. BURROWS, Acting Director of State Weather Bureau.]

The hot spell of the past week seems to have been very general throughout the State, though causing no serious injury to crops of any kind, except in a few cases slight damage to growing corn and beans and to overripe fruit. There has been no rainfall reported from any part of the State, and there has been practically uninterrupted sunshine.

In fact, all the climatic conditions seem to have averaged about the normal, and have been attended with favorable effects on crops, and, with few exceptions, the very encouraging prospects indicated in the bulletins of the last few weeks seem to be in process of full realization.

With hardly an exception, farmers and orchardists express themselves as being satisfied with both yield and prices. As will be seen by the reports of correspondents, the activity in disposing of the enormous fruit crop is only limited by the capacity of the railroads to carry it to the eastern markets, and of the local establishments to pack and dry it.

The hop crop seems assured; all reports on the subject are very satisfactory. Picking has begun in some sections, and will shortly be in full progress throughout the hop-growing districts.

The temperature has been abnormally high here, the average daily departure being four degrees above the normal.

The highest temperature for the week was 106° on the 18th; the lowest was 52° on the 22d. The highest and lowest temperatures for the corresponding period one year ago were 106° and 60°. Light to gentle southerly winds have prevailed. The hot spell was, however, limited to a few days, the maximum temperature having again fallen to below 80°.

HUMBOLDT.—We are having very warm days for this section and rather cool nights—90° in the shade, and on one day the thermometer showed 96°, being the warmest of the season. Fruit is ripening fast. Potatoes are smaller than usual, and vegetables generally of a poorer quality, on account of the drought.

Eureka—The past week has been very favorable for harvesting and for ripening fruit. Oats, wheat and barley are looking well, and will yield more than an average crop. The outlook is more favorable for a good potato crop. The fruit crop is not worth mentioning.

Upper Mattole—The temperature for the past seven days was apparently above the normal, with an average amount of sunshine, benefiting the corn crop. Thrashing is in progress, with about or nearly an average yield. The hot weather is bringing the corn crop on fast, and with a late fall, corn and potatoes will be fair. Highest temperature, 90°; lowest, 48°; mean for the week, 66°.

SHASTA.—The past week has been very warm, the temperature rising above 100°. Fruit is ripening very fast; four carloads left for Chicago this week. A great deal of the fruit will have to be dried, for want of cars to ship in. Prune-drying will commence in ten days, with a fair crop, both in quality and quantity. Very little wind this week, and mostly from the north. Highest temperature 106°, lowest 67°.

YUBA.—*Wheatland*—Harvest is about completed. The yield is above the average and of fine quality. Hop-picking has commenced in earnest, and the yield will be large and a valuable crop. No damage resulted from excessive hot weather the past week.

LAKE.—*Upper Lake*—Cold, cloudy weather, with indications of rain the first part of the week, retarded the ripening of fruit. It is now hot, but this is reasonable. Threshing is nearly over, and the crop is up to expectations, but prices are low. Hops will soon be ripe enough to pick. Highest temperature 101°, lowest 48°.

SONOMA.—*Santa Rosa*—Sunday, Monday, Tuesday and Wednesday were extremely hot, the highest temperature for the week being 102°. Hops are coming on rapidly, but no picking will be done before the 26th of August or September 1st. Growers report at least two-thirds of a crop, and some say they will have an average crop. Fruit is coming in by the ton, and the canneries are running night and day to pack it.

Forestville—On the 17th, 18th and 19th the maximum was 103°, minimum 49°. Conditions are the same as in former reports. Hops will be ready for picking about September 5th. The crop is generally late this season.

NAPA.—*Napa*—The excessive heat during the week did a good deal of damage to the grape crops; other fruits are doing well, and the weather is now quite cool. More and better fruit is going from Napa to Eastern markets than in any preceding year. One carload to Kansas City and two to Minneapolis, mostly plums and pears, were shipped by the Napa Valley Fruit Company during the week.

SACRAMENTO.—*Franklin*—The weather for the past week was extremely hot, reaching 105°. The crop has turned out very fair. Farmers are needing more sacks than they expected. The barley is very light, and the wheat in spots is shrunken. Everything is going on about the same as last week.

PLACER.—*Newcastle*—Highest temperature 105°, lowest 66°. From the beginning of July to the end of October there can scarcely be any other report than favorable to the fruit crops in this and other portions of California. If the weather be cool for a few days, or at 100° or more for a short time, all the same fruit comes along in all its perfection and loveliness, and in either case the weather is favorable.

AMADOR.—*Oleta*—The whistle of the thresher is fading in the distance, and the song of the hay-baler is heard in the early morn.

STANISLAUS.—*Oakdale*—The hot wave experienced the last week has been what farmers call good for getting out early to work and enabling them to get through a good day's work. At the same time it has been hard on man and beast. The wind is getting very light and steady.

SANTA CLARA.—*Gilroy*—The warm wave prevailing the past few days has tended to make grapes drop, and has been rather damaging to very mature fruit, but on the whole it is beneficial.

TULARE.—*Visalia*—The past few days have been hot and dry. Fruit is ripening fast and in large quantities. The hot days are just what we want.

TEHAMA.—*Red Bluff*—Temperature above the normal; harvesting nearly completed. Grapes doing well. Early ones in market. Fine for fruit drying. Peaches ripening well.

FRESNO.—Sky cloudless; temperature above normal. Grapes are ripening slowly. Many vines are dying, and the cause is being investigated by an expert of the Agricultural Department.

LOS ANGELES.—The past week was warm and favorable for fruit-ripening and drying. Pears are a good crop. Prunes are generally light and walnuts large. Honey is about an average crop. Carloads of fresh fruit going East weekly.

SAN LUIS OBISPO.—*Santa Maria*—For the week ending at date, we have just passed through a hot spell detrimental to beans and corn. Fog is again slightly improving the conditions. Beans, corn and potatoes will be light. General fruit harvest also. New cannery is working on pears and peaches. Maximum temperature, 90°; minimum, 53°. It is now too late in the season for any great change in crop prospects.

The Coyote Curse.

ATWATER, MERCED CO., Aug. 18, 1892.

TO THE EDITOR:—I have been requested by one of your subscribers to write my experience about coyotes, as they affect poultry-raising.

I am grain-raising on a small scale, so small that I found my income some seasons was inadequate to meet my current expenses. I therefore concluded to endeavor to add to my income by raising poultry. I procured two incubators; the combined egg capacity of both was about 800 eggs. I procured and constructed brooders and wire-netting pens, and, together with my wife's former experience in working incubators, we made successful hatches, and successfully reared 1000 chicks ready for the range. My plan was to range them on the wheat stubble. Everything worked according to our plans and they were doing splendidly, beating any kind of hen process.

The Huffman & Crocker Company farms land adjoining me. It is their custom after harvest to put sheep on the stubble. Coyotes naturally follow bands of sheep, and in that year they were unusually plenty; several times eight or nine coyotes came on to my poultry range in one flock or herd, and in spite of the eternal vigilance of the whole family, they reduced my 1000 chicks to less than 300. Out of 200 turkeys hatched in the spring (and this was September), they left us but 90, which we sold for $1.50 apiece. I became so discouraged that I abandoned the poultry business.

I believe there is so much opposition to the bounty law that it is likely to be abolished sooner or later. It is argued by some that the coyote is the farmer's friend as an exterminator of jackrabbits. Any person of common sense who is acquainted with the peculiar habits and idiosyncracies of the coyote, would not for a moment believe that a discriminating one would prefer a scabby, measly jackrabbit to a nice young lamb or a spring pullet, and have a harder job to catch the jack to boot.

J. C. J.

Sheep-Dog Contest at the State Fair.

SACRAMENTO, Aug. 18, 1892.

TO THE EDITOR:—Thinking probably you might desire some information regarding special features at the State Fair in which your readers are interested, would say that in addition to those already published, we have arranged for a sheep dog trial, so that owners of trained collies, etc., may have an opportunity to try them in public. We have offered three premiums:

For the best sheep dog trial in work with band of sheep	$40
Second best	25
Third best	15

In years past there has been considerable competition in the breeding and training of this character of dogs, and of recent years they have been used to some extent in handling all kinds of livestock.

It is our purpose to give breeders and trainers an opporto show their dogs.

The date for the contest has not been fixed, but it will take place one of the mornings during the State Fair.

EDWIN F. SMITH, Sec'y.

This is an excellent idea. Let all call attention of dog-owners to the contest.—ED. PRESS.

State Fair Special Hog Premiums.

SACRAMENTO, Aug. 28, 1892.

TO THE EDITOR:—The special premiums offered by the Union Stock Yard Company, at the State Fair, are as follows:

For the best pen of pigs, not less than six, for packing-house purposes	$25
Second best	15
Third best	10

Kindly give it as much publication as possible, that the hog industry shall reap the benefit of this liberal offer.

EDWIN F. SMITH, Sec'y.

Ramie at the Fairs.

W. H. Murray, State Supt. of Ramie Culture, will have samples of ramie goods and the plant to exhibit at the fairs, and will be at the exhibition halls on the days named: Chico, Aug. 22d, 23d and 24th; Napa, Aug. 25th, 26th and 27th; Marysville, Aug. 29th, 30th and 31st; Auburn, Sept. 1st, 2d and 3d; State Fair, Sept. 5th to 17th; Stockton, Sept. 19th to 24th; Fresno, Sept. 26th to Oct. 1st.

THIRD FRUIT SALE IN LIVERPOOL.—On Aug. 19th the third sale of California fruit occurred in Liverpool. The sale was largely attended. It was raining hard during the time of the sale and the atmosphere was very humid which had some effect on prices. These, however, were quite good under the circumstances. Pears brought from $3 to $3.75 per box. Peaches, from $1.75 to $2 25. Plums, $1.50 to $2.50. The fruit was in splendid condition. Increased prices are looked for with each shipment.

DURING service in a Westminster, Conn., church, a steer dashed against the green baize door and ran up the aisle with the door on his horns.

PETALUMA people expect shortly to have a starch factory wtih a capacity of working up 20 tons of potatoes every 12 hours.

FRUIT PICKING AND DRYING.

Methods of Taking Ripe Fruit from the Tree Discussed.

BUSINESS VIEW OF SULPHURING AND BLEACHING FRUIT.

PACKING IN BULK AND PACKING IN CASES, ETC., CONTRASTED.

A Practical Essay by a Successful Fruitgrower on the Treatment of Apricots in all Stages From the Tree to the Market-Rural Prize Letters for Month of August.

YUBA CITY, CAL.

TO THE EDITOR:—Before fruit can be dried it must be gathered. In gathering fruit when the whole crop is to be dried, it is many times advisable to shake the fruit off the tree instead of picking it. On the average it costs about one-half as much to shake the fruit off as to pick it. One advantage in shaking fruit lies in the fact that only that which is ripe will, as a rule, fall to the ground; and, above all things, in drying fruit of all kinds be sure that it is thoroughly ripe. Green fruit will only dry into chips, hard and badly-colored, while even overripe fruit will much of it make a good dried article. If it will hold its shape when cut and not run on the tray, it is not too ripe. Of course it is not necessary, and no one should leave fruit on the tree until it will not handle nicely or the skin will break too easily.

If it is decided to shake the fruit from the tree, a canvass should be prepared, from 16 to 20 feet square, according to the size of the tree, and one seam in the middle sewed only half way so as to allow to be spread on each side of the tree. The trees must not be shaken too hard for fear of getting some that is not entirely ripe. I have known orchardists to gather fruit in this manner for 75 cents a ton, while the average cost of picking is a little more than $2. The only objection to shaking the fruit off the tree, and that is slight, is that it necessitates more prompt handling by the cutters. It cannot stand stacked up in boxes for two or three days, as each bruise will then develop into a black spot which will show when the fruit is dried.

CULLING FRUIT FOR THE DRIER.—There is a tendency among growers to try to gather and dry everything, no matter how small or inferior it may be. If growers would only learn that fruit is excellent food for hogs and would thus dispose of some of their inferior stuff, it would be much better. The writer has frequently bought fruit at prices which did not pay wages to the grower for cutting and handling it, to say nothing about anything for the fresh product, besides injuring the reputation of the producer, the section in which it was grown, and the State as well as every dealer who touched it. Cull out the little, hard, poor stuff and do not cut it. Stop the expense at once. It is worthless, do not spend any good money on it. It dries up into almost nothing and the weight will never be missed if you leave it out. If you cut it and put it with your good fruit, the buyer will see it and will always imagine when he sees one piece that there is ten times as much poor as there really is and then the price goes off. This grading can best be done when the fruit is picked or shaken from the tree. Instruct your men what to take and see that the other is thrown out. If it is not the worth while to try to feed it to hogs the best place for it is on the grouud under the trees.

CUTTING.—This is a very simple process and requires but little watching. The grower must watch that all the fruit is cut clean around, and each half separated before it is put on the tray. In this way the fruit will have a clean, neat appearance that will be lost if the fruit is cut part way and pulled apart the remainder. The cost of cutting varies with the size of the fruit. It varies from $5 for smaller fruits, such as apricots and plums, down to $3 for large peaches. In large orchards it may be best to grade fruit before cutting, but this is hardly practical in small orchards and had best not be attempted. In spreading fruit on the tray, of course everyone knows it should be placed with the cut side up and as close together as possible without getting one piece on top of another.

TRAYS.—The standard tray used throughout the State is made 2x3 feet in size. The best trays are made of thoroughly seasoned pine sawed one-half inch thick and surfaced on one side. I think those made of three eight-inch boards are best. The boards are nailed on a cleat, 1x1½ inch, two feet long. Use wire nails long enough to clinch on the bottom of the cleat. Put three nails in the end of each board. Don't try to clinch the nails when you drive them by putting an iron under the cleat, but turn the tray over and clinch carefully. Remember that your trays will see lots of hard usage and will need to be as strong as possible. Don't buy trays that are not standard size. You may want to loan them to your neighbor and then they probably would not fit his bleacher. In making trays, if the lumber is quite well-seasoned, don't crowd the boards too close. There wants to be a crack between each board. This crack will soon develop of itself, unless the lumber is unusually well-seasoned.

SULPHURING OR BLEACHING.—In regard to this question there has been much discussion. Some able writers on the subject condemn it. One of the best known and most respected scientists says it should not be done. However, with all due respect to these persons, we must say that the growers of California fruits are not in the business for pleasure. As business men they must conduct their affairs so as to be successful. If they offer goods in the market for sale they must have what the buyers want and are willing to pay for. The buyer says that the goods must be bright, and every year he seems to want them a little brighter than the year before. If they want our fruit light-colored and we can make it so by such a simple method as sulphuring, we have no reason to complain. If they want it black, why we can develop some easy, simple, harmless method of making it black. This may not be "educating people to know and enjoy the rich, fruity flavor of natural fruit," but it is comon sense and good business. We can afford to let scientists discuss the effect of the sulphur fumes as being deleterious to health, but we cannot afford to sell dried peaches for five cents a pound that we might by bleaching get ten cents for. The best bleachers are now made so that they will hold a truckload of fruit, truck and all. They are made about four feet wide by six long and seven high. Each end is made to open out, usually hinged on the top and raised by a weight on a rope passing over a pulley. If the bleacher is thus made, the handling of trays in and out of the bleacher is avoided and there is some saving in labor. Any kind of a four-wheeled truck or car can be used, so that it is wide enough to hold a tray, i. e., three feet, and long enough for two piles, or four feet. From 30 to 40 trays can be put on a car. The car or truck is run into the bleacher, sulphured, then run to the drying ground and the trays scattered out. If much fruit is being handled, it will be necessary to have several cars. For small orchards it is less expensive and almost as good to use the old-fashioned bleacher, which is made so as to receive and hold the trays in place. They are three feet one-half inch wide, four feet eight inches long and six or seven feet high, measurement clear on the inside. The frame is made on the outside and it is then covered with flooring on the inside, so as to have a smooth, light surface on three sides and the top, one end being left for the door, which can be arranged in any way to suit. The bottom may as well be left open. Strips an inch square and four feet eight inches long are then nailed on the sides of the bleacher, making slides or cleats on which to put the trays. These should be three and one-half inches apart, so as to allow the fumes of the sulphur to circulate throughout the whole of the fruit. These cleats should not be run closer to the ground than about 18 inches, which will give room for about 30 trays in a bleacher six feet high.

In putting the trays on the cleats care should be taken that a space is left between the two trays that are on the same cleat, and also between the end of the bleacher and the tray. If the bleacher is made as above stated, four feet eight inches long, there will be nearly three inches space. The fumes of the sulphur are obtained by burning it in any convenient way in an old iron dish, which is sunk slightly in the ground inside but near one edge of the bottom of the bleacher. A very slight draft may be allowed.

The length of time which fruit is to be sulphured is usually stated at 30 minutes. Many growers, however, leave the fruit in the fumes a longer time. There appears to be a difference in the different varieties of fruit, and perhaps a difference also in the soil or amount of moisture in the fruit, that has something to do with the effect of the sulphur on the fruit. Peaches like Susquehanna or Muir, that are naturally bright yellow in color, do not need as much as others which are darker and thicker in their appearance. All these minor points can best be learned by experience. It will pay every one to try a little longer time than 30 minutes, and if better results are obtained by one hour than less, why use more time. As to the kind of sulphur to be used, only the pure, sublimed article should be tolerated. Sublimed sulphur is at least supposed to contain nothing but sulphur, while ordinary ground sulphur contains much foreign matter, in fact, everything that comes with it as it is scraped up naturally where deposited, the process of manufacturing being nothing more than pulverizing, and the clays and other minerals may produce something in their fumes that would be injurious. We would caution growers strongly against the use of common kinds of cheap ground sulphur. The cost of a good article is so slight that no one need think of that. The amount to be used is about one and one-half pounds for a bleacher full of fruit. See that the bleacher is entirely filled with good strong fumes.

TAKING UP FRUIT.—No time can be stated for drying, as it depends entirely on the weather. It is dry enough to take from the tray when the juice cannot easily be squeezed out of it. Never allow fruit to get dry so that it will rattle. It must be leathery and tough. A mass of it in a sack should feel soft and pliable. It should always be taken up in the middle of the day—the hottest part. Eggs of insects, if any have been laid during preceding evening or morning, will then have been killed by the heat.

When emptying the fruit from the trays it is best to cull out all pieces that have not made good dried fruit. All that is too dark, or any small or green fruit, should then be thrown out. The fruit is all spread out before you and it is a very easy matter to take out a few poor pieces.

As soon as the fruit is taken from the tray it should be put at once in a close, tight room, merely dumping it on the floor. This room should have no ventilation, as by this means the rich, fruity flavor is much better retained. It is better also if the room can be kept dark. It goes without saying that no insect life must be allowed in this room. This fruit on the floor should now be shoveled over once in two days, so as to allow fresh air to strike it, else some pieces that were rather green and soft may mold. As it is put in fresh that part may be kept somewhat back from the rest, and as it cures it is piled deeper and deeper and requires less and less frequent shoveling.

This after process of curing fruit is very important, and the grower's success depends very much on how he manipulates his fruit after it comes from the tray. It is owing to the difference in this respect that makes so much difference in estimates of the number of pounds of green fruit required for a pound of dried fruit. One man who understands his business can take 5½ pounds of Muir peaches and make a pound of extra choice dried, while another takes 8 pounds to make a pound of common dried fruit. If you will ponder on these figures you will find a vast difference in the results in dollars.

If fruit once gets too dry it is a rather risky thing to try wetting it. You may make it work successfully, but it is doubtful. The best way is to keep the natural juice in the fruit, all that you can, and have your fruit safe to keep.

PACKING.—There is little call at present for fruit packed in boxes, except for direct trade with the Rocky mountain States and some fancy trade East. The standard boxes are 25 and 50 pounds. In packing, line the box with white paper and face on a sheet of oiled paper. Face the box with nice, bright, average-sized pieces, packed in rows face or pit side down. This, the top of the box, will be filled first, and then the box filled and pressed down and the bottom nailed on. There are various kinds of screw and lever presses, any of which are good.

The package in which the bulk of the crop of California fruit will go to market is the white cotton sack. Use sacks that are heavy enough. There was much complaint last season in regard to light-weight sacks; many receivers say that they arrived torn and damaged. The difference in price is only one cent, and claims for loss will frequently amount to much more than that.

MARKETING.—In marketing dried fruit, as in all other products, each one must be his own judge of what is most advisable. We will only observe that, judging by the past, in seasons of high prices the freesellers have been the lucky ones; that sales previous to or about the time when the goods were ready to deliver, made most money. In seasons of low prices, those who were able to and did hold until very late in the season, until almost the next year, got the best returns. Selling is something, however, that each one knows best about for himself, at least he thinks so.

C. E. WILLIAMS.

DRYING APRICOTS IN SOUTHERN CALIFORNIA.

SANTA ANA, ORANGE CO.

TO THE EDITOR:—The apricot crop is harvested. The rush is over. Now, while all the wisdom of experience is fresh in our minds, we will note thereon for future use; perhaps for the use of others also.

"Shall I dry or sell green?"

Yearly this is the question which presents itself to the mind of the farmer. To dry, there is all the extra work, the responsibility, the extra investment of capital and the risk, and the waiting for returns. So the buyers of the apricot green tempt those who could well dry themselves, as well as those who bought their orchards ready made, and are not really in the fruit-growing business for what there is in it. Pity there are any such. They "rattle" the market and hurt those who look to the return given their fruit for all they have.

But let's look at this matter of selling apricots green. If you do not dry at all, you lose a decided percentage of your crop. You have to pick before they are full weight. The overripe drops and rots. There is no fruit where the waste comes so insidiously. It drops and seems to melt away. But we who have observed the matter closely for years, consider that the saving of the dropped fruit pays for the harvesting of the crop.

When the apricot is sold for shipment green, *i. e.*, not to go to a big drying firm, but to go to Chicago, say, to be sold green, there is still more waste. It is a question, unless a whole orchard is engaged and the dropped fruit saved, whether at $40 per ton, even, it pays as well to sell green as it does to dry. Forty dollars was paid for select fruit to ship as just stated. Fifteen to twenty-five dollars was paid this year for apricots by the drier, but at the average price dried fruit is selling, it is worth to the farmer at least 1¾ cents on the trees. But, to make his profits and interest on capital invested, the big drier cannot afford to pay beyond a certain sum.

I estimate that it costs 2¼ cents to dry the apricot. This counts in current wages for all employed (family and all), cost of everything and interest on plant, such as trays, boxes, etc. Add to this the worth of the fruit green, say at one cent per pound, average price here—we calculate five pounds of green to one of dry. That is the way our fruit runs. This makes 7¼ cents cost to the farmer, staying at home and making good wages. Take 9½ cents per pound, average price paid in July this year, probably, for dried apricots, there is 2¼ cents per pound net profit to the grower. It seems to us that that is good return financially, to say nothing of the peculiar privileges and independence of the farmer's life.

Do you decide to dry, then? We do every year. Even on poor wages; wages, money earned at home, is every way desirable. And the little children can do so much. Our youngest are earning quite a little pile of money picking up and cutting and spreading on trays the dropped fruit from our "white" trees (Large Early); often they were so much picked it did not pay the picker to go over them because the "red" apricots (Early Moorpark) crowded so. We give the children tickets marked "One Tray," and when the crop is sold they cash the tickets.

Having decided to dry, get a good picker. Get good help at anything—be ready to pay what it is worth. A good picker will pick over a ton a day the height of the season, and not throw or tumble his fruit about roughly. He will be patient, too, early and late in the season when it is necessary to go over the trees for small returns—say four or five hundred pounds a day. Of course he will want a good substantial stepladder and a basket with a wide, thick strap attached by which he can sling the basket over one shoulder, where it hangs in front of him and he picks with both hands. He will not knock off a great deal of green fruit at the first picking, but this cannot be altogether

helped. If it is saved out by the "cutters" into a pail kept for the purpose, it can be made into jelly and not wasted.

Shall I hire "cutters" or have a machine? It may sound retrogressive, but we do not believe in any kind of apricot-cutting machine but the human hand. The machines muss the fruit, will not cut the fully ripe, which is best of all for making good dried fruit, and all machines are slower in the long run than expert "cutters," who "lay" as they cut. We pay 15 cents per 75-pound box. It is a good price, but we can always get good help. There are secrets in this hand-cutting of apricots; we teach our help how to make no false motions. One who does not, makes good wages.

Next to pickers and cutters, trays are to be considered. A tray 2x3 feet of "shakes" (split are best, but they are hardly to be had of late, so sawed smooth side up must be used), with "inch-stuff" for the sides and "half-inch" for the ends and crosspiece underneath. This is an important point. Some make "inch-stuff" for ends and "half-inch" for sides. The consequence is that the sides "spring" when weighted and piled high, and in one season's use many will pry off. Besides, the crosspiece at bottom will work loose. But with "inch" sides, the endpiece lapping on can have two nails in each corner, preventing the prying, while the thick sides prevent the springing. As for the staypiece underneath, at each end a larger nail can be used, making the tray much stiffer for handling. Besides, thus made, the different parts are tied together.

Next, stretchers strongly made, of size to hold two piles of trays; as many as you find, you need to handle all the trays. A stone boat and a steady old farm horse to draw the fruit from the orchard is another desideratum. Here we are—the fruit picked, brought up, cut, laid on trays, and—next, there is the sulphur-box and drying-ground.

There is no time in such a brief practical article to discuss the pros and cons of driers and sulphuring. We have studied the matter and discussed it at length in the papers these years back; were, in fact, pioneers in fighting the modes and principles of the reckless sulphurers. But to come down to hard, cold facts—business, in short:

First, as to driers: To make a wide market for our dried apricots, they must compete with dried peaches and apples in the eastern markets. To compete, they must be reasonable in price. To be reasonable in price, all the processes for producing a first-class product that will sell must be made as cheap, simple and effective as possible. Thus only can the producer and those who handle and market the fruit get a fair per cent of profit on the time and capital used for harvesting the crop. We are convinced this cannot be done if driers are used; and in the regions where apricots grow in commercial quantities, not only is fuel too high to make driers profitable, but the climate is such that they are not needed. The best sun-dried product is sold as "evaporated," and is equal to it, if not better. We contend it is better, the chemical action of the sun's rays in drying giving a richer, finer flavor to the fruit. But, and here we come to the much-discussed sulphuring process:

There is no use talking; our dried apricots will not sell in the Chicago market, unsulphured. And, if not sulphured some, moths, the pest of the fruitgrower, will lay their eggs on the fruit. Then to the intelligent fruitgrower, who is also conscientious and would not produce an article containing elements unhealthy to the consumer, comes the question of how much to sulphur to make a fruit that will sell and not be hurtful. We have, to our satisfaction, reached the golden mean at this point: One-half coffeecupful of the best California sulphur to 20 trays in an air-tight sulphur-box; time of process, one hour only.

If you were here, as I write, I would practically show you the importance of the little points in this last sentence. Here are two handfuls of fruit. One is a rich, dark amber hue, shiny, a clear, slightly translucent look to the skin. The other is of a lighter amber hue, more shiny, more translucent. "Yes, I know," you will say. The first is Early Moorpark, the red fruit; the last is Large Early, the white apricot.

You are wrong. They are both Early Moorpark. And the *last* has had twice as much sulphur used, and was twice as long in the sulphur-bath as the first. Eat the first; it is a pleasant, fruity sweetmeat, so to speak. Eat the second, and it stings your mouth; you taste the *sour* for sometime after. The first when cooked, previously slightly parboiled in sodawater, retains all its fruity flavor and loses *all* the little extra acid the surface has taken on in the sulphur-box.

We have come to the sulphur-box. We use a stationary box, holding 20 trays, a small cellar underneath, an opening in the floor of the box, and an outside opening, below the door, to the cellarway.

Your fruit is in. The big door is shut. We take a handful of newspaper, wrinkled so as to make several pockets on top, wrap a smooth piece around and under so no sulphur can fall through. We sprinkle our quantum of sulphur in this bunch of paper, light it and insert it through the outside opening to the pit beneath the box. Then shut all tightly. This paper method gives the sulphur a good start, hastening the process.

There is an empty stretcher resting on horses by the box. A full one of cut fruit in the cutting-room. A man and a stout boy make the change quickly. Out comes the full stretcher and is set on a rest near-by. Out in a trice come the trays from the box and are carried and spread on the drying-ground, protected from all intrusion by a high, wire-netting fence. In goes the freshly cut fruit. It is a short process to those who know how to make every motion tell.

The next step is the *drying*. Let the sun do that. It is unnecessary to cover at night. Neither is it necessary to look over your fruit and select out that which is dry. Let the tray stand till all are dry. Then leave them out one night to gather enough moisture to soften them. Then go out early the next morning and examine the 'cots. If the dry ones of the night before are in the right condition, stack the trays immediately. If too soft, let them lie till the sun dries them sufficiently, so they will not stick together when put into the sweat-boxes. Then stack, and have the fruit put into the boxes the same day.

Then the scraper, with his 2x4-inch piece of steel (cabinetmaker's woodscraper), scrapes the 'cots from the trays into the "sweat-boxes." There they stand 24 hours or more. The moisture on them from the last night's exposure causes them to *sweat* even—they lose their chippiness, are waxy and pliable, but they must have been perfectly cured the day before. No matter if some are overdry, all *must* be dry or they will not keep. And in the sweat-box they must be covered tightly from the moths.

With average drying weather, the apricot will sun-dry in four days. Excessively hot weather is not the best for drying; it scalds the fruit. This year has been the perfection of drying weather—breezy, and of moderate temperature. The "cutters" have needed wraps nearly every forenoon and sometimes late in the evening.

Dried and sweated, the fruit is ready to sack. Buyers have been particular about sacks this year. No second hand sacks allowed—no flour-sacks, as last year. The regulation size, 36x20 inches. Price of sacks to be bought, 8½ to 10 cents. We made our own. Bought of the local dry-goods merchant, Lawrence Mills, LL., for 6½ cents a yard per bolt. Each bolt made about 43 sacks. Cost about 7½ cents per sack. Takes one spool of thread, No. 30, per bolt. We cut off 41 inches for a sack. Cloth 36 inches wide. We use soft-laid twine, No. 6, and a big darning needle for sewing up the sacks.

While sacking, we use a stationary box, fashioned to act as a funnel, about 36 inches from the floor. It has hooks on which to hang the bags. The fruit is dumped, not in very large quantities at a time, into the bag through the wooden funnel. The bag must be "jumped" or "jounced" when most full to make it solid. Well-shaken, they will average 85 pounds in weight when filled and sewed.

As to varieties of fruit to dry, we think the Early Moorpark or Early Royal the finest. The trees, managed rightly in the growing, can be relied on for a good crop. They are not so juicy as the Large Early and dry quicker. This last makes a very fancy brand of fruit, but is not so sweet and rich. The Early Moorpark, dead ripe, ever so "mussy" to cut and handle, makes lovely dried fruit, sweet and waxy. By the way, this soft fruit, if not slightly sulphured, would turn black, sun-dried, and cannot be handled in a cutting machine at all, and does not dry very well in a closed room. But it is on such fruit as this that the rancher who dries his own fruit makes much of his profit and his good wages working at home.

NOTES.

We have about 200 bearing apricot trees. As near as we can calculate now, we shall net $500 from these trees. This is a good investment on capital, even calling the land worth $100 per acre. An Easterner, who is passing his first summer in California, admits this, though he thought land ridiculously high when he came here nearly a year ago.

About five pounds of sulphur is what we allow for a ton of green fruit.

The "cutters" must be watched that they lay the fruit well. It must be cut evenly in two—not one shred of attachment between the two halves—or they will not dry in good shape. Very soft fruit must be shaped a little when laid down. Your cutters must cut all the way around the fruit, not cut pushing the stone ahead of the knife. This leaves a bad, jagged edge. The fruit must, of course, be laid skin-side down. It may be pretty well crowded on the tray.

Soft-laid twine generally sells for 35 cents per pound. One-half pound is ample to sew up 100 sacks.

Allowing four to five days to dry the apricot, 50 trays per ton of green fruit are enough to allow for handling.

Every farmer ought to take some big daily with its weekly report of the eastern markets. It will keep him posted as to fair prices. If he reads and thinks, he will know enough not to ask too high a price for his products, nor sell out at too low a price.

ARTHUR J. TOWNER.

EVAPORATING PRUNES IN OREGON.

At a recent meeting of the Oregon State Horticultural Society, Mr. A. H. Carson read a paper on prune-culture, from which we republish the following upon the use of an evaporator for prunes:

The prune orchard is now five years old—the age when we expect it to become profitable, the age, too, when we must learn the best methods of gathering, evaporating and marketing the crop. Much depends as to the value of the crop on its proper management in evaporating. By reason of our moist climate we must use the evaporator. To begin with, let us understand that no one can cure a first-class prune unless the fruit is ripe, consequently the prunes should be ripe before gathering. The French and Italian are usually shaken from the tree into canvass. The Silver is generally picked by hand, owing to its large size. Where trees are shaken, it should be done gently, so that only the ripe fruit will fall. Before the prunes are scalded they should be graded. It greatly facilitates the handling of a large crop of prunes to grade before evaporating. Prunes of different grades should not be dried on the same tray, as the smaller prunes are liable to overdry unless they are hand-picked, which is a loss of time and labor. After the prunes are graded, the next detail is to scald, or dip, the fruit. Now, the scalding or dipping process is an important detail and should be understood. We use a weak lye of one pound concentrated to 16 gallons of water, and, while scalding, the lye should be kept at a boiling point. The object of scalding is to cure the prune of its bloom and cut the skin to facilitate evaporation. The prunes are put in a wire basket, large enough to hold half a bushel, and are plunged into the boiling lye long enough so that the skin of the prune shows minute cracks, then it is taken out and washed in clean, cold water to remove any lye that may adhere to the fruit. It is then placed on trays and carried to the evaporator. I know there is some prejudice against the use of lye for dipping the prune, but there is no foundation for it, for, if immediately after the prunes are dipped they are thoroughly washed in clean water, no trace of lye can be found, and an analysis will verify this assertion.

Let me impress on your minds that this dipping process is a very important operation that enters into the curing of a first-class prune. When the skin of the prune shows small minute cracks it is done right. The operator should watch the dipping with care, and not scald too little or too much, as it means a superior prune if properly done with a proper evaporation which should follow. For the purpose of this paper we may assume that we have a perfect evaporator, one that dries the prunes properly, quickly and cheaply. It would be a proper question to ask what degree of heat should be used when we first put the prunes into the evaporator. My answer would be 150 degrees, provided your evaporator has a perfect circulation, and without air circulation you will cook the fruit, not evaporate it. This degree of heat expels the moisture and the circulation carries it off. When the prunes are nearly cured, I then increase the heat to 180 or 200 degrees. Finishing the fruit at a high degree of heat brings the pectine, or fruit jelly, to the surface, where it remains, giving the rich amber color which so much enhances its value. The high heat also cures the prune at the pit or, properly speaking, changes the juices of the prune into thick jelly, a condition in which they will keep for an indefinite time, if properly boxed and kept from the moth. In coloring the prunes with high heat, too much care cannot be used by the operator, so as not to burn the fruit. Then, again, do not overdry; a prune does not need to be so dry as to rattle, to keep; a soft, spongy prune is the prune that the market demands. There are many ways of "finishing" the prune after drying, one of which I have used to advantage when they did not present the bright appearance that they should. If over-dried, they can be improved by dipping in boiling hot water for 30 seconds, using one pound of glycerine to 16 gallons of water. This gives the prunes the glossy appearance besides the soft feel.

In regard to packing. For all first and second-grade prunes, I would use 25-pound boxes; for other grades use sacks. Then, invariably stamp the brand on your boxes, if your prunes merit it; let the purchaser know who evaporated them and what State they are from. To prunegrowers of Oregon, I wish to call your attention to a few statistics on prune importation. In 1889 there was imported into the United States 43,717,353 pounds of prunes. Nevertheless, although the prune crop of 1890 had nearly doubled over the year 1889, in that year there was imported 61,905,782 pounds. These figures are all the thoughtful man requires. If they fail to teach a lesson, anything I can say as to the necessity of looking carefully after his prune orchard would be in vain.

FRUIT MARKETING.

The Raisin-Growers' and Packers' Combination.

On Wednesday, August 17, another meeting of those in the raisin interest was held in Fresno, and the proceedings are fully reported in the *Expositor* of that date. Capt. C. H. Norris of Fowler presided and called for the report of the Executive Committee, stating that the committee had met a good many times since the last meeting of the association. The chairman of the committee, D. T. Fowler, then read the following report:

Your committee would desire to preface this report by expressing the great satisfaction they have in reporting that 95 per cent of the growers of the State have responded to the invitation of the association and signed the agreement, which, so far as we know, has been honestly kept, that they, the growers, will only do business with those packers and commission merchants who have contracted not to sell raisins at any price that will pay the grower less than 4½ cents per pound, the minimum price in the sweat box, and also that the packers representing a pack of last season of more than 1,500,000 boxes, have contracted with each other and with the growers to maintain this price conditionally, that the assent of 95 per cent of the packers is obtained to the contract.

In order that the situation may be fully understood by growers who have not attended the meetings of the growers, which have been held from time to time, we would state: First, that at a meeting of the growers held in Fresno on June 22d, a resolution was passed authorizing an agreement, "sometimes called a petition," between growers and packers, agreeing to maintain a price, thereafter to be agreed upon, for raisins as the minimum price in the sweat box.

In pursuance of that resolution, these agreements were forwarded by your secretary to every raisin-grower in the State, and we are happy to report that they have been signed by owners representing more than 95 per cent of the entire raisin acreage of the State.

On July 15th your committee met the raisin-packers at the Hughes hotel in this city, and the result was an agreement, satisfactory alike to your committee, the "grower and the packer." It was reduced to writing and signed by 22 packers in words as follows:

"We, the undersigned, hereby agree to bind ourselves together as a corporation for the purpose of fixing the minimum prices on various grades of raisins, netting the grower 4½ cents per pound in the sweat box, on the average, for good raisins, or as much higher as the market will justify, provided that 95 per cent of all the raisins produced be covered by the agreement now being circulated by the growers, and provided that 95 per cent of the pack of the State be represented by said corporation."

We are informed by Mr. Noble, of Noble Bros., chairman of the packers' committee, that the packers met and agreed upon a schedule of selling prices, based upon a minimum price of 4½ cents per pound for good raisins in

the sweat box. He writes: "We have now the signatures of 22 packers, aggregating about 1,500,000 boxes, and we have promises of several others, who will sign the agreement adopted at the last State convention of raisin-growers. There are some who have declined to sign it at all."

We are informed that as soon as the prices agreed upon by the majority of packers, with the result of the conference, were telegraphed East, several orders were taken for carloads of raisins to be delivered in September and October, at and above the agreed minimum price, but a few days after, some of those packers who had refused to sign the agreement, and others who had signed it, began cutting prices in the Eastern market, and competing one with another. This immediately broke the market to a slight extent, and now the buyers are waiting in expectation of a further drop.

The party who is the greatest enemy to the raisin industry of this State is the packer who does not join this association,but who takes our raisins to sell on commission or who buys at low prices from the wagon, and places them (the raisins) in competition with the raisins belonging to the members of the asssociation.

We, your committee, remembering we all have signed the agreement, demand that we all use every lawful means within our power not to give raisins to such packers to handle in any shape or manner, for if we do, it means ruin to our great industry.

As we have referred to a class of packers who have not joined the association, you may justly ask who they are, and in order to give you what we consider direct information, we give you a copy of the telegram sent to Mr. George Noble, chairman of the Raisin-Packers' Association, by Mr. Frank H. Ball, who was sent to San Francisco to get packers' signatures. It reads as follows:

SAN FRANCISCO, August 11, 1892

To George B. Noble, Chairman Raisin-Packers' Association:—Notify executive committee of growers and packers that Williams, Brown & Co., Cook & Langley, Schacht, Lemcke & Steiner positively refuse to sign agreement establishing minimum prices.

Now, therefore, your committee feel justified in stating to the California Raisin-Growers' Association that they must avoid the firms named in the foregoing telegram. While they remain outside of the association and are cutting prices we regard them as leeches on the whole community.

From information received we have every reason to believe that large orders have been taken by packers who are not in the agreement. They must have raisins to fill their orders, and if the 95 per cent of the growers hold together in the future as they have in the past, those outside packers will be unable to fill their orders, and will have to come into the compact for relief.

Already the firm attitude taken by the growers has resulted in raising the prices. We recommend that you in your general meeting reaffirm your determination to stand together, and if this is done we will receive more than the minimum price agreed for good raisins, namely, 4½ cents per pound.

When the raisins are in the sweat box, all the cooperative companies and the packers in the association are prepared to advance to the grower 50 per cent of the graded price, that is, not less than 2¼ cents on all good raisins in the sweat box. All the cooperative societies in the State have joined the association. Respectfully submitted,

WILLIAM HARVEY, Secretary.

CHARLES H. NORRIS, Chairman pro tem.

During the reading of the report a good many passages of it received hearty applause. On the completion of the reading of it the report was accepted with much enthusiasm by the meeting.

Mr. Williams, of the packing firm of Williams, Brown & Co., one of the firms that refused to sign the packers' agreement, then addressed the meeting at considerable length, and answered questions asked him by various persons.

Mr. Williams stated that his firm has already bought a large quantity of raisins outside of the compact. He did not think that anywhere near 95 per cent of the growers have signed the agreement. He thought that only about 60 per cent of the acreage is represented by the growers' combine. When asked, later on, for the proof of this assertion, he said that he had no proof other than that he had met a great many growers who have not signed the agreement.

Mr. Dore asked the speaker why his firm didn't sign the agreement. Mr. Williams replied that his firm has never cut prices. He thought that there is danger of fixing prices too high, and then the Spanish raisins can come in and supply the market, thus crowding out the California product. Mr. Williams said that the firm has placed prices at such figures as to be able to keep out foreign products.

Mr. Lemcke, of the packing firm of Schacht, Lemcke & Steiner, addressed the meeting and gave as his reason for not entering the combine that he has never yet seen a combination that was satisfactory. There will always be some black sheep in it who will get the best of the honest men. He felt confident that he would get left if he entered into the combine.

The arguments at times grew exciting, and the audience listened with close attention.

Chairman Norris made a short speech, in which he stated that a great storm is brewing and that it is about to burst over the raisin industry, and that these outside packers could help to avert it if they only had a mind to do so.

Mr. Dore then addressed the meeting and said that he believed, from careful observation, that this association, by its action, has raised prices one cent on every pound of of raisins, thereby saving the raisin growers at least $300,000. Had the organization been effected six months ago, Mr. Dore thinks that no less than $500,000 might have been saved.

Geo. A. Noble, of the packers' committee, then reported that the packers had held a meeting all the afternoon, and adopted as the minimum prices for selling raisins the schedule agreed upon by the packers in San Francisco the day before. The prices, as a general thing, were a little lower than those agreed upon a few weeks ago, but the packers outside of the combine had agreed not to cut prices below those agreed upon in San Francisco on August 16th.

Mr. Noble stated further that the firms of Williams, Brown & Co., Schacht, Lemcke & Steiner and Cook & Langley had refused to sign the packers' agreement, but that Mr. Williams had stated to him that he would be willing to enter the packers' association if he could be guaranteed a pack of 100 carloads to be put up on the commission plan.

Mr. Norris stated that he was very sorry to hear that those three firms had refused to join in the movement. "The storm," he added, "of which I spoke this morning, is upon us; but if we growers stand together like men and stay with our agreement, we can weather it through. These packers will have to take the consequences."

Mr. Noble read the prices agreed upon by the packers, and they are as follows: Clusters, $2 per box; three-crown layers, $1 65; four-crown loose Muscatels, faced, $1.45; ditto, unfaced, $1.40; two-crown London layers, $1.40; two-crown loose Muscatels, $1.30; four-crown loose, in sacks, 5½ cents; three-crown ditto, 5 cents; two-crown ditto, 4 cents; third grape, 3¼ cents; seedless Muscatels, 5 cents.

Mr. Williams, of the packing firm of Williams, Brown & Co., then told the meeting that he and Mr. Lemcke had agreed to join with the other packers provided that their firms could be guaranteed 100 carloads of raisins to be packed on commission.

The argument was produced by Mr. Hudson, in behalf of the three independent packing firms, that they buy for cash while the other packers do not. And since they buy for cash they should not be expected to try to compete with those packers who work on a commission basis and have very little money invested.

E. G. Chaddock, of the packers' association, said that he felt confident that if the prices agreed upon by the packers could be sustained, the growers could realize an all-round price of 4½ cents in the sweat box. Old vineyards and first crops might realize as high as 5 cents, while young vineyards would fall below 4½ cents, perhaps.

Mr. Williams and Mr. Curtis both said that they had been informed that some of the commission-packers have guaranteed 5 cents in the sweat box. They asked whether or not this was true. The chairman and several others said they had heard of no such agreement by any packer.

Mr. Kittle asked the convention why the firms that were buying for cash were required to guarantee 4½ cents when the other packers were not even guaranteeing the growers 2 cents?

Mr. Chaddock replied that he believed that the firm he represented would secure for its customers an average of 4½ cents. Mr. Kittle then replied that Mr. Chaddock "believed" 4½ cents would be secured but he guaranted nothing.

The debate grew warmer than the warm evening, and finally Messrs. Lemcke, Williams and Kittle left the room. When the convention saw them going it grew wild with excitement. The chairman asked them to remain, but they refused to do so.

After the convention became quiet again, W. D. Grady made a lengthy speech in which he urged the growers to stand together, for that was the only way to maintain prices. He stated further that any contracts entered into by the outside packers with any growers were not binding, and if there were any growers present who had made such a contract, he would agree to break it free of charge if they desired him to do so.

A resolution was offered by M. J. Lindrose, and read as follows:

WHEREAS, Cook & Langley, Williams, Brown & Co. and Schacht, Lemcke & Steiner have refused to sign the compact.

Resolved, That this convention recommend that every grower in the State refuse to sell to the above-named firms their raisins at any price, but on the other hand patronize such packers as have signed the petition.

J. S Dore then offered a substitute for Mr. Lindrose's resolution. The following is the substitute:

WHEREAS, 1135 growers of raisin-grapes, representing 41,796¼ acres of bearing vines have signed the growers' agreement and joined this State Raisin-Growers' Association, and are pledged upon the honor of each to stand together to protect the mutual interests of all growers; and

Whereas, We, the California State Raisin-Growers' Association, in general meeting assembled, representing over 95 per cent of the raisin acreage of the State, have listened to the remarks before the convention of Mr. Williams of Williams. Brown & Co., who also claimed to represent the firm of Cook & Langley, and the remarks of Mr. Lemcke of the firm of Schacht, Lemcke & Steiner; therefore be it

Resolved, That in our opinion the matter of conducting the raisin business as expounded by the above-named packers is prejudicial to the best interests of the raisin-growers, and tends to reduce the price of raisins; further

Resolved, That as long as these firms remain outside of the packers' organization, and refuse to sign the agreement of the other packers of the State to maintain minimum prices, that we, the State Growers' Association, further bind ourselves not to do business with them in any way; and be it further

Resolved, That we express our thorough disapprobation and contempt of those firms who are operating in a way that will bring ruin to the raisin industry of the State.

Mr. Lindrose withdrew his resolution, and, on motion of Mr. Grady, Mr. Dore's substitute was unanimously accepted with a deafening "aye."

Mr. Dore then moved that the prices submitted by the packers be accepted by the convention, and the motion was carried.

D. T. Fowler addressed the meeting in a short speech, in which he stated that the organization is stronger than ever before, and he felt confident that the movement will continue to be a success.

One grower stated that he had been offered 4¾ cents by an outside firm, but he refused to accept the offer. He wanted to know whether he or any other grower is bound by the growers' agreement not to sell to an outside packer, if that packer offers him more than 4½ cents? The chairman replied that all growers are in honor bound not to sell to any outside packers. "I would not sell my grapes," continued Mr. Norris, "to an outside packer if he were to offer me 10 cents a pound. I wouldn't sell to him at any price."

The following agreement was entered into some time ago by the packers, and was unchanged by yesterday's meeting except the prices:

The undersigned raisin-packers, in consideration of the sum of one dollar, each to the other paid, the receipt whereof is hereby acknowledged, and of other good and and sufficient considerations, do hereby mutually covenant and agree each with the others that they will not during the year ending June 1, 1893, unless authorized so to do by an executive committee to be hereafter elected at a regular meeting of the undersigned, or at a special meeting called for the said purpose, sell or agree to sell at less than the minimum price hereinafter specified, any of the following packs of raisins, viz:

Clusters, 20 pounds, $2.00 per box, minimum price.

Three-crown London layers, $1.70 per box, minimum price.

Two-crown London layers, $1.50 per box, minimum price.

Four-crown loose unfaced, $1.45 per box, minimum price.

Four-crown loose faced, $1.50 per box, minimum price.

Four-crown loose sacked, 6½ cents per pound, minimum price.

Three-crown loose sacked, 5½ cents per pound, minimum price.

Two-crown loose sacked, 4 cents per pound, minimum price.

Three-crown loose boxed, $1.30 per box, minimum price.

Seedless Muscats, 4½ cents per pound, minimum price.

It is further mutually covenanted and agreed to by and between the undersigned, that in the event any of the undersigned shall, during that period, violate any of the covenants of this agreement, it shall forfeit as liquidated damages to the undersigned the sum of two hundred and fifty ($250) dollars on each carload sold below said prices, and said sum shall become immediately due and payable to the remainder of the undersigned upon proof of such violation, and may be collected by an action of debt in any court having jurisdiction, by either of the remainder of the undersigned in a suit brought in its own name for its benefit, and that of the remainder of the parties to this agreement; and it is further mutually understood and agreed that no defense to such action shall be pleaded or proved except denial of the violation of this agreement, or by any covenant thereof.

This agreement shall be in full force from and after the 15th day of August, 1892, until June 1, 1893, provided signatures representing 95 per cent of the raisin pack of the State of California be secured, based on output of last season.

A written notice from the committee, consisting of G. B. Noble, O. B. Olufs and F. Romaine, in regard to the percentage of signatures, shall be official and binding.

Signed this 9th day of August, 1892. Fresno Raisin Packing Co., Fresno Home Packing Co., The Producers' Raisin Packing Co., Noble Brothers, Griffin & Skelley Co., Olivet Packing Co., Fresno Canning Co.

The following have assented and will sign as soon as the agreement can be gotten to them: N. View, E. P. Cook, Curtis Fruit Company, A. G. Bergin, D. D. Hudson, College City Packing Association, T. C. Russell, F. S. Devine of Riverside, A. D. Barling.

On motion of Mr. Gordon, the convention adjourned to meet on Saturday, August 27th, at 1 o'clock.

At a Meeting of the Doyle Fruitgrowers.

SAN JOSE, Aug. 18, 1892.

TO THE EDITOR:—By special invitation, your correspondent was present at the regular meeting of the Doyle Fruitgrowers' Association. The meeting was held in the schoolhouse on the Stevens Creek road, some five miles from San Jose.

The meeting was called to order and the secretary named the subjects for discussion.

"That the Blackbird was the Fruitgrowers' Friend," was considered. A committee had been appointed to consult the farmers, but had requested more time for the subject. They had agreed, as far as the fruitgrowers' interests were concerned, the blackbird was a good bird to eat grubs, the insects on the trees, and attacked the smaller birds that eat a great deal of fruit. It was strongly recommended that some protection be given this bird by the county or State.

It was said that Santa Clara county had a local law that gave protection to the pheasants in that county from being killed.

Considerable talk was given to the fruit question, the prune being principally discussed. Overproduction was thought to be a great question to be looked into, and that all should not go into the growing of the prune, as millions of trees were to be set out in the near future.

One grower remarked that he was surprised that so many of the fruitgrowers did not allow the prune to get fully ripe on the tree; that they rushed them into the market before they had time to acquire the amount of sugar they could have if allowed to remain in the sun longer.

The reports given by members regarding the scales on the trees were a matter of great importance to fruitgrowers.

Mr. Hall, chairman on the committee to investigate Prof. Brown's wonderful tree-wash, reported that experiments had been conducted in Colonel Hersey's orchard, and as that gentleman was present he was requested to state to the society his observations regarding the wash. Mr. Hersey spoke for some time, giving minute details of the tests made, and admitted that the wash, as applied by the agent, possessed some merit as an insect exterminator, but would not recommend it until he had made further tests by material bought in the open market.

The report from Mr. A. Block was about the same, he

also refusing to give it any unqualified recommendation until after at least a year's trial.

In reply to a question, as to the most effective wash against apricot scale, Mr. Lydiard stated that the rosin-wash had killed all scale and greatly benefited his trees, and gives January or February as the proper time to spray.

Fiber culture was at length brought up and was considered favorably by all. It was suggested that an experimental station, to grow ramie roots for the farmers, would be of great value. COR.

TRACK AND HARM.

The Trotting Record Notably Reduced.

Nancy Hanks the New Queen of the Turf.

CHICAGO, Aug. 17.—Maud S. is no longer queen of the trotting turf. The proud position which she has held so long has been wrested from her, and Nancy Hanks reigns supreme. This afternoon, at Washington Park, in the presence of 10,000 spectators, Budd Doble drove the beautiful mare to beat her record of 2:09. She not only beat her own record, but she lowered the world's trotting record from 2:08¾ (Maud S's time) to 2:07¼. The day was an ideal one for trotting. The track was a trifle dusty, but it was as fast as it well could be. The mare was in excellent condition, and before she made the trial the general opinion was that if Nancy Hanks was ever to equal her record of 2:09 this was the occasion.

It was about 3 o'clock when Nancy Hanks first came upon the track. She passed the grandstand while the other horses were scoring, and received but little recognition.

An hour later she went along portions of the track at a 2:20 clip. She was warmly greeted, and after jogging a mile went to her stable and was rubbed down preparatory to the trial heat, which was scheduled for 5 o'clock.

Punctually to the minute the gate at the east end of the track was opened, and Doble drove her out. She was without boots or trappings of any sort, and was hitched to one of the new sulkies with ball gearings and pneumatic tires. Doble walked her slowly to the head of the lower turn and then came back to the wire at a gentle pace.

After waiting until the drag left the track, Doble drove back to the sixteenth pole, and then came down at a smashing gait. Frank Starr, behind the pacemaker, Abe Lincoln, was waiting for him. Starter Walker watched Doble's face intently to see if he wanted the word, but as the mare passed beneath the wire Doble shook his head, and Abe pulled up to await a second trial.

Back to the distance flag went the mare this time and came down at a gentle trot, increasing as she approached the wire. There was a nod from Doble and "go" flashed from Walker's lips as the mare shot like an arrow toward the turn. For the first sixteenth of a mile Abe lost ground steadily. Then Starr urged him on, and at the quarter he was at Nancy's wheel.

There was not a sound in the densely-packed grandstand as the mare flew past the quarter pole in 31½, a 2:06 gait.

As Nancy started along the backstretch, trotting as true as a die, her head well up and her feet striking the ground with the regularity of a pendulum, the crowd began to murmur, "She'll never do it—never in the world." But the old-timers outlined Doble's gray jacket against the picket fence beyond him, and as he passed along so rapidly that the pickets seemed to be going backward, they knew the record was going.

As the mare, still keeping up her beautiful gait, went by the half-mile in 1:03¾, a man in the grandstand called out, "1:04 at the half," and a mighty yell went up from the crowd.

"Keep quiet as she finishes," shouted starter Walker, but the warning was not needed, as the crowd subsided of its own accord. Its own breathless interest in the event kept it quiet.

Not a sound was heard as the mare passed the three-quarter and turned into the homestretch.

Abe Lincoln, under the whip, moved up to Nancy's throatlatch, and Doble spoke gently to her and her feet flew faster than the eye could distinguish them.

"She'll do it; she'll do it!" yelled an irrepressible spectator, and there was a faint yell as the fastest quartet of clattering hoofs ever heard on a trotting-track swept under the wire.

There was a moment's pause, a hasty consulting of watches, and then umbrellas went sailing into the air, accompanied by a loud-lunged howl and Bedlam broke loose. Hats, canes and coats were tossed wildly into the air, and men slapped each other on the back, while others shook hands in sheer delight. Incidentally, they kept on yelling. The loud cheers which kept up told Doble even before he slowed up that the record had been broken, and as he returned to the judges' stand his face was wreathed in smiles.

When he dismounted, he was surrounded by men who wrung his hand; but when he had a chance, he lifted his cap in acknowledgement of the cheers, and there were loud cries for "Doble, Doble!" The veteran reinsman, climbing into the grandstand, again removed his cap in acknowledgement of the wild applause that greeted him.

"Three cheers for Nancy Hanks!" shouted starter Walker, and they came from ten thousand throats with unrestrained enthusiasm.

"Now, three cheers for the man who drove her!" and again the air shivered and everything that was available went skyward. It was fully ten minutes before the tumult subsided.

The official time for the mile, which was as honest a mile as ever trotted, was: First quarter, :31½; half mile, 1:03¾; three-quarters, 1:36½; the mile; 2:07¼. The last quarter was trotted in :30¾.

The exhibition was given for a certain sum, to be paid by the Northwestern Breeders' Association, under whose direction the trotting meeting is being held. An additional sum, the amount of which Doble declines to disclose, to be paid if the record was beaten.

After the excitement had subsided Doble waxed enthusiastic in speaking of the mare and said: "In my opinion she is without a peer on the trotting turf. She was not distressed in the slightest degree at the end of the mile, and finished fresh and strong. Within 20 minutes after trotting a mile in 2:07¼ she could have gone out and trotted very close to it. She trotted true from wire to wire, never lost her head, and did not show the slightest inclination to leave her feet. I did not touch her once with the whip, and only swished it through the air and spoke quietly to her as she entered the homestretch. I will not start her here again, but I have every reason to believe that she will make her present record a back number by the time snow flies. She did the trick so comfortably to-day that I'm sure she can beat it in the future."

Asked if he was aware that he was breaking the record, Doble said: "I knew at the half that Nancy was going to come very close to it. I looked at my watch and saw that she had done it in 1:04, and knew she could at least keep up that gait."

The mare weighed 870 pounds to-day and pulled Doble, who weighed 150, and a sulky of 62½ pounds weight.

Nancy Hanks, the queen of the trotting turf, is a bay mare, 6 years old, 15¾ hands high, and was sired by Happy Medium, out of a Dictator mare.

Abe Lincoln is a bay horse, and was formerly with Forepaugh's circus. Because of his level head, obedience and through reliability he has been taken by Doble as a pacemaker for Nancy Hanks.

NANCY HANKS' PEDIGREE.—BRIEF REVIEW OF HER PERFORMANCES DURING LAST YEAR'S CAMPAIGN.

Nancy Hanks is a brown mare, foaled 1886 by Happy Medium, 400, dam Nancy Lee by Dictator, 113, grandam Sophie (grandam of Mike Wilkes, 2:15¾, etc.) by Edwin Forrest, 49. She was bred by H. Boswell of Lexington, Ky., and is consequently six years old.

Her best time up to yesterday was 2:09, made on the regulation track, at Richmond, Ind., on September 30th, last year. The first time she started last year was at Detroit, on July 23rd, when she trotted to beat 2:14 and lost, only equaling that record. She trotted at Washington Park, Chicago, on August 21st in 2:12¾, having beaten Margaret S on the previous day in two straight heats in 2:20¼ and 2:19, when the latter was withdrawn.

Her next appearance was at Buffalo, N. Y., when she beat Belle Hamlin in a match race in 2:16½. She made 2:12¼ at Rochester on August 13. On August 27 she won that marvelous race, beating Allerton and Margaret S in three straight heats 2:12, 2:12¾ and 2:12. Then she made the record at Richmond, Ind, (2:09) which, however, she has hitherto failed to lower until yesterday. Budd Doble, her driver, is accounted among the best in America.

The Washington Park officials claim that the time—2:08¾—made by Maud S at Cleveland in 1885 is second to the record of Nancy Hanks made to-day. Sunol trotted in 2:08¼ on a kite-shaped track at Stockton, Cal., in 1891, but this performance they declare to be inferior to that of Maud S on a regulation track, which is conceded to be from one to three seconds slower than a kite shaped track.

Nancy Hanks is owned by J. Malcolm Forbes of Boston, who purchased her last year for $45,000.

Sportsmen at Cincinnati claim the the rubber tire is three seconds faster than the kind Maud S used, and that Nancy Hanks must therefore go three seconds better than Maud S to equal her time.

There are now 13 trotters with a record of 2:12 or better, Of this number four were bred in California, viz.: Sunol. Palo Alto, Arion and Stamboul. The following is the roll of honor:

Nancy Hanks	2:07¼
Sunol	2:08¼
Maud S.	2:08½
Palo Alto	2:08¾
Allerton	2:09¼
Jay Eye See	2:10
Nelson	2:10
Arion	2:10¾
Guy	2:10¾
Stamboul	2:11
St. Julien	2:11¼
Delmarch	2:11½
Axtell	2:12

ORANGE-HONEY.—The chief interest a beekeeper has in an orange grove is the honey it produces. In March and April the blossoms come out in profusion, and the air is burdened with their fragrance. The odor is not unlike our old-fashioned lilac of the East. The blossom is slow to open, and not in a hurry to fall; it therefore gives the bee three or more weeks in which to collect the nectar. At present the orange area is not great as compared to sage and other flora; but in a few years, where there are now 1000 orange trees within easy range of an apiary, there will be tens of thousands, for the level sage lands are being reclaimed by irrigation, and planted to orange and other fruits. The bee works all day long on the orange blossoms, and its busy hum rises so loud and earnest as to attract the attention of the most indifferent pedestrian and, although there is an abundance of honey obtained from the orange, there is much more sold in the markets than is obtained. Orange-honey is considered rare and pure orange-blossom honey is rare from the small area in which it is gathered; but, rarities are always sought after, and, of course, the average groceryman has not cultivated his conscience to that superlative degree that will prevent him from calling any nice honey "orange;" and I am somewhat skeptical about there being much purely orange-honey shipped from this State, though there are tons of honey sold as such.—Riverside Cor. Bee Culture Gleanings.

ENTOMOLOGICAL.

Cold Water Treatment for Orange Scale.

MARYSVILLE, Aug. 17, 1892.

TO THE EDITOR:—For more than a year past I have been carrying on a series of experiments with washes on orange trees, with a view of discovering some cheap and effective remedy for the eradication of the yellow scale. I am now ready to announce that the remedy has been discovered. It is the cheapest and simplest in the world, and consists of nothing more than pure cold water.

Orange trees sprayed with cold water under pressure 20 or 30 times during the summer remain absolutely free from scale. I consider the cold water treatment preferable to the gas or rosin-wash treatment. Of course, in the case of a very badly-infested tree, where it is desired to rid it quickly of the scale, some such radical treatment as the gas or rosin-wash would have to be used; cold water would do the work, however, even in the case of a very badly-infested tree, but time would be required.

I began my experiments with a large seedling-orange tree that had been infested with the yellow scale for at least seven years; every leaf had more or less scale on it. The tree was situated in a garden where the city water was convenient. I washed the tree every day with the cold water, piped through the garden hose, for two weeks, then, during the balance of the three months that followed, I washed it about three times a week. At the end of three months nearly every scale had disappeared and the tree had taken on a thick, glossy foliage. The cold water had not only rid the tree of the scale, but it gave to it a new vigorous growth. The next experiment I tried was on three six-year-old orange seedlings. They had been infested with yellow scale for about a year, and a large clump of the foliage about midway on each tree was so badly-infested that the leaves had turned yellow. I first sprayed the trees with weak rosin-wash; then, after waiting two days, I commenced to wash them with cold water; this treatment I kept up for a week. During the following two months I washed them occasionally, and at the end of that time there was not a scale to be found on them. The yellow clump of foliage had become transformed, the old yellow leaves had fallen off and new, green, glossy foliage covered the limbs where the scale had once ravaged the tree.

The philosophy of the cold water treatment is, that it washes the scale bodily off the tree, and where it is kept up it prevents them from securing a new foothold. I do not mean to be understood as saying that one, two, or even three washings will rid an old infested tree of the scale, but 15 or 20 good washings will, and then, if the tree is washed occasionally, there will be no trouble from scale.

From the experience that I have gained in the experiments that I have been telling about, I would go about the work of clearing the scale out of a badly infested orange tree in this wise:

I would first spray the tree with a fairly strong rosin-wash; this, if properly done, would kill and injure at least 75 per cent of the scale. I would then prune out those parts of the tree where the scale was the thickest. After waiting three days or so, I would direct a stream of cold water into the tree, and wash every part very carefully. After this treatment, it would be found that most of the scale had been washed bodily off the tree. I would wash the tree with the cold water every day, or twice a day, for the next two weeks; after that, I would wash it two or three times a week until the rains came. If the tree had been very badly infested, I would give it some rich fertilizer, which would make the leaves come out rich and vigorous-looking.

The cold water remedy is surely the cheapest and simplest that could be devised, and there is no excuse for allowing a tree that is situated close to a hydrant, from which water under pressure can be drawn, to harbor the destructive yellow scale.

Where infested orange trees are situated in an orchard, it would pay to pipe water to each tree to be used for spraying and irrigation purposes. The whole system of irrigation as now practiced could thus be changed. Instead of allowing the water to run in ditches to each tree, it could be piped and first sprayed over the trees. A series of experiments now being carried on in Florida makes it seem probable that this system of spraying the irrigation water over the tops of trees will soon be in vogue.

G. W. HARNEY,
County Horticultural Commissioner.

Honeydew and Ladybird.

SANTA CLARA, Aug. 15. 1892.

TO THE EDITOR:—Will you please explain the cause of so much gum on the leaves of the prune at this time, when the trees are bearing fruit. Please find sample enclosed.

I send also a ladybug that seems to be very industrious on my trees, looking for the scale. Please advise me if this is the true species introduced by the State or not, so that I may inform our "Farmers' Club." By giving an answer to the above you will oblige an old reader of the RURAL.

A. R. W.

[The gum on the leaves is "honeydew." It is an excretion from the scale insects which are very abundant on the specimens sent. This honeydew appears on the leaves of trees effected either with leaf-aphis or scale insect. After a time a black fungus grows upon this honeydew and the leaves and fruit become "smutty." Kill the insects and the smut does not appear.

The ladybird sent is *Chilocorus bivulnerus*—"the twice-stabbed ladybird." It is a native insect and, of course, not one of those imported from Australia. It is a good scale-eater, and in some parts of the State is credited with greatly reducing the scale.—ED.]

MISCELLANEOUS.

There are 110 men belonging to the Brewers' Union of this city now out on strike.

THE horseshoers of this city are all busy. There are very few idle men belonging to the the union.

THE engineers of the San Francisco and Great Salt Lake railway are now surveying just east of Reno.

CLAUS SPRECKLES has got two agents in Kern county looking for a suitable location for a beetsugar refinery.

THERE were 238 banks doing business in California on July first last, with resources amounting to $301,046,944.

THE North Pacific Coast railway has contracted for a new ferry steamer, and will soon enlarge its slip at Saucelito.

STEPS are being taken for the development of the artesian belt of Alvarado with a view of supplying the town of Haywards.

A SIXTY-FIVE THOUSAND DOLLAR high school is to be erected at Redding this year; also a $25,000 Y. M. C. A. building.

THE big lumber raft at Fort Bragg, Mendocino county, will be ready for launching this Saturday, and will then be towed to this port.

THE electric road from Ventura into the Ojai valley has been graded for four miles from Ventura and the track is down for two miles.

THE Marin County Water Company is building another large distributing reservoir on the top of one of the hills behind San Rafael.

WORK is to be resumed on the new Bear valley dam at once. The dam was to be begun last season and built up a distance of 15 feet.

The Ladies' World's Fair Society of Fresno county will distribute free at Chicago 2500 pounds of raisins, put up in small souvenir boxes.

LABOR COMMISSIONER WALTS has started an inquiry in the matter of unemployed workingmen, with a view to ascertain, if possible, the cause.

ON the 1st of September the California State Board of Trade will move their exhibit into and occupy the entire basement of the Crocker building.

BUILDINGS for the Carlson-Currier silk factory in Petaluma, are nearly ready for the machinery, which will be all in place and in running order by the 1st of October.

NEARLY all the buildings at Vacaville injured by the earthquake of last April have been repaired, and in every case the buildings erected have been improvements on the old ones.

D. W. EARL & CO. has been kept busy during the past two weeks putting the big freight wagons in repair in anticipation of an increase of business between Hawthorne and Bodie.

CONTRA COSTA COUNTY is becoming quite an object of interest for capitalists of late, owing to the many projected railroad schemes and the fact that most of the lines enter and cross the county.

THE Palermo Land and Water Company and the Pacific Improvement Company have jointly contracted to build a $50,000 hotel at Palermo. A. Page Brown is the architect, and the structure will be a picturesque summer hotel.

IT is reported that the Ducey Timber Co. of Michigan has purchased the mills, flume, timber, track, logging railway, etc., of the Kings River Timber Co., on Kings river, Fresno county. This is the plant of Moore & Smith.

OVER 100 people from Santa Rosa are employed by the Sebastopol Packing Company, and a special train is run between the two towns for their accommodation. The company is shipping from one to three carloads of fruit daily.

A SATISFACTORY understanding has been reached by the parties interested in the proposed starch factory at Petaluma, and the necessary buildings and machinery will be in readiness to commence work as soon as the potato crop is ripe.

THE Sante Fe company is arranging with San Diego citizens to send out another "California on Wheels." A special car will be fitted up with an exhibition of southern California products and hauled through the East. It will start eastward on the 22d inst.

A. LUSK & CO. have increased the working force at their fruit-canning establishment at Brannan and First streets. Business was so rushing that the addition of 500 women and girls was necessary to take care of the immense supplies of stock shipped in from all directions.

THE beet sugar factories of Watsonville and Alvarado will start up on the 20th inst., with double the capacity of last year. The Chino factory has been running for about a month, and is turning out 1000 sacks of sugar a day, which is three times the amount produced last year.

DR. MAHONEY and his partners have let the contract for building their dam on the Agua Fria, Arizona. It will be one of the largest in that section and will place the Harqua Hala country in a position that both its mines and farms will have sufficient water. A large number of people are now locating land under the canal that will be taken out at the dam.

A TUNNEL 1140 feet long on the Fort Bragg Logging Railroad, Mendocino county, was completed on Tuesday, connecting Pudding creek with the Noyo river, where the Fort Bragg Redwood Company will carry on logging operations this season. The tunnel opens up a fine body of timber, miles in extent, where an ax has never been struck except for ties.

PARTIES have leased 1000 acres of land, lying partly on the Briones Ranch and partly on the Sobrante Rancho, Contra Costa Co., from Simon Blum and G. O. Miner, and will proceed immediately to erect machinery for the purpose of boring for oil or petroleum. The parties referred to are experts in the business, and have bored many wells in the southern part of the State.

WORK has begun at Fresno on the Pine Ridge flume and several hundred laborers are on the ground. It is expected to build one mile per week. The flume will be the largest in California, although not the longest. It will be double; one part for floating lumber and the other part for carrying water for irrigation. By means of the flume it is expected to irrigate 40,000 acres of land northeast of Fresno.

THE San Luis and San Joaquin Railroad Company has been incorporated with a capital stock of $1,000,000 to construct a railroad northward from San Luis Obispo to El Moro, a distance of about 10 miles. There is a good bay at El Moro, but its entrance is obstructed by a rock, which could be removed without any very great expense. Vessels of deep draught cannot now enter the bay, though coasting schooners do so.

THE Tolmans Landing and Vallecitos Railroad Company has filed with the county clerk a certificate of the creation of a bonded indebtedness to the amount of $500,000, as determined upon at a meeting at which 153,000 of the 225,000 shares were represented, being 3000 more than two-thirds of the capital stock issued. George B. Tolman is president, B. Austin secretary, and with L. B. Hopkins, Marian Tolman and Robert Gilbert constitute the directors.

AT the State Prison, at San Quentin, work on the new jute mill is progressing as rapidly as can be expected. The walls are nearly completed. The full force of prison carpenters will be put to work on it and no difficulty is anticipated in getting the entire building under cover before the first rains set in. A portion of the looms have been received from Oakland and properly stored, and the Warden is in receipt of bills of lading from England for the spinning machinery of the mill, ordered through the Union Iron Works.

THE work of closing the gap on the coast line railroad of the S. P. Co. between Santa Margarita and San Luis Obispo is being pushed rapidly. A large gang of workmen is at present building stone culverts on the extension, and they are getting ready to commence tunelling the mountains. When the line is completed, overland trains will be put on to run between San Francisco and New York. The southern overland trains will no longer have to come over the Tehachapai and valley route. San Jose will then be on an overland line. Some very extensive tunnel work is to be done on the new line this side of Santa Barbara.

CONTRACTS were signed this week at Bakersfield, Kern Co., guaranteeing the construction of the East Branch Canal. This canal company has purchased water from the Kern Island Canal and Irrigation Company, and the new canal will divert water from the Kern Island Canal immediately northwest of east Bakersfield. The new waterway will run through the streets of Bakersfield and to the southeast for 25 miles. It will bring under irrigation 30,000 acres of choice fruit lands, which have previously been idle for lack of water. The new canal is under contract to be completed by January 1, 1893, and the charges will be $1.50 per acre per year.

AN overstocked market has placed on foot a scheme to control the lumber interests of the Pacific coast, with a view to bracing up the trade. No definite plan has been adopted yet, but propositions have been submitted to millowners from Alaska to southern California. The combine proposes to run the lumber business of the coast in the matter of limiting the output which has been such as to drug the market and bring about the present dull condition of trade. Puget Sound mills have swamped the yards here and elsewhere, and something must be done to revive trade. If the scheme goes through it will be the largest trust of the kind on record. The plan is to bring the mills of British Columbia, Puget Sound and Gray's Harbor into the combine and subsidize the smaller concerns on the coast.

SOME important improvements, which will greatly increase the traveling facilities in the Yosemite valley and enhance its beauty, are being considered by the Yosemite Valley Commission. At the last meeting of the executive committee, Professor Lowe of Pasadena was appointed to investigate the practicability of building an electric road through the mountains for the transportation of tourists. Secretary Irish states that there is abundant waterpower to run a sufficient number of dynamos to light the entire valley. It is proposed to utilize part of the current for electric light purposes, and the larger and more picturesque falls are to be lit up at night in a similar manner as are the great Niagara Falls, introducing a novel feature which will prove a great attraction to travelers coming to the State.

EXTENSIVE improvements at the Benicia tannery, made under the supervision of the manager, Mr. J. Kullman, double the capacity of the institution and make it the most complete tannery on the coast. A new two-story building 150 by 30 feet has been put up to contain the bark leeches or vats, and a new appliance after the manner of conveyors has been constructed to deliver the ground bark to the vats, and to also remove it therefrom, after its strength is spent, to the furnaces, where it is used for fuel. The conveyors deliver the bark from the mill to the vats by an overhead route, and remove it from underneath by means of trap doors in the bottom of the vats. Two new barkmills and a cutter have been put in. A new two-story engine-house has also been erected, and in it has been placed a fine, large, powerful engine of 125-horsepower with a 14-foot wheel. The new engine will supplant the two small ones which formerly did the work of the institution. A short time ago a new or duplicate set of furnaces was put in and also an additional boiler.

Care of Tools.

The wooden parts of tools, such as the stocks of planes and handles of chisels, are often made to have a nice appearance by French polishing, but this adds nothing to their durability. A much better plan is to let them soak in linseed oil for a week, and rub them with a cloth for a few minutes every day for a week or two. This produces a beautiful surface, and at the same time exerts a solidifying and preserving action on the wood.

The following recipes complied by *The Tradesman*, are recommended for preventing rust on iron and steel surfaces.

1. Caoutchouc oil is said to have proved efficient in preventing rust, and to have been adopted by the German army. It only requires to be spread with a piece of flannel in a very thin layer over the metallic surface, and allowed to dry up. Such a coating will afford security against all atmospheric influences, and will not show any cracks under the microscope after a year's standing. To remove it the article has simply to be treated with caoutchouc oil again and washed again after 12 to 24 hours.

2. A solution of indianrubber in benzine has been used for years as a coating for steel, iron and lead, and has been found a simple means of keeping them from oxidizing. It can be easily applied with a brush, and is easily rubbed off. It should be made about the consistency of cream.

3. All steel articles can be perfectly preserved from rust by putting a lump of freshly burnt lime in the drawer or case in which they are kept. If the things are to be moved—as a gun in its case, for instance—put the lime in a muslin bag. This is especially valuable for specimens of iron when fractured, for in a moderately dry place the lime will not want renewing for many years, as it is capable of absorbing a large amount of moisture. Articles in use should be placed in a box nearly filled with thoroughly slacked lime. Before using them rub well with a woolen cloth.

The following mixture forms an excellent brown coating for preventing iron and steel from rust: Dissolve two parts crystallized iron chloride, two antimony chloride, and one tannin in four of water, and apply with sponge or rag and let dry. Then another coat of paint is appled, and again another if necessary, until the color becomes dark as desired. When dry it is washed with water, allowed to dry again, and the surface polished with boiled linseed oil. The antimony chloride must be as nearly neutral as possible.

5. To keep tools from rusting, take half an ounce of camphor, dissolve in one pound melted lard; take off the scum, and mix in as much fine black lead(graphite) as will give it an iron color. Clean the tools and smear with this mixture. After 24 hours rub clean with a soft linen cloth. The tools will keep clean for months under ordinary circumstances.

6. Put one quart freshly slacked lime, half pound of washing soda, half pound of soft soap in a bucket and sufficient water to cover the articles; put on the tools as soon as possible after use, and wipe them up next morning, or let them remain until wanted.

7. Soft soap, with half its weight in pearlash, one ounce of mixture in about one gallon boiling water, is in every day use in most engineer's shops in the drip-cans used for turning long articles brought in wrought iron and steel. The work, though constantly moist, does not rust, and bright nuts are immersed in it for days until wanted, and retain their polish.

8. Mix slowly together six ounces or eight ounces lard to one ounce resin, stirring till cool; when it is semi-fluid it is ready for use. If too thick it may be further let down by coal oil or benzine. Rubbed on bright surfaces ever so thinly, it preserves the polish effectually, and may be readily rubbed off.

9. To protect metal from oxidation, polished iron or steel, for instance, the requisite is to exclude air and moisture from the actual metallic surface; therefore, polished tools are usually kept in wrappings of oil cloth and brown paper, and thus protected they will preserve a spotless face for an unlimited time. When these metals come to be of necessity exposed in being converted to use, it is necessary to protect them by means of some permanent dressing, and boiled linseed, which proves a lasting covering, as it dries on, is one of the best preservatives, if not the best. But in order to give it body it should be thickened by the addition of some pigment, and the very best, because the most congenial of pigments is the ground oxide of the same metal, or, in plain words, rusted iron, reduced to an impalpable powder, for the dressing of iron and steel, which thus forms the pigment or oxide paint.

10. Slack a piece of quicklime with just enough water to cause it to crumble in a covered pot, and while hot add tallow to it and work into paste, and use this to cover over bright work. It can be easily wiped off.

11. Olmstead's varnish is made by melting two ounces resin in one pound fresh, sweet lard, melting the resin first, and then adding the lard and mixing thoroughly. This is applied to the metal, which should be warm, if possible, and perfectly cleaned; it is afterward rubbed off. This has been well proved and tested for many years, and is particularly well suited for planished and Russian iron surfaces, which a slight rust is apt to injure very seriously.

RUST REMOVERS.

1. Cover the metal with sweet oil, well rubbed in, and allow to stand for 48 hours; smear with oil applied freely with a feather or piece of cotton wool after rubbing the steel. Then rub with unslacked lime reduced to as fine a powder as possible.

2. Immerse the article to be cleaned for a few minutes, until all the dirt and rust is taken off, in a strong solution of potassium cyanide, say about one-half ounce in a wine glassful of water; take it out and clean it with a toothbrush with some paste composed of potassium cyanide, castile soap, whiting and water mixed into a paste of about a consistency of thick cream.

The Home Circle.

The Reward.

Who looking backward from his manhood's prime
Sees not the spectre of his misspent time?
And through the shade
Of funeral cypress planted thick behind,
Hears no reproachful whispers on the wind
From his loved dead?

Who bears no trace of passion's evil force,
Who shuns thy sting, O terrible Remorse?
Who does not cast
On the thronged pages of his memory's book
At times a sad and half-reluctant look,
Regretful of the past?

Alas! The evil which we fain would shun
We do, and leave the wished-for good undone.
Our strength to-day
Is but to-morrow's weakness, prone to fall,
Poor, blind, unprofitable servants all
Are we alway.

Yet, who thus looking backward o'er his years
Feels not his eyelids wet with grateful tears
If he hath been
Permitted, weak and sinful as he was,
To cheer and aid in some ennobling cause
His fellowmen?

If he hath hidden the outcast, or let in
A ray of sunshine in the cell of sin;
If he hath lent
Strength to the weak, or in his hour of need,
Over the suffering, mindless of his creed
Or home, hath bent,

He hath not lived in vain. And while he gives
The praise to Him in whom he moves and lives
With thankful heart,
He gazes backward, and with hope before,
Knowing that from his works he nevermore
Can thenceforth part.

—John G. Whittier.

An Adventure With a Skull.

"I presume that a man of your skeptical mind and iron nerve has a great contempt for people who believe in ghosts or in other supernatural terrors?"

"I had such a contempt once, but I was completely cured of it years ago."

"You surprise me. May I ask whether you healed yourself or employed the services of some other physician?"

Dr. Weymouth caught the humor in the remark of the young medical student who was questioning him, and laughed.

"I was cured by something worse than a physician," he replied.

"What was it?"

"A human skull."

"Your story must be a strange one."

"It is; but I will not tell it to you unless you will solemnly promise not to repeat it."

"Why so much secrecy?"

"It is not necessary to satisfy your curiosity now. My reason will be plain to you when my narrative is ended."

"Very well; I promise."

"To give you a thorough understanding of my singular experience, it is necessary for me to recall a series of events which preceded the supernatural horror which I shall describe.

"When I began to practice medicine in a small inland city, I became acquainted with a beautiful girl, who so charmed me that I sought her society frequently. I have since learned that she regarded me with favor, and no doubt I would have conducted a regular courtship which would have ended in a happy marriage had it not been that entirely unexpected circumstances suddenly separated us. My father was stricken with a fatal illness, and my presence was required at his home in Massachusetts until his death, which took place after I had been with him six months. When I returned to the West and resumed my medical practice, I learned to my great chagrin that Miss Wilkins, the girl to whom I had been so attentive, was engaged to be married to a young lawyer named Godwin. He had been as rapid in his love affair as I had been slow in mine, and I then learned the bitter lesson which many other young men who have been dilatory in courtship have also learned, that if a prompt and zealous rival appears, and he is pretty sure to do so if the girl is highly attractive, he will win the prize during the absence of even a few months on the part of the dilatory suitor.

"Of course there was nothing for me to do except to accept the inevitable. I bore my disappointment as best I could and gave assiduous attention to the duties of my profession. Meanwhile, I learned that I was not the only disappointed suitor. Mr. Callahan, a handsome photographer, had tried to win the hand of Miss Wilkins during my absence in Massachusetts, but he soon found that Godwin was preferred to himself. Callahan was a moody and disagreeable fellow in spite of his good looks, and I was decidedly glad that he had been unsuccessful. Knowing what his disposition was, I was surprised to observe that after Miss Wilkins had become Mrs. Godwin, he cultivated the the husband's acquaintance, and within a few months became his intimate friend. I often saw them together and used to wonder whether Callahan was sincere in his friendship. Several years passed away and brought about interesting changes. Godwin, who was a pleasant fellow, but was not a man to heed the claims of morality when they strongly conflicted with his inclinations, fell an easy victim to the wiles of a fair adventuress. He kept his infatuation well concealed from his wife, however, and she was entirely unsuspicious until she finally discovered his unfaithfulness in a most singular manner. One night, when Mr. Godwin was absent on a long journey, his house was entered by a burglar who went to the library and broke open a desk in which Mr. Godwin kept private papers and letters, and which was never left by the owner unlocked. In the morning Mrs. Godwin found the contents of the desk scattered on the floor, and among them a package of love letters from the adventuress. The cat was now out of the bag, and the wronged wife instituted proceedings for a divorce, which was granted. Soon after she had accomplished her object, the community was startled by the news that Callahan had been arrested on the charge of having committed the burglary. At the trial, during which the courtroom was crowded, on account of the high social standing of the prisoner, his guilt was skillfully proved by a chain of circumstantial evidence. It was shown that the photographer after breaking into the house had committed but one offense. He had opened the desk and scattered the papers that he had found in it, but he had stolen nothing. The mystery was great until the prisoner confessed that he had entered the house for the sole purpose of furnishing Mrs. Godwin with evidence that her husband was untrue to her. His intimacy with Godwin had enabled him to discover where his friend kept the disreputable love letters, and then he thought out his mean plot by which he effected the scattering of the letters, so that Mrs. Godwin, for Mr. Godwin he knew was was away, would be certain to discover them the next morning. Of course the natural supposition would be that the house had been entered by a common burglar, and that before he had had time to steal anything he had been frightened away by some noise. But, in spite of his precautions, the photographer failed to conceal his guilt, and only a part of what he desired happened. The divorce was brought about, but Callahan's hope that he might subsequently marry Mrs. Godwin, and derive benefit from the large fortune which she held in her own right, was blasted. He had cultivated her husband's acquaintance for years, for the purpose of finding an opportunity for the gratification of his evil desires. The opportunity had at last come, but in his attempt to use it, he had been thoroughly thwarted.

"Although he had stolen nothing, the act of breaking into the house constituted burglary, and he was sent to prison for a few years. It is here interesting to note that the manœuvres which brought ill-luck to Callahan brought good luck to me. Soon after he went to prison, I married Mrs. Godwin and have since lived happily with her. During his imprisonment, the photographer brooded over his troubles, and when he was released, he was in a murderous mood. One evening, while my wife and I were walking in a thinly-settled district of the city, we were startled by two pistol shots fired in rapid succession by some one behind us. I turned around and, running a few feet back, grappled with our assailant. I threw him upon the ground, and succeeded in holding him there until two men who happened to be in the vicinity hurried to my assistance. The villain was Callahan, who had secretly followed me and my wife until there was a favorable opportunity for him to attempt murder. He cursed me in a frightful manner when he found that he was a prisoner. A second time he was punished by being incarcerated. Three years later, knowing that he had a disease that would soon end his life, he bequeathed his remains for anatomical purposes to the physician of the prison, to whom he had taken a great liking. I was well acquainted with this doctor, and as a token of his esteem he presented me with Callahan's skull, he being well aware that I was at that time engaged in making a choice collection of skulls of all sizes.

"The skull was placed in my collection, which was kept in a closet connected with my office, and I thought no more about it until one day I was seized with the desire to see how the skulls would look when arranged so that they could all be seen at once. Accordingly, I placed them in three rows on a broad table in my office, Callahan's being in the center of the front row, being accorded, as it were, the place of honor. I had just seated myself in a chair for the purpose of gazing at the array in an admiring manner when a messenger arrived and asked me to visit a patient whose symptoms had suddenly become alarming.

"It was late at night when I returned to my office. I lighted a gas jet, but turned on so little gas that the flame was small. I seated myself in the chair which I had left when disturbed by the visitor, and gazed at the skulls which were about ten feet distant. They looked uncanny, unearthly, perhaps, is a better word, in the dim light. I had always prided myself on not being superstitious, and had frequently laughed at friends who stood in awe of the supernatural. But somehow as I gazed at that ghastly array of grinning skulls, listened to the solemn tick of a great clock that rested on top of a desk, felt that I was alone and that all of the people in the city except a few watchmen were sleeping, I felt a chill run down my back, and my heart began to thump as the thought came to me that those skulls might move against me. Might not Callahan, who had tried to kill me, who had hated me intensely during his second term of imprisonment, be able to introduce his troubled spirit into his skull, marshal the spirits belonging to the other skulls, each spirit in its appropriate receptacle, and as a horrid death's army, so to speak, swoop upon me and quickly batter out my brains. It was a fantastic, an utterly absurd idea, but it was nevertheless the kind of idea that disturbs a person when the nerves are shaky.

I soon recovered myself, however, and smiled with contempt for my momentary weakness. But the next instant a frightful fascination compelled me to stare at the skull of Callahan. There was a slight noise in it and it actually moved a little. The lidless eyes appeared to glare and the jaws about the gaping mouth to move up and down. I sprang to my feet and grasping the back of the chair with both hands, raised it in readiness for an attack. The skull moved again, more decidedly than before, and I trembled all over. There was a loud rattle, a big movement of the skull, it crashed to the floor and bounded to my feet. I jumped so high that my head grazed the ceiling, and as I came down, the skull shook violently, turned over, and out sprang a big rat that scampered across the floor and disappeared.

I felt sheepish enough. I had been frightened like a child by something that was as far removed from the supernatural as anything that could well be imagined. I never dared speak of the occurrence to my friends lest the story should reach the ears of the doctors at the city hospital, and cause them to overwhelm me with ridicule. Remember your promise, for if you should reveal what I have told you, my reputation as a doctor who has an iron nerve would be lost forever."—J. A. Bolles in American Cultivator.

The Height of the Tallest Man. Turner, the naturalist, declared that he once saw, upon the coast of Brazil, a race of gigantic savages, one of whom was 12 feet in height. M. Thevet of France, in his description of America, published at Paris in 1575, asserted that he saw and measured the skeleton of a South American which was 11 feet 5 inches in length. The Chinese are said to claim that in the last century there were men in their country who measured 15 feet in height. Josephus mentioned the case of a Jew who was 10 feet 2 inches in height. Pliny tells of an Arabian giant, Gabara, nine feet nine inches—the tallest man in the days of Claudius. John Middleton, born at Hale, in Lancashire, in the time of James I, was nine feet three inches in height; his hand was 17 inches long and 8½ inches broad, says Dr. Plott in his "History of Staffordshire." The Irish giant Murphy, contemporary with O'Brien, was eight feet ten inches. A skeleton in the Museum of Trinity College, Dublin, is eight feet six inches in height, and that of Charles Byrne in the Museum of the College of Surgeons, London, is eight feet four inches. The tallest living man is Chang-tu-Sing, the Chinese giant. His height is eight feet three inches. Tid-Bits.

"You look awfully blue. What is the matter with you?"

"That editor has sent back my last batch of poems. I wish I knew how to get his good-will."

"That's easy enough done."

"How am I to do it to put him in good humor?"

"Don't send him any more of your poetry."

Old Martel—Whiskey has very different effects in different parts of the city.

Rowne de Bout—You don't say so?

Old Martel—On the Bowery it causes drunkenness, on Wall street alcoholism and on Fifth avenue heart failure.

Unguarded Gates.

Wide open and unguarded stand our gates,
Named of the four winds—North, South, East and West;
Portals that lead to an enchanted land
Of cities, forests, fields of living gold;
Vast prairies, lordly summits touched with snow;
Majestic rivers sweeping proudly past
The Arab's date-palm and the Norseman's pine—
A realm wherein are fruits of every zone,
Airs of all climes, for lo! throughout the year
The red rose blossoms somewhere—a rich land,
A later Eden planted in the wilds,
With not an inch of earth within its bound
But if a slave's foot press it sets him free!
Here it is written Toil shall have its wage
And Honor, honor, and the humblest man
Stand level with the highest in the law.
Of such a land have men in dungeons dreamed,
And with the vision brightening in their eyes
Gone smiling to the fagot and the sword.

Wide open and unguarded stand our gates,
And through them presses a wild, motley throng—
Men from the Volga and the Tartar steppes,
Featureless figures of the Hoang-Ho,
Malayan, Scythian, Teuton, Kelt and Slav,
Flying the Old World's poverty and scorn.
These bringing with them unknown gods and rites,
Those tiger passions, here to stretch their claws.
In street and alley what strange tongues are these,
Accents of menace alien to our air,
Voices that once the tower of Babel knew?
O, Liberty! White Goddess! Is it well
To leave the gates unguarded? On thy breast
Fold Sorrow's children, soothe the hurts of fate,
Lift the down-trodden, but with the hand of steel
Stay those who to thy sacred portals come
To waste the gifts of freedom. Have a care
Lest from thy brow the clustered stars be torn
And trampled in the dust. For so of old
The thronging Goth and Vandal trampled Rome,
And where the temple of the Cæsars stood,
The lean wolf unmolested made her lair.

—Thomas Bailey Aldrich in the Atlantic.

Sunburn.

Persons with sensitive complexions often experience considerable suffering from simple sunburn. The remedy in such cases is care in protecting the complexion in midday, and the use of some simple lotion to heal the blistered and irritated skin. One of the best unguents for this purpose is a cold cream made of almond oil or of sweet olive oil. A simple camphor-ice rubbed over the flesh is also efficacious, and a single application will often bring relief in a night.

Where one is certain to be exposed to a strong sun in riding or rowing, it does no harm to make some preparation for it. Do this in exactly the same way that you protect your face from the wind in winter. Rub the skin with a simple, soft cream and, if you wish, powder it well. Wipe off any surplus powder or oil, and when you come in, cleanse the complexion thoroughly with warm water and a little pure Castile soap, if it does not irritate your skin.

It is impossible to give advice in a case like this to all, as certain complexions are especially sensitive to some one ingredient which is soothing to others. Glycerine is extremely irritating to many complexions because of the tendency it has to dry the skin. This may be partly overcome by mixing it with a certain amount of rose water. But a simple cold cream is one of the most suitable and harmless things that can be put upon the skin, furnishing the pores as it does with needed nourishment; and there are very few complexions, except oily ones, with which it does not agree. Oily complexions need no lotion of any kind, but they should be wiped with cologne and dusted with some simple powder to remedy this defect, which becomes a painful disfigurement in warm weather.

It is a great mistake to expose the complexion unnecessarily in summer. All the tonic effects of country air and life may be enjoyed without parching the skin or turning it brown with tan. The positive injury done to the skin in a single season by carelessness does more to increase wrinkles and turn the individual old before her time than all the harmless lotions in the world will remedy. The rule in all cases is care. An ample hat or sunshade which protects the face is an essential part of the summer outfit.

Our ancestors laid great stress on this point, but they stayed indoors too much. They knew few of the present joys of outdoor athletics. In the reaction of the present time, which demands greater outdoor freedom for women, we may have gone too far in mistaking the bronze cheeks for the certain signs of health. A complexion soft and pure as the lily may accompany as robust a physique as one tanned in the winds of March or bronzed in the sun of August. N. Y. Tribune.

A Cool Head.—There is nothing that conduces to such a successful meeting of emergencies better than a cool head, with a perfect confidence that everything is going to come out all right. Whether things are "coming out all right" or not, at least the

feeling of quiet self-control makes one better able to work toward the good result. To a mother this self-possession is invaluable. In a large family, small events calculated to upset the domestic machinery are constantly occurring. It seems to be a law of nature that children should continually have hairbreadth escapes, and come within an inch of losing their lives, but it is equally a law of nature that they should escape; and whenever the critical moment arrives in her own life or in the life of another, it is important for a woman to remember that the very worst thing she can do at that moment is to lose her head. To do that means to be helpless instead of helpful, to be a drag instead of an assistance. In an emergency, one should rather seem heartless than inefficient. There are always ten people ready to cry or faint or shed tears over the sufferer where there is one who stands coolly by and sees the way to help him. Affection and sympathy are often best proved by ignoring them, particularly when the moment arrives that calls for action and not tears.—Harper's Bazar.

Women Fellows.

The Royal Geographical Society has decided to admit women as Fellows. For many years the society has accepted papers from women, and on two occasions has singled them out for special honor, as when in in 1860 Lady Franklin received the gold medal in commemoration of her husband's discoveries, and when in 1869—a case more to the point—Mary Somerville received the Patron's medal for her publication furthering geographical science. The *Manchester Guardian* for July 7th has the following excellent comment on the decision:—"Papers by lady travelers have frequently been read before the society, and it has for some time been felt to be an anomaly that travelers of the standing, say, of Mrs. Bishop (Miss Isabella Bird) should be excluded from the ranks of a society for which they have done so much good."

While endorsing all this it must be admitted, says *Natural Science*, that there is the strongest objection to the admission of women to scientific meetings as casual visitors; it would probably be advisable to allow only the lady Fellows to introduce ladies, as meetings of a society held for scientific business are very different from Royal Institution lectures.

We do not remember that any society has refused to accept a paper from a woman because she has the misfortune to be a woman, but while accepting her work, most societies refuse to allow her to be present to hear it read. The Zoological Society's principle and practice on the subject are inconsistent: the former admits women as Fellows, "with the same privileges, and under the same regulations in all respects as gentlemen," but while the rules admit women the doorkeeper excludes them from the meetings! The Geologists' Association still maintains its lead in this matter, for it has this year elected a woman whose work ranks high, a vice-president. The Geological Society, however, still refuses women the Fellowship, though it is reported by *Research* (vol. i., 1889, p. 216) that when the subject was last discussed, the reform was only lost by four votes; and, but for the over-confident zeal of the women's advocates, who refused any compromise on the lines suggested above, it would, doubtless, have been carried.

How She Managed It.

A young couple in a Lancashire village had been courting for several years. The young man one day said to the young woman, "Sal, I canna marry thee."

"How's that?" said she.

"I've changed my mind," said he.

"Well, I'll tell you what we'll do," said she. "If folk know that it's thee as has given me up, I shanna be able to get another chap, but if they think I have given thee up, then I can easy get another chap. So we'll have the banns published, and when the wedding day comes the parson will say to thee: 'Wilt thou have this woman to be thy wedded wife?' and thou must say, 'I will'; and when he says to me, 'Wilt thou have this man to be thy wedded hasband,' I shall say, 'I winna.'"

The day came, and when the minister said "Wilt thou have this woman to be thy wedded wife?" the man answered, "I will."

Then the parson said to the woman, "Wilt thou have this man to be thy wedded husband?" and she said, "I will."

"Why," said the young man, furiously, "you said you would say, 'I winna.'"

"I know that," said the young woman, but I've changed my mind since."—Wade's Fibre and Fabric.

Young Folks' Column.

A Little Heroine.

Written for the Rural Press by Caroline E. Sanders.

Florence Montfort was a happy girl when it was decided that she should visit her Uncle Robert, who lived on a farm out in Kansas. Having spent all her life in a city, she looked forward to this as to a new kind of an existence, and so it really was, and she was not disappointed in thoroughly enjoying its novelty.

She liked to enter into all that was going on, especially, at first, to get up early in the mornings and go out in the barnyard to watch them milk the cows, and soon begged to be allowed to learn to do so herself; so Susan, the girl who attended to that business, gave her permission to try to milk gentle old Sukey.

"But she has a dreadful way of moving around, Miss Floy, so you must watch her," said Susan. Florence agreed to do so, and was getting on famously with her pail nearly half filled when Sukey took a notion to change her position. The new milkmaid was off her guard, and in attempting to snatch the pail, lost her balance from the stool she was sitting on and the next minute found herself with the pail and stool on the ground in a pool of new milk.

"So well splashed," said her cousin Rob, "you couldn't tell which was which."

Her cousins who had been watching her set up a shout of laughter, in which Florence was ready to join as soon as she could realize her ridiculous position.

The day after her arrival on the farm, Rob, who was the oldest boy and about her own age—which was thirteen—said to Louis, his brother, two years younger:

"I say, Lou, what a pity she isn't a boy! We might have some fun with her, but I don't see how we are going to get along with a girl, and dressed up in good clothes all the time, too!"

Only a few days later Louis expressed himself in equally confidential terms.

"I cannot see what's the matter with you, Rob. I think she is just as good as any boy, and a good deal nicer."

"O, of course she is. Since we have got acquainted, she will do very well, for she can tell the best kind of stories," was the reply, with an air of superiority.

Florence had kept up the character of "Princess Scheherazade of the Thousand and One Nights," which she bore at home, and that charm, united to her willingness to join in all that went on—work or play—soon won her cousins' hearts. She frequently met with such mishaps as she did when learning to milk, such as being chased by the old gobbler out of the barnyard when she went out to feed the chickens one cool morning with a red shawl around her, and another time slipping off the pony into a mudpuddle when she was riding on a man's saddle. But though the sweetness of her disposition was shown in all these little things, it was an occurrence which happened some weeks later which came near having a terrible and tragical ending, only averted by her bravery and self-sacrifice, that proved her possessing the noble traits of a true heroine.

It was a pleasant, bright, starlight Sunday evening when uncle Robert came in saying briskly:

"Well, the omnibus is waiting—room for a few more. Who is going to church this evening?"

The omnibus was really a nice spring wagon, and the drive to the village was only a couple of miles over a good, smooth road, yet no one answered but Aunt Charlotte.

"I knew I should be crowded, yet there is still room for one or two more, so you might as well get your hats, boys," continued uncle Robert, with a sly twinkle in his eyes.

"I would just as lief let Louis and Floy go, as I went last Sunday evening", replied Rob.

"O no, Rob," said Louis, "you may have my seat and I will stay at home and take care of Bertie."

To which Bertie spoke for himself: "No, cousin Floy is going to stay with me; she promised me she would, and tell me a story about how the prairie caught fire and nearly burned up some children, if I wouldn't tell the boys she got scared at a cow and fell down in the mud."

"O Bertie! and you said you would not."

"O cousin Floy, I didn't mean to, indeed I didn't; it just told itself," exclaimed the child, bursting into tears, as he realized what he had done.

The boys shouted with laughter at Florence's expense, in which the grown people could not help joining. Bertie's tears were dried with a kiss of forgiveness from Florence, and then his papa went on making his arrangements for church.

"You boys are very kind to each other," said he; "your self-sacrificing spirit is certainly commendable, but I think you may both come with us. As Florence went to church this morning she perhaps prefers staying at home to-night. Bertie will be company for her, and Susan and Jerry are both here for protection."

The fact was the boys knew that the sermon would be long and that they would get sleepy, but they were too well accustomed to yielding obedience to their father's wishes, even when he joked with them, to make any further reply.

As soon as they were fairly off, Florence seated herself for the business of entertaining her little cousin, when Susan's voice was heard from the kitchen: "O please, Miss Floy, wait just a few minutes till I finish up my dishes, I want to hear it all so bad."

"Yes, we'll wait for you, Susie, but you'll have to hurry up," answered Bertie, as he arranged himself in a comfortable position for listening, with his curly head down in the middle of the old-fashioned settee and his feet over the arm.

Susan did her best to "hurry up," but church was probably more than half out before Florence was fairly started in her story. It was something she had read in a book, but told in her own language. Her audience was small, but so deeply attentive she spared no pains to please, and it was in vivid language, though suited to the comprehension of her listeners, that she portrayed the hard and lonely life of a settler and his family in the heart of a prairie, where he had at last succeeded in getting a comfortable home built and some of the conveniences of living around him, when one day they discovered that the prairie was on fire. There was no way to escape, for should they attempt to flee the fire could travel faster than they. It was at the end of a long, dry summer, so they were surrounded with combustible material. Their only hope was to clear a circle around the house; then O how they worked, to the very smallest child, and it was still burning, burning; and then how they stopped in despair, and it was still burning, burning.

"Miss Floy," interrupted Susan from her seat on the doorstep, "every time you say 'burning, burning,' it seems to me I smell something burning."

Florence was a little startled and got up and walked to the open door. As she did so she saw distinctly a light shining through the crevices of a small, two-story building across the yard which they called the "toolhouse."

"Could Jerry have taken a candle into the toolhouse?" asked Florence, as she knew this was contrary to her uncle's orders.

"O no, Miss; Jerry has gone to a neighbor's," was Susan's reply.

"Then get me the key, quick, something is wrong," she said in a breathless tone as she started to run toward the building.

Even before the door was opened she saw that it was on fire inside. It was too far from the house or barn to injure them unless the wind was blowing, but they pumped, carried water and were doing their best to subdue the flames, which were rapidly getting ahead of them as Jerry came running across the lawn screaming something in a voice that was hoarse from the effort made to make them hear.

Florence stopped for an instant, saying: "What is it you are saying, Jerry?"

"The powder, Miss, the powder! Run for your lives; there's enough to blow up half the farm!"

For one moment she felt as if her blood was turning to ice. She remembered instantly the tin can of powder and just where it stood at the top of the ladder by which you reached the second story of the building. The thought of her uncle, whom she loved so dearly, how long and how hard he had toiled for this comfortable home for himself and family that in a few moments would be in ruins. Then she thought of her own dear parents, her loved home and her darling brother Tom.

"Yes, Tom would do it," she said to herself, "he would not hesitate, and with God's help I'll try," and drawing her skirts tightly around her, she darted across the intervening space and into the door, apparently throwing herself into a sea of flames.

Both Jerry and Susan rushed after her to drag her back as they saw her running toward the building, and reached the door just in time to see her almost flying up the ladder, and then to see the flames had reached the foot, rendering her return impossible. Seizing Bertie in his arms, Jerry ran at the top of his speed across the lawn and out of the gate, meeting a vehicle coming in at a furious gallop. Its inmates were too bent upon reaching the burning house to notice his frantic efforts to stop them.

Uncle Robert, too, remembered the powder, and from the instant they had noticed the fire until they reached the spot his thoughts were divided between heaping bitter reproaches upon himself for not having been more prudent and in supplications to the Almighty to avert the dreadful catastrophe which was threatened. Harder to bear than aught else appeared the thought of injury to his loved niece, for whom he had begged so hard to have with them this summer to fill the place of an only daughter who had died. Almost as if in answer to his prayer, the first object his eyes rested upon as he sprang from the wagon was Florence standing upon the limb of a tree that extended to the window of the burning house.

It bent and swayed beneath the little form, though she lightened her weight by clasping one arm around the bough above her, but in the other she held tightly clasped the can of powder.

"Catch it, Uncle Robert," she cried, as he came under the tree, "catch it, and then I can get down easily.

Uncle Robert did not afterward often speak of the fire, or of anything relating to it, but when he told Florence's father about it, some years later, he said: "Never, if I live to be a hundred years old, can the picture be dim in my memory of how I saw Floy that night, standing out as it did in the bright light from the flames. On that slim bough she looked as though floating in the air, and I felt that she had indeed been an angel in our household."

"How did you happen to think you could step out on that limb, Floy?" asked Louis.

"I did not think of it. I only thought I might be able to throw the powder out to Jerry, or beyond the reach of harm."

"And then, just think, you would have got burned up like those poor people on the prairie," said Bertie.

"Why, I never said they got burned up, Bertie; the good Lord was just as kind to them as he was to us, and they were saved by using the very thing that might have destroyed us, for it was by strewing powder around that they destroyed the dry grass in a circle about their house and saved it and themselves.

"Johnny," said his mother, "if you don't quit smoking cigarettes you won't grow a bit."

"Don't care if I don't," responded Johnny, sullenly.

"And, of course," continued the good woman, "if you don't get any bigger you will still have to wear clothes made from your father's old ones."

"I guess I'll quit, ma."

It's singular that the man who can't sleep nights in a bed, with every window up and no superfluous attire, can drop into a chair after dinner in a back office, where the temperature is 105° and where flies do battle, and can sleep so sound that he can't see the man with the bill for pew rent or hear the jingle of the telephone.

Tom (of Pittsburg)—Did you see the aurora borealis while you were East?

Laura (of Oshkosh)—No. You know there are very few theatres open at this season of the year.

ROYAL

BAKING POWDER

Absolutely Pure.

A cream of tartar baking powder Highest of all in leavening strength.—*Latest U. S. Government Food Report.*

PATRONS OF HUSBANDRY.

The Secretary's Column.

By A. T. Dewey, Secretary State Grange of California.

PESCADERO GRANGE did not meet in July because the hall we meet in was being enlarged and improved. It is completed and furnished nicely. We held our regular meeting in it the first Saturday in August, and are pleased with the change. Have a class of two on the way and expect more applications soon. It is a very busy time with us just now, getting in hay and grain to thrash.—I. C. Steele.

WATSONVILLE.—We hear from a tried and true soldier of the cause that a class of seven is to receive the 3rd and 4th degrees at the next meeting of Watsonville Grange.

INFLUENCE OF THE GRANGE.

Hiram Hawkins, Master of the Alabama State Grange, gave the following paragraphs in his late annual address:

I see some before me now, who, ten years ago, and before they joined the Grange, were living in log cabins and running a one-mule farm. Under the teachings of the Grange and its cooperative advantages, they have added to their acres, widened their fields, adorned their homes and now enjoy the comforts of two-story frame dwellings, painted, and ornamented with orchards, fruits and flowers; with lovely children, who are being educated as they grow up, presenting a happy family, who sing the beautiful songs of the Grange and thank God for its blessings to them and to their community. If one family in a community, one community in the county, could be thus blessed by the Grange, what a blessing it would be if its overshadowing influences should hover over every household in the land! There are hundreds of farmers whose examples are living attestations of the truth of what I say.

STATE GRANGE ACCOMMODATIONS.

We learn that an audience-room in the new Unitarian Church at San Jose has been secured for holding the State Grange meetings. The Pomona Feast will be given in Turn Verein hall. Reduced rates have been secured for hotel and boarding accommodations. Worthy Master E. W. Davis, Past Master Webster and the Secretary of the State Grange, and their families, are among those who have engaged rooms at the St. James Hotel, opposite St. James Park. This hotel is conveniently located to the place of meeting and has 225 rooms, single and in suits.

Brother Cyrus Jones has been appointed a committee to assist visitors in securing good and satisfactory accommodations. San Jose Grange is evidently wide-awake in advance preparations for the entertainment of members and insuring a pleasant and profitable meeting.

GRANGE COOPERATION.

Two Rock Grange has had prepared a circular showing the benefits reaped by that Grange in its cooperative efforts during the part year, which will be quite interesting to other Patrons. It has also passed resolutions which will be submitted in the circular for the consideration of each Grange, with the hope that efforts will be made for more extensive and profitable cooperation under the trade-card and other plans. Let the matter be well considered in both subordinate and the State Grange. We hope other Granges will be well prepared to report, upon this and other subjects which interest them most, during the coming season. Two Rock Grange is the most forward in the State in its cooperative action, and it will be decidedly interesting for other Granges to learn about their successful experience.

Circulars will soon be sent to each subordinate Grange with blanks for making out the annual statistical report by the Secretary. Every Patron should attend Grange between now and the first of October as important matters will continually be brought up for consideration before the coming State Grange meeting.

ANOTHER GRANGE BURNED OUT.—Wm. Taylor, Secretary, writes from Kibesillah, August 16th, that the place of meeting of the Grange was recently destroyed by fire, together with the charter and some of the other articles. The Grange has now no place of meeting except at some private house, and there is no member's house well situated for that purpose. The Grange is thus discouraged and may not resume meetings. Kibesillah has always had some warm-hearted, zealous Patrons to advocate its cause and no doubt has done much good during its existence. We hope it may again be restored to active usefulness.

WILLIAMS' GROVE PICNIC.—We have received from General Manager R. H. Thomas a handsomely printed invitation to attend the 19th Annual Interstate Exhibition Picnic at Williams' Grove, Pa., from August 29th to Sept. 3d. We have no doubt that this will be, like former meetings at the Grove, the largest gathering of the year of farmers and others interested in Grange and agricultural matters.

BY request of State Lecturer Huffman, a proposed amendment of the Constitution of the State Grange will be submitted, relating to the forfeiture of membership fees paid by applicants who fail to present themselves for initiation.

HONORED DEAD.—Among the honorary members of the Grange who have died during the past year are Bro. T. T. Hooper, of Montezuma; Mrs. P. Peterson, of Antelope; Mrs. A. J. Woods, of Tulare; Mrs. Mary Alling, of Stockton; and Mrs. J. Chester of Eden Grange. Bro. R. Davenport, for many years the venerable Chaplain of Sacramento Grange, died at the advanced age of over 90 years. If any readers are aware of the death of any other member of the State Grange since last session, they are kindly requested to inform this office.

WORTHY MASTER DAVIS has the preparation of his annual address well under way, and we are promised a copy for printing before the 5th of September. Bro. Davis is anxious that all officers of the State Grange should have their reports well and promptly prepared.

STATE GRANGE EXCURSION RATES.

Arrangements have been made with the Southern Pacific Company, over all its lines, to give the same reduced rates as granted at the late sessions of the State Grange. Members and visiting Patrons attending the session will, on going, pay full, unlimited rates, taking a receipt for the same and be furnished tickets on returning at one-third price, making a two-thirds rate for the round trip. Members can go at any time, taking a receipt for their fare and obtain the reduction, as above stated, on returning.

WRITE out some views, or questions, important to be discussed at the State Grange.

GRANGE BLESSINGS. — The history of farmers' organizations and their objects and aims, both new and old, when viewed in the light of what has been accomplished, teaches conclusively that the farmers of this country need the Grange and that the whole class are under lasting obligations to that organization for many of their present blessings and privileges. And it is certain that the Grange has done more to elevate the farmer and his calling than all other forces combined. In view of these facts, and as a debt of gratitude, we should make an extra effort to build up the Order. The Grange is a manly, conservative institution and will not interfere with your politics or religion.

DETERMINE FOR YOURSELF.—A writer gives the following advice, which may be safely followed just now: "Read, reflect and act, regardless of external conditions and the political environments which characterize your political status, and you need not forget there is a reasonable amount of personal independence, in this respect, which each one may adjust to suit himself We do not undertake to say exactly what you should do as to political relations and partisan affiliation; that you can determine for yourself. But we want to set all 'the facts and circumstances,' as the lawyers say, before you, and then we will trust to your own good sense, intelligence and appreciation for whatever kind of action you may choose to adopt. As yet, you may not be prepared, but anon, things will become more fully developed, and when the crucial hour comes—when all parties and platforms come to the front and distinctly declare the principles and policies upon which they will go before the people—then you may be prepared to define your exact position and to range yourself with whatever element, or party, corresponds the nearest to your own deliberate beliefs and sense of right. In the meantime, let the educational process go on. Study the issues that challenge attention without fear or favor. Accept the truth as you find it, and do not be turned aside by any manner of assumption, pretense, sophistry or dogma. Do this, and you may rest assured you will come out right."

Tests for Water.

When you wish to ascertain whether water is hard or soft take a clean tube, pour about an inch of soap solution into it, then add a few drops of water, which, if hard, will turn it milky or curdy.

If you wish to see if the water is acid or alkaline, fill a tube half full of water and dip a piece of red litimus paper into it; if the paper does not turn blue it is not alkaline. Now, dip a piece of blue litimus paper in, and if the paper does not turn red the water is not acid.

If you are looking for carbonic acid, pour into the tube about an inch of water and the same quantity of lime water; if there is carbonic acid the water becomes milky, and on adding a little hydrochloric acid will become clear again.

To see if sulphate of lime, which is known as gypsum, is present, fill a test tube with about 1½ inches of water, and a little chloride of barium; if a white precipitate is formed which will not dissolve when you add a little nitric acid, the water contains gypsum.

A test for magnesia is made as follows: Fill a test tube one-third full with the water, bring it to a boil over a spirit lamp, then add a very little carbonate of ammonia and the same amount of phosphate of soda; set it aside for some moments, and if magnesia is present it will form a white precipitate.

If the test tube is one-fourth full of water, and two drops of cochineal is added, and the water turns blue instead of pink, it will denote the presence of lead.

Copper will be shown by adding a few drops of chloride of ammonium to some water in which have been placed a few filings of soft iron. If it turns blue it is an evidence of copper. Adding one drop of ferro-cyanide of potassium to a little water in a test tube will color it blue if iron is present.

A large number of other tests, of course, are made in a thorough analysis, but these are the ones which will most interest the ordinary engineer, and can be made with the least trouble or expense.—Textile World.

The Gospel of Good Health.

When the day is over, the shadows are falling and you seek your home, how do you greet the table? Do you lean back in weary exhaustion and press your hand over and over your head? Does the music of laughter jar upon your overstrained nerves, and slight noises cause you to start in fretful impatience?

If so, you are a brain-tired man, and you need physical culture to give vigor and tone to that part of your system which is so all-important as to either make or mar you. Take plenty of exercise.

The only cure for insomnia, that deadly foe of health and beauty, is physical culture. Ask Paddy the stonemason if he is troubled with a sleepless couch after running up a 40-foot ladder for ten hours, and he will stare in astonishment at the inquiry. Then, if so, imitate Paddy and walk four miles a day, or eight, if need be, until sleep will literally haunt your pillow and refuse to be driven away.

Or, on the other hand, is your manly form becoming suspiciously stout, and you yourself plethoric, short of breath—a sort of "Pickwickian" resemblance in your face and figure? Again we emphasize "physical culture" as a certain preventive against unnecessary burdens of flesh.

Should you be called upon by some emergency to endure an unusual strain, whether of body or mind, this attention to your physical needs will then prove itself an ample compensation for any little trouble or fatigue it may have entailed upon you.

Yes, physical culture is closely connected with good health, good morals and longevity. It is the best improvement of our leisure, if we are following sedentary occupations.

At any rate, William Cullen Bryant practiced it until he was past 80. Gladstone today, takes his never-failing bath and sallies out to fell trees. John Ericsson, though working 15 hours a day, walked New York streets from ten o'clock P. M. until midnight for exercise.

And since God has given us bodies which demand development, lungs which cannot live without oxygen, and minds connected with both of them by subtle and manifold ties, it is our plain duty to take the necessary steps to apply these needs of our well-being.—New York Ledger.

AN individual who aspires to the particular seat in the House of Representatives which belongs to the Bloody Seventh was talking to a crowd of voters in a neighboring village. One of the party said to him:

"Colonel, I understand you are projecting for a seat in Congress?"

The Colonel nodded.

"Well, we would like to know how you stand on the Mills bill and the McKinley bill?"

"Wall," said the Colonel, "I ain't thought much about it, but I am inclined to think the Mills bill ought to be paid first, as it is the oldest of the two.

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INFORMATION FOR SETTLERS!

The members of the Kern County Land Company have a national reputation for wealth, business and financial ability. These facts set the matter of reliability at rest. The company's capital stock is $10,000,000.

They have 400,000 acres of arable, irrigable lands upon which the sun shines almost constantly; and their enormous irrigation system renders them independent of the annual rainfall.

A clear title; rotation, variety and certainty of crops; easy terms; availability to persons in moderate circumstances; ground ready for the plow—no stones nor thistles; good society; schools; churches, etc., are a few notable attractions of this region of country.

Kern is the largest county in the San Joaquin Valley. It has the finest climate for curing and drying fruits, etc.

The 400,000-acre territory of the Kern County Land Company is the pick of the county.

Its area is 5,184,000 acres.

Has the largest irrigation system in America.

The home of the peach, French prune, pear and raisin grape.

Planting and harvesting can be carried on every month in the year.

No rocks, hills or stumps on the land.

A failure of crops is unknown on irrigated lands.

Kern county fruits take the first prize at the State Fair.

Land can be made to pay for itself in less than three years.

Grows more alfalfa than any other county in California.

The advantages of good soil and plenty of sun, which occur in the Kern Valley, would have been of little avail but for the third and all-important one of an abundance of water from never-failing sources.

Through 300 miles of main canals, and 1,100 miles of laterals, the great Kern river furnishes enough moisture to slake the thirst of the 400,000 acres already referred to.

Drought is out of the question.

The system has been constructed in the most careful and scientific manner. Some of the canals are 125 feet wide and six feet deep.

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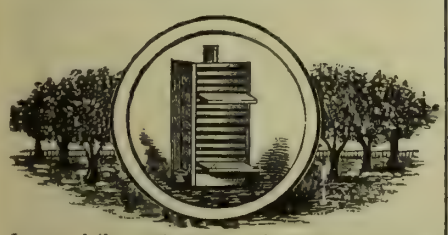

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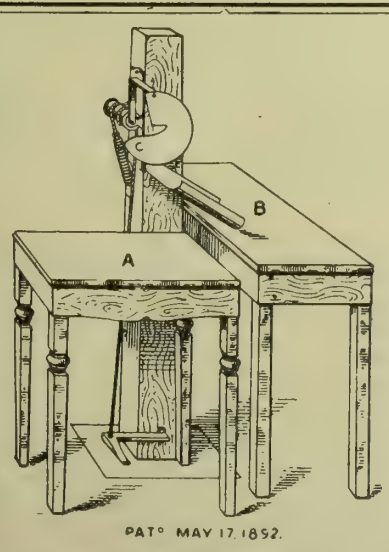

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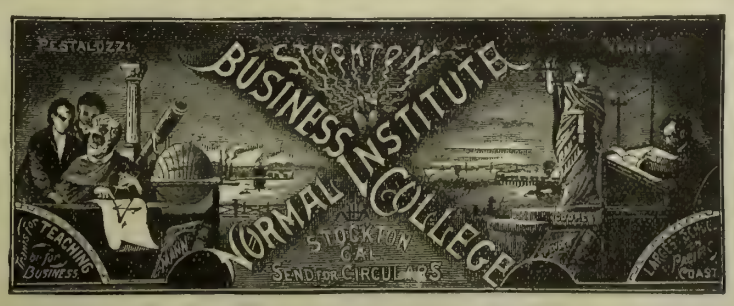

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AGRICULTURAL NOTES.

CALIFORNIA.

Butte.

HORSES FOUNDERED.—Chico *Enterprise:* Sixteen fine horses were foundered yesterday on what is known as the "river ranch" on the Rancho Chico. There was a band of horses pastured in a stubble field, the wheat of which had just been threshed. A pile of about 40 sacks of wheat were also in the field, but pannels had been put around it to protect the grain from the stock. The horses broke one of these panels down and proceeded to fill themselves up on new wheat, and immediately repaired to a creek to drink, the result of which was that 16 of them are dead and others very sick. Most of the animals belonged to Rancho Chico, and the wheat was the property of P. M. Guynn, who has the "river ranch" rented. The total loss will amount to between $1500 and $2000.

Inyo.

EAST SIDE CROPS.—Independence *Index:* A visit to the farm of Finley McIver on the East Side of Owens valley would be a revelation to many people who have lived within sight of that tract for many years, but who have never visited it or formed any reasonable idea of its possibilities and value. About 40 acres are now under cultivation, this being the third year, and the showing made establishes beyond cavil the excellence of that section for the growing of all ordinary crops. Alfalfa excels. Fruit trees and vines are thrifty and healthy. Vegetables of all kinds are of first quality and the yield enormous.

Kern.

LIVE-STOCK NOTES.—Bakersfield *Echo:* A representative of the *Echo* recently paid a brief visit to a number of points in the mountains of this county, and the information he gained gave him further proof that our upland neighbors are not the least prosperous part of our population. The cattlemen complain some of short feed and low prices—sales during the past fortnight have been for 4 and 4½ cents for range beef—but those who have sheep are more than happy, and neither the cattlemen nor the American sheepmen are depending exclusively on their live-stock interests for their income. Some grain, hay and other crops are being produced, and a pretty good market is found for it all. Five years ago sheepmen enjoyed the enmity of all the cattlemen; but since the former have become such good customers for all the surplus feed and hay, they are not held in quite such bad esteem. One man on South Fork declared that but for these people, times would be much harder than they are. He declared that he could make more money selling sheep feed than by raising cattle. More than one old-timer said that the mountains of this part of the State are better adapted to sheep-raising than cattle. It is not improbable that a contrary view is held by others. Since grain-raising has received such an impetus, the growth of well-bred hogs is on the increase. The acorns and other mast will fatten them some years, but not a few farmers are putting their hogs on grain. S. S. Hill of Linn's valley recently sold a bunch of 15-months-old hogs for something over $7 per head.

FARM NOTES.—Martin Levering in Los Angeles *Express:* In company with a small outing party bound for the heavily timbered districts farther north, the writer passed through Tehachapi valley, and, wherever inquiry was made, the ranchers stated that the hay and grain crops of this valley were fully up to the standard, both in quality and quantity. In Bright's, Cummings' and Bear valleys, the same satisfactory conditions were found to exist. Combined harvesting machines, requiring from 24 to 30 horses and five men to operate them, are used almost exclusively, in preference to steam threshers, and turn out from 200 to 250 sacks per day. Much dissatisfaction exists over the low price of wheat and barley, and quite a number of the largest ranchers intend storing their crops in anticipation of better prices a few months hence. Hay, however, brings a very fair price, several hundred tons being sold at Tehachapi last week for shipment at $12 per ton. In the great San Joaquin valley harvesting is fairly over, and the valley looks brown and bare. Many of the ranchers are growing rich raising grain. One man, who owns a 2500-acre ranch, put out $10,000 at interest last year, which was the net proceeds of last season's crop. He is but one of many. Good grain land may be had in any amount for from $15 to $25 per acre. Although Kern county is sparsely settled in most parts, it is rapidly filling up with an industrious and desirable class of people. All the tillable government land has been taken up, but a great deal of timber land remains. In the northern part of the county several irrigation districts have been formed, and will bring water from the Kern river and other sources. In this way it is intended to reclaim thousands of acres of at present comparatively worthless land.

Mendocino.

THE HOP CROP.—Ukiah *Dispatch and Democrat:* The condition of the hop crop in Ukiah valley has materially improved of late, and the shortage will not be as great as was anticipated. In some of the yards the yield will be equal to last year. Picking will commence about September 1st. There is no contracting being done, the growers feeling confident that prices will improve as the season advances.

Monterey.

SAN LUCAS GRAIN CROP.—Salinas City *Democrat:* The grain crop has now been so far harvested and warehoused that a reliable estimate of the yield can now be made. E. C. Griswold, manager of the San Lucas warehouse, computes that there have been already hauled and stored 23,000 bags, or 1600 tons, and there is yet to come in about 12,000 bags, or 800 tons, making a total of 35,000 bags, or about 2400 tons. For 1891 the yield was approximately 5000 tons, and for 1890, 8000 tons. Taking 1890 as a fair average, this year's yield is about a quarter one. The quality is a shade below standard; color slightly darker; pods not well-rounded out and kernels inclined to be starchy; grains heavier than usual. The grain is yet held almost entirely by the producers, but few small lots having been sold. Besides this year's crop the warehouse contains 1200 tons of old wheat, owned by Trescony, Cook, Earle and others.

Napa.

A NEW ORCHARD DISTRICT.—Napa *Register:* That portion of Napa valley lying between Oak Knoll and the city of Napa is the principal fruit-growing section of the county, and yet the industry here is still in its infancy. Some 500 acres are now planted to trees that bear well and bring profit to thrifty orchardists. A few years hence this section will undoubtedly be one vast orchard, as the soil, climate and location are splendidly adapted to fruit-growing. The shipping point is Union station. In the immediate neighborhood are several orchards in full bearing. The largest are those of S. M. Tool, W. A. and W. M. Fisher, L. M. Turner and Mr. Goldstein.

Nevada.

FIRST EXHIBIT OF ORANGES.—Grass Valley *Union:* There will be an exhibit of Nevada county raised oranges and lemons at the District Fair for the first time. This culture has not made much headway in this county, but it is making gradual progress.

Orange.

WALNUTS.—Santa Ana *Blade:* The walnut crop will be an important factor in the production of wealth in this county this year. Conservative estimates place the crop at about 1,500,000 pounds. The acreage of nonbearing trees is very large—nearly that of bearing orchards, and is constantly increasing. Between Garden Grove and Anaheim has been set out one of the largest walnut orchards in the State, which will come into bearing in another year. The young trees are everywhere doing well, and the walnut industry bids fair to become the leading one of Orange county.

VALUABLE ORANGES.—*Blade:* The Valencia oranges are the most profitable known. One man near Alhambra sold over $2000 worth from 130 trees this year. The Valencia, or Du Rios orange, as it is sometimes called, is a prolific bearer and comes to market in July, although they were a little late this year. Coming in at this season of the year, you see, makes them very valuable. They are worth now $4 a box wholesale, and the man who has a Valencia orange orchard has a veritable bonanza.

San Diego.

FARM NOTES.—Otay *Press:* The hay crop at Campo has been unusually large, and the corn crop promises good. Farmers in this section are now busy threshing their barley, wheat and oats, which are turning out well. The Campo flouring mills are preparing to commence operations soon, and grind out the products of home industry and save freightage.

Santa Barbara.

AMONG THE DAIRIES.—Santa Maria *Times:* A trip through the dairy region discloses the fact that the flush green-feed season is over and that dry-feed butter is all that is being shipped from this valley. To be sure, there is a number feeding green corn, but the majority is still depending on the ranges and picking, as a rule, is exceedingly short for this time of year. Nearly all dairymen have laid in an unusual supply of hay. Hay is excellent food for fattening cattle, but it is not recognized as first-class for milch cows, especially barley hay. It cannot compete with the green natural grasses of the ranges, the want of which is already telling on the output of our dairies. At J. C Bonetti's dairy they are milking about 130 cows, with an output of 90 rolls at a churning, every two days. The cows are fat, but the feed is not making the butter that it usually does at this season. Mr. Bonetti has a well equipped dairy in all departments and knows how to run it. Our representative also called at the dairy of J. B. Bonetti, who is one of the principal tenants of the Leroy estate. He sublets several hundred acres of choice bean land to Portuguese and has found it a very profitable business. He is one of the leading dairymen of our valley and has between two and three hundred cows, but at present he is milking but 140. All dry stock is taken away to pasture or otherwise disposed of and the milch cows given full benefit of the remaining feed. He is making at present six boxes of butter per week. He is well supplied with hay, and pumpkins will be in soon, so that he hopes to at least keep up the present rate throughout the season. He has 500 acres in beans, which are reported as looking the best of any beans in the valley.

Santa Clara.

A TOBACCO COLONY.—Gilroy *Advocate:* H. W. Briggs, the well-known tobacco expert of San Francisco, is very enthusiastic over the future of of California as a tobacco-growing country, and says that within a very few years the crop raised will be an important factor in the output of the world. Mr. Briggs pronounces the Culp tobacco to be as fine as any in the world, but this he says is an old story to him. As far back as 1876, the Culp tobacco received the highest award at the Philadelphia Centennial Exhibition in competition with all other American-grown tobacco. Mr. Briggs says that every county in the State can grow very fine tobacco, but at present San Felipe has advantages in addition to its climatic conditions which will make the tobacco grown there of a very superior quality. It is a fact, Mr. Briggs says, that tobacco can be grown all around here which at seven cents a pound will net the planter a very handsome profit, but that figure would be a very low one, for it would be superior to the Eastern product which yields easily 12 to 20 cents.

FRUIT SHIPMENTS.—San Jose *Mercury:* The Eastern green-fruit shipments for the week ending August 22d, from the broad-gauge freight depot, were the largest ever recorded from San Jose in one week, the amount being 1,433,230 pounds against 1,109,670 pounds for the previous week ending August 13th. The green-fruit shipments started off at a lively rate last Monday with an average of 15 cars daily. Every available fruit car was pressed into service, and had there been more cars on hand, the freight shipment in regard to green fruit would probably have touched the 2,000,000-pound mark. Fruit shipments this year are far ahead of the shipments made during the same month last year. For the corresponding week ending August 18, 1891, the green-fruit shipment amounted to 355,920 pounds; dried fruit, 155,065 pounds; week ending August 25th, green fruit, 613,395 pounds; canned fruit, 551,565 pounds. On Sept. 1, 1891, the shipment of green fruit amounted to 355,920 pounds; dried fruit 115,065 pounds. The shipments of canned, dried and green fruit this year are noticed to be far in excess of the consignments made last year. While total overland shipments last week were 2,128,920 pounds, the shipments next week will probably exceed them considerably. For the corresponding week last year 1,467,650 pounds went forward. Over 127,000 pounds of this year's crop of dried apricots went forward, and the canned-goods shipment amounted to 435,800 pounds, against 155,065 pounds for the corresponding week last year. On the narrow-gauge route, the local shipments amounted to 1,642,325 pounds. A large amount of fruit was transferred from this route last week for shipment overland.

Santa Cruz.

FRUIT ITEMS.—Watsonville *Pajaronian:* It is estimated that the apple crop of this valley will reach 250,000 boxes this year. It will take about 400 cars to take that amount of fruit to market. It is also estimated that the entire fruit output of the valley, including berries, for the season—say up to the opening of the berry shipments of 1893—will be over 1000 cars, and yet the fruit business is but in its infancy in this valley. Agents of San Jose packers have been plentiful in this valley for several weeks, and they have been ready to contract for prunes in large and small quantities. Even the man with a few trees has been sought out and offered inducements to let go of his fruit. For some reason the price has taken a drop during the past week, and quotations are now down to $35 per ton. Some good sales have been made as high as $40 per ton. Early in the month, agents of Los Gatos and San Jose driers were offering up to $50 per ton. This year the peach crop of the Pajaro is of a quality that would satisfy the demands of the most ardent lover of the peaches of the Sierra foothills. From the vicinity of Corralitos and Green valley carloads of choice and beautiful peaches have been shipped this season, but not all of the good stone fruit comes from that section. The other day Gus Sanborn brought in a lot of Hale's Early and Crawford peaches that for size, beauty of coloring and excellence of flavoring were equal to anything in that line from the Coralitos district. No part of the Pajaro valley has a monopoly of excellence in fruit production.

Sonoma.

DRIED GRAPES.—Sebastopol *Times:* A gentleman well-informed on the subject informs us that there is likely to be an active demand for grapes for drying. One vineyard south of San Francisco, producing 2000 tons, has been contracted for at $70 for the dried fruit, which is equal to $15 a ton for the green grapes. This price will satisfy our producers. There will be an unusually large amount of grapes dried in this county, especially in the more northerly vineyards. There is every indication that the yield will be light in the wine-making sections, and from all we can hear there is plenty of cooperage for the crop in Sonoma township, ano little or no embarrassment is felt on that account in other sections. Growers are confident of better prices for wine in the future.

FRUIT AT COZZENS.—Cor. Santa Rosa *Farmer:* The grape crop in this district will not be more than three fourths of a crop. F. F. Patronach is enlarging his winery. He intends to use nearly double the amount of grapes that he did last year, as his cellar is now empty. A San Francisco firm has been here buying dried grapes, offering $70 per ton for them. Very few, however, have been sold. Mr. Fairbanks, of Geyserville, has bought nearly all of the peaches, plums and apples raised in this valley; $20 to $30 per ton was the price paid for peaches. The prune crop is light in this section. The French prunes—what there is of them—are bursting open in some orchards and in others they do not seem to be hurt.

HOP CROP.—S. R. *Farmer:* H. Ludolph has 13 acres, which look as well as last year. He expects about the usual crop. Mr. Zweifel has 20 acres, which look as well as last year. He expects to get 100 bales. S. Purrington has 60 acres, outlook for crop nothing extra. His yield will be 400 bales. R. Denner has 20 acres, new. Yield will be 75 bales. Otis Allen, the pioneer hopgrower in the State, said he had 20 acres, as good as last year. Would yield 122 bales. E. E. Granger has 13 acres, not very good; crop short, 70 bales. P. Rafferty has 31 acres, looking well, about 130 bales. F. Hanzel, 32 acres, outlook for crop fair. Had 280 bales last year, and expects 250 this year. W. J. Hall reported 30 acres; prospect, light yield, perhaps six tons to the acre, 180 bales. Chas. Farmer, 35 acres, not as good as last year, but will probably have 220 bales. The red hops were better than the white. R. Peterson reported his crop as 75 acres near Santa Rosa, which produced 520 bales last year, and will yield 475 bales this year. He has also 75 acres on Russian river, which will yield between 600 and 700 bales. John McMinn reported 37 acres, which look better than last year. He expects 220 bales.

Tulare.

LARGE PEACHES.—Traver *Advocate:* J. A. Boyd, who owns a ranch about three miles north of Traver, has broken the record for fine fruit this season. He left at this office, this week, some of the largest peaches that ever grew. One of the lot weighed just 18¼ ounces and measured 13 inches in circumference around anyway. Seven of the peaches weighed just even seven pounds, and 12 of the lot weighed just 11 pounds, and we doubt very much if there is another section in the State that can find anything to compare with this.

Yolo.

SULPHUR-BOX.—Winters *Express:* Elias Ireland has invented a fruit-sulphuring contrivance. The trays of fruit are piled on a car which, when full, is run on a track to the sulphur-box. The door is hung on hinges from the end and is lifted by means of a rope and pulleys; a lever which has a fulcrum of six feet against six inches is then pulled down, which raises the cartrack and all on a level with a slide in the sulphur-box, the car is then run in, the lever lowered and the car run out. When the fruit has been in the sulphur fumes long enough, the car is run under the trays again and the fruit is then run on to the drying-ground for spreading. The contrivance is simple, easily applied to any box and can be handled by a boy.

Yuba.

HOP NOTES.—Wheatland *Four Corners:* Wheatland has been swarming with people of all sizes, dispositions and nationalities for the past week, anxious to pick hops. Tuesday last John Roddan commenced picking his fallen hops. His new hopper kilns work fairly well, the only defect being in the draft. This they hope to remedy in a few days. J. H. Durst started Thursday to picking. Although but one day's notice was given the public, about 200 pickers applied for boxes. Many had to be turned away to await the picking in the other yards. The hops are in a fine condition, both for the picker and grower. Special care will be given to drying by all the Bear river growers, and, with their extra kiln room, a uniform grade of hops, which cannot be excelled, will be put on the market.

OREGON.

HOP NOTES.—Eugene (Lane Co.) *Register:* The exodus from the city to the hop fields has already begun, and by another week hundreds of pickers will be at work gathering the crop in this county. Mr. J. Yarnell, one of the leading hopgrowers in the Mohawk valley, informs us that there are but few lice in his yard this year, and he has no fear of their doing any damage to the crop. He says he stripped the vines of their foliage to a height of about six feet from the ground early in the season and destroyed the leaves and sprouts picked off. In this way the lice were caught in their nesting place and destroyed. But few lice are left in the yard, and he says they do not appear to increase in numbers. He also reports a light growth of vine and does not expect to obtain more than three-fourths of an average crop.

WASHINGTON.

CROPS IN EASTERN WASHINGTON.—Colfax *Gazette:* While the grain is too far along to be damaged seriously by this week's high temperature, the berry has been more or less shrunken by the hot, dry weather. In Walla Walla, Columbia and Garfield counties, the grain was too near ripe for this to amount to much. The effect was more perceptible in the Palouse country and in the northern counties east of Kittitas. In Stevens and Spokane counties grain has matured too rapidly and harvest is in full progress, and threshing will begin the present week. In Douglas Co. heading is about done and threshing begun. About half a crop is secured, except in the western part, where a better yield is assured. In Kittitas and Yakima grain has ripened well, and is being harvested rapidly, with good results. The water supply is getting very low in many sections of the eastern counties. Pastures are becoming very short and there is no feed for stock, except in hay fields where the hay has been cut. Fruit and potatoes are doing fairly well, though there is too little moisture for the latter, and the aphis is damaging apples to some extent, especially in Spokane county.

DR. CHARLES G. DAVIS, of Chicago, one of the most promient physicians in the United States, and who has sent a large number of invalids to Eddy, New Mexico, during the past year, writes to Mr. G. O. Shields of that city:

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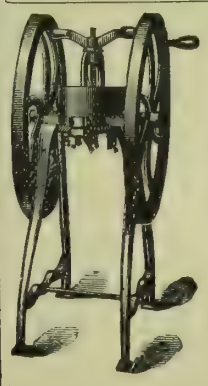

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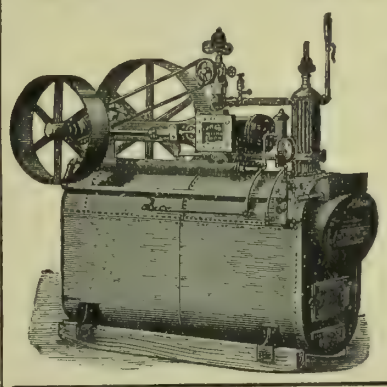

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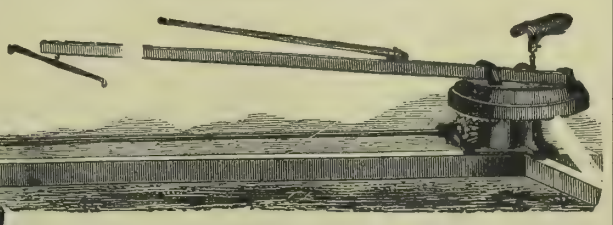

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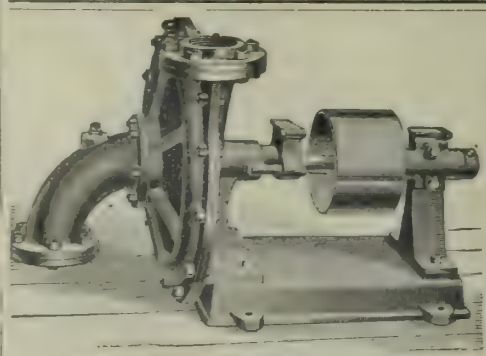

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DEEP WELL PUMPS

S. F. MARKET REPORT

Market Review.

SAN FRANCISCO, August 24, 1892.

There has been a fairly free call for funds to make advances against grain which is going into the warehouses. The continued depression in the wheat and barley market, largely through manipulation at home and abroad, causes farmers not to offer much on the market but hold for an advance later on. The continued heavy shipments of fruit to the distribution markets east of the Rocky mountains brings in large sums of money, which contribute largely in supplying the wants of those farmers who are holding grain. For the week under review, trading in grain has been quite light, particularly in wheat. The continued dropping of the markets at home and abroad makes farmers indifferent sellers, and it is claimed by those in position to take a conservative view of the general situation that they are fully justified in storing. The low price of silver allows English and Continental importers of wheat to import wheat from Russia and India at very low figures, while paying an advance in those two countries. This cannot continue much longer, for the surplus Russian and Indian wheat will go into consumption quite early; besides, the European manipulators of silver will before long probably find it to their interest to advance its market value, so as to unload all commodities and securities having a market value largely, if not entirely, based on that of silver. The ship ring in this city is unquestionably doing all in its power to send the local wheat market down and keep charters up. Their efforts, it is claimed, are largely assisted by some so-called commission firms in this city. The market for feed barley has been depressed and quotations made lower to help exporters and malsters in securing choice to gilt-edged bright gaades. The supply of off-colored is very heavy which assists the bears in forcing the market on Call to lower prices; but the supply of bright, choice to gilt-edged, is light, not only in this State but also up north. The wheat market has held firm particularly for more choice grades. Corn has been quite sensitive by reason of the light supply in this State and an undoubted shortage in the crop. At the East the corn crop will be fully 20 per cent below that harvested last year. Rye has shaded off under fair receipts and a light inquiry. Bran has come in quite heavily which caused the market to sell lower; middlings and screenings also sold lower. Roll barley has met with a strong demand, but with liberal supplies the market did not advance. The receipts of hay have been very heavy, but the bulk received was largely of the poorer grades and in consequence the more choice has had good support. Weather prophets look for an early rainy season, which, if it should prove to be correct, will have a depressing influence on the market, but at present the demand is very large and steadily enlarging owing to poor pasture. Another combination has been effected to put up the price of choice to gilt-edged butter, but whether it will prove a success remains to be seen. The supply in cold-storage is said to be the largest on record while the receipts from northern ports are very heavy, besides which it will soon be the season of year when dealers commence running on pickle butter. There is a free demand for keg butter. Eastern mail advices report strong markets, with indications for still higher prices. Cheese has held steady. At the East the market has strong support from an active home and foreign demand. Eggs appear to be working into a better position for higher prices for the more choice. The eastern markets are higher. In garden truck the market has been fairly steady. Tomatoes advanced under light receipts while summer squash sold lower under a light demand and heavier receipts. Green corn toward the close, shows a firmer tone.

Onions have held steady, while potatoes were irregular, and poor sold at lower figures. The more choice was fairly steady under a fair shipping and home demand. The bulk of the crop of Burbank seedlings on the river is said to be diseased, which is against the market for river Burbanks. It is also claimed that the Salinas Burbanks are not up to an average in quality. Poultry has held steady. There is a continued scarcity of large-sized and in good condition. The general run is poor. Live pigeons sold at around $3.50 per dozen for old and and $2.25 per dozen for young. Bullocks and mutton sheep have sold lower, while hogs have barely held their own. Honey is very scarce and wanted. The crop is short on this coast and also at the East. Hop-picking has commenced in this State, and also up north. The yield, it is claimed, will be below an average. Mail advices report that the crop will be short both at the East and in Europe. Fall wool is coming in, but the grade is said to be poor, which makes it difficult to sell. The market for spring wools was unchanged. Beans are very strong, with the supply well-cleaned up. There have been liberal sales of new-season Limas at around 3 cents for shipment to the East. Mustard seed is coming in quite freely. There is a fair shipping and home demand. The fruit market was overstocked with trashy stuff up to Saturday, but since then it has been getting into better shape for sellers. The sending of large quantities of rejected and trashy fruit to this city does far more injury than good and cannot be too severely condemned. It not only creates, as a rule, a loss to shippers, but reduces the price for good to choice fruit. There was another factor which assisted in demoralizing the market, viz., very hot weather forcing fruit to ripen so quickly that canners, driers and dealers were not able to handle it advantageously. One cannery at Oakland gave away three carloads of pears which they were not able to handle, so fast had they ripened. Dealers in this city sold largely at 20 to 40 cts. At 20 cts. a large drier at Davisville bought. Peaches suffered with pears. Choice, firm, good-keeping pears held up fairly well, as did mountain peaches, which latter sold to the trade at from 75 to 85 cents per box, while overripe and poor were hard to sell. This week considerable sun-burnt fruit came in; it is worthless. Grapes coming in from Sonoma, Napa and Yolo show the effects of the hot spell, and consequently buyers fight shy of them. Grapes from Tulare and Fresno sold well. Muscats from around Hanford sold at from $1 to $1 25 per box, while it was hard to sell consignments from many other localities. The late hot spell did considerable damage. Cables from Europe report large damage to grape crops by excessive hot weather. With a short crop at home and a short crop abroad, raisins and wine ought to do better. The market for dried fruit has held very strong, with an advance established in apricots. For raisins and prunes the market has been sluggish, but the tone was strong. Buyers appear to be fighting to get the market into shape to buy and not advance prices.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	Aug.	Sept.	Oct.	Nov.	Dec.
Thursday	6s03½d	6s03½d	6s03¾d	6s04½d	6s05½d
Friday	6s03 d	6s02¾d	6s03¼d	6s.3¾d	6s04¾d
Saturday	6s02¾d	6s 2 d	6s 2½d	6s03½d	6s03¾d
Monday	6s01½d	6s01½d	6s01¾d	6s02½	6s 3½d
Tuesday	6s02 d	6s01½d	6s01½d	6s02¾d	6s03½d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. O.	P. S.	N. D.	Market for P. S.	Weather.
Thursday	34s d	34s3d	34s d	Neglected.	Warm.
Friday	34s d	34s3d	34s d	Steadier.	Stormy
Saturday	34s d	34s d	34s d	Weaker.	Fine.
Monday	33s9d	33s d	33s9d	Weak.	Brilliant.
Tuesday	33s9d	33s9d	33s9d	Weak.	Fine.

To-day's cablegram is as follows:

LIVERPOOL, Aug. 24.—Wheat quiet but steady. California spot lots, 6s 9d: off coast, 33s 6d; just hipped, 33s 6d; nearly due, 33s 6d; cargoes off coast, very inactive; on passage, neglected and no business doing; Mark Lane wheat, turn easier; weather in England, local thunderstorms prevalent.

New York.

The following shows the closing prices of wheat for the past week:

Day.	Sept.	Oct.	Dec.
Thursday	138⅛	140⅛	148⅛
Friday	136⅛	138⅛	143
Saturday	135⅝	137⅛	142
Monday	13 ⅞	138	142⅛
Tuesday	135¼	138⅛	14 ⅛

The following are to-days' telegram:

NEW YORK, Aug. 24.—Wheat, 81½c for September, 82½c for October and 85½c for December.

CHICAGO, Aug. 24.—Wheat, 75⅞c for September and 78⅞c for December.

San Francisco.

WHEAT.

	Seller '92.	Buyer Aug.	Buyer Sept.	Buyer Oct.	Buyer Dec
Thursday, high st	....	....	137	....	140⅞
" lowest	....	....	137	....	14 ⅛
Friday, highest	135¼	....	....	....	140⅛
" lowest	134½	....	....	....	139⅛
Saturday, highest	134	133⅞	134	....	138⅞
" lowest	133¾	133¾	134	....	138⅞
Monday, highest	133¾	....	134⅛	....	138⅞
" lowest	133⅝	....	134⅛	....	138⅞
Tuesday, highest	133⅞	....	134⅛	....	*139
" lowest	133⅝	....	134⅛	....	139

*Stockton delivery.

The following are to-day's recorded sales on Call:

Wheat—Morning—Informal—Buyer December—200 tons, $1.37½; 500, $1.37¼ ₱ ctl. Regular session.—Buyer December—100 tons, $1.37¼; 1100, $1.37; 200, $1.36⅞; 1100, $1.36¾; 900, $1.36⅝. Seller 1892—800 tons $1 32 ₱ ctl. Afternoon Buyer December—200 tons, $1.36⅞; 900, $1.36⅝. Seller 1892—100 tons, $1.32; 100, $1 31⅞ ₱ ctl.

BARLEY.

	Seller '92.	Buyer Aug.	Buyer Sept.	Buyer Oct.	Buyer Dec.
Thursday, highest	92⅞	....	....	....	98⅛
" lowest	92⅝	....	....	....	98⅛
Friday, highest	91⅞	....	....	....	97¼
" lowest	91⅝	....	....	....	97
Saturday, highest	92⅝	....	....	....	96⅝
" lowest	91⅞	....	....	....	96½
Monday, highest	91⅞	....	....	....	96½
" lowest	90⅞	....	....	....	96⅛
Tuesday, highest	90⅞	....	....	93	96⅞
" lowest	90⅞	....	....	93	96¼

The following are to-day's recorded sales on Call:

Barley—Informal—Seller 1892, new—200 tons, 90½c. Regular session—Seller 1892, new—400 tons, 90c; 100, 89⅞c; 100, 89⅝c; 500, 89½c. December—100 tons, 95⅞c; 500, 95¼c; 1300, 95⅛c; 300, 95c. Buyer December—100 tons, 95½c ₱ ctl. Afternoon December 100 tons, 94⅞c; 100, 94½c; 300, 94¼c. Seller 1892, new—100 tons, 88⅞c ₱ ctl.

Markets by Telegraph.

Foreign Grain Review.

LONDON, August 22.—Mark Lane *Express*: Crops have been benefited by rain the past week, especially oats, in middle and north of England. The new wheat crop commenced selling at 32s per quarter, 8s below the first sales of 1891. Foreign wheat has dropped 1s; except Indian, which is steadier. The total supply of wheat held in Great Britain is 6,821,000 quarters, against 3 906,000 for the corresponding period of 1891. Barley, oats and beans are firm, corn 3d cheaper. To-day new and old English wheat sold at an average of 30s 11d; foreign was neglected and 6d lower. Flour declined 6d. Peas 6d lower. Beans advanced 1s. Barley strong.

Canned Fruit.

NEW YORK, August 21.—Canned fruits—The list is nominally firm. With no substitutes for Coast apricots, holders ask $1.70 from the trade.

Dried Fruit.

NEW YORK, August 21.—Peaches hold 12½c, free on board. Seven loads of 60 to 90 prunes in bags, September delivery, are quoted at 9c, free on board; that is now October's rate for boxes, but further trade for prunes is not in treaty; your growers' reports have allayed much anxiety about the previously intimated possible lack of good-sized stock. Raisins are still neglected: a few best-faced loose made $1 45, free on board, but $1.35 is the more general rate; choice layers, $1.65, most marks ranging from $1.35 to $1.50. It must be understood that northern growths will not realize the full figures; $1 20 is the most we hear for such. Loose bag raisins, 43¼c. Apricots have a fair demand at 14@14½c for straight prime spot and 15@15½c for choice. [Later telegrams received by firms in this city report a strong and active demand for dried fruits, with apricots fetching more money.—ED. RURAL PRESS.]

Fresh Fruit.

NEW YORK, August 21.—Fresh fruit sold well, but at a somewhat easier rate, as there is now some Eastern-crop competition. Sellers, however, invite consignments, as the coast quality will be above ours for some little time yet. In plums and peaches the wholesale trade has fallen off. The trouble is greatly due to the venders, who strive to obtain opening high prices after the supplies from the regular stocks. Shippers should avoid mismarking varieties.

Wool.

NEW YORK, August 21.—Activity prevails at all seaboard ports, with former prices ruling. The clip has mainly come forward and there has rarely been so fine an offering. Some consigned lots have been put aside for better limits, but manufacturers have a full sweep for the grade they want, and with the conditions of abundant supplies and ready sellers no immediate improvement in quotations is apparent. This season is regarded as showing the heaviest mill production ever known here. Some prominent mills are so busy with settled contracts that they cannot undertake to duplicate orders that are proffered for several of the clothing fabrics that have obtained popularity throughout the trade. The sales at New York were 508 000 pounds of domestic and 42,300 of foreign. Boston sold 3,043,000 pounds of domestic, including 160,000 of spring California at 15@21c, and 812,000 of foreign, including 562,000 of Australian.

Miscellaneous.

NEW YORK, August 21.—Honey—Recent arrivals are held for better prices. Lima beans—$2.10 per spot bushel is the figure generally quoted. Hops—There is new interest. Quotations are something softer with light demand, 25c being the extreme figure, with 24½c for State.

General Remarks and Statistics.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending Aug. 23, '92, were as follows:

Flour, qr. sks	165,359	Bran, sks	20,295
Wheat, ctls	412,688	Buckwheat "	..
Barley, "	19,181	Middlings "	4,352
Rye, "	2,477	Chicory, bbls	113
Oats, "	7,532	Hops, "	1
Corn, "	2,779	Wool, "	1,171
*Butter, "	831	Hay, ton	3,708
do bxs	923	Straw, "	144
do bbls	6	Wine, gals	156,490
do kegs	352	Brandy, "	3,570
do tubs	1	Raisins, bxs	324
do ½ bxs	151	Honey, cs	258
†Cheese, ctls	1,247	Peanuts, sks	....
do bxs	29	Walnuts "	28
Eggs, doz	30,434	Almonds "	....
do "Eastern	83,100	Mustard "	4380
Beans, sks	4,782	Flax "	....
Potatoes, sks	29,447	Popcorn "	....
Onions, "	3,289	Broom corn, bbls	38

*Overl'd, 420 ctls. † Overland, 716 ctls.

Exports by Sea from San Francisco from July 1 to Aug. 18

	1892-93	1891-92
Wheat, ctls	1,204,057	1,668,849
Flour, bbls	136,717	157,496
Barley, ctls	239,940	127,292

Tonnage Movement.

From reliable advices up to Aug. 24, the following summar tonnage movement is compiled:

	On the way 1892	On the way 1891.	In port 1892.	In port 1891.
San Francisco	278,259	386,882	*168,685	74,323
San Diego	20,031	25,524	7,466	.....
San Pedro	3,512	5,8 8	1,308	13,159
Oregon	49,189	48,050	29,236	
Puget Sound	34,042	22,806	.....	
Totals	385,033	489,070	206,725	87,482

*Engaged for wheat, 1892, 61,122; 1891, 66,986.

Cereals.

The Mark Lane statement of the crop abroad shows that the crop of Russia will be 280,000,000 bushels, including Poland and the Caucasus. It states that this is 64 000,000 bushels more than the trade estimated. When this report is analyzed it does not show that it is so extremely bearish as at first thought. Last year the crop of Russia, including Poland, was 181,000,000 and the crop of the Caucasus 72,000,000, making a total of 253,000,000 bushels, showing that the total crop this year is only 27 000,000 bushels more than last year. The crop of rye in Russia is about 80,000,000 bushels more than last year, when it was so very short as to prostrate all trade and cause a famine. The Russian crop of rye this year is estimated at 570,000,000 bushels. Last year it was 539,000,000 bushels, and the previous year 721,000 000, and the total in 1889 610,000,000 bushels. The entire crop of all cereals and potatoes in 1891 was given as 1,876,000,000 bushels, against 2,365,000,000 bushels in 1890. The amount of wheat on passage for the United Kingdom showed a decrease of 784,000 bushels, and the amount of corn a decrease of 44,000 bushels. On the other hand there was an increase of 978,000 bushels in the English visible, which was somewhat of a surprise, but due to large imports in the United Kingdom during the past week.

The local wheat market was firmer to-day with buyers showing more disposition to operate. The offerings are very light, and it is claimed that there will not be any material increase in the offerings as long as the present unwarrantable depression continues. The large engaged and disengaged tonnage in port is in wheatholders' favor. The carrying capacity of the tonnage in port aggregates about 275,000 tons of wheat. It is said that ships are easier. In the country, buyers pay from 1¼@2½ cents per cental above the parity of this market. By depressing the San Francisco market, exporters think they can buy more readily in the country by offering an advance.

In the local market, gilt-edged barley is scarce, but poor is in liberal supply. While quoting the market weak, buyers pay an advance on outside prices for choice to gilt-edged. It is claimed that owing to a shortage in oats and barley in the central States there will be an exceptionally good demand from the East for our more choice grades. Feed barley is weak at quotations. The consumption of roll barley is steadily increasing.

Corn has shown more strength the past week owing to light visible supplies and a fair demand.

Rye has had poor support, which caused a shading in prices under freer receipts.

The Minneapolis *Journal*, estimating the spring-wheat crop in Minnesota and the Dakotas, says:

After a careful personal inspection of the field, it places the crop for the three States at 103,000,000 bushels against 160,000,000 bushels last year. This is little below an average crop. Minnesota will produce 31,709,000 bushels, North Dakota 29,500,000 and South Dakota 43,000,000 bushels. South Dakota increases over last year, while the other two fall off, on account of heavy storm damage and late seeding in the Red River valley, where the yield is reduced one-half. C. A. Pillsbury, in an estimate, puts the yield at 110,000 000 bushels.

The requirements of Europe this year are uncertain as yet, but it is probable that they are in the neighborhood of 5,500 000 to 6,000 000 bushels per week. The crop of the United Kingdom indicates that the requirements there will be 3,250,000 per week. In France the requirements will be 1,250,000 bushels per week, making the total of 4,500,000 for the two countries. The needs outside of these two countries are indefinite, but will amount to considerable, probably 1,000,000 a week, if not 1,250,000, making a total of 5 500,000 to 6,000,000 to be shipped. The United States has 3,000,000 a week, Southwestern Europe 500 000 a week, Australasia and South America 500,000 a week, leaving 1,500,000 to 2,000 000 bushels per week to be supplied by Russia, India and the minor exporting countries.

The *Mercuriale des Halles et Marches* estimates the French wheat crop at 274,400,000 bushels, which will necessitate imports of about 67,000,000 bushels. A firm of French importers estimates that the amount of surplus to be carried over in addition to the normal reserve will be about 16,000,000 bushels.

The final official report on the Indian wheat crop states that in the Punjab the crop turned out an exceptionally poor one. In the northwest provinces, serious damage occurred to the crop, bringing it below the average. In Bengal the season was altogether unfavorable. In the central provinces and Berah the weather was decidedly unfavorable. In Bombay the result was irregular. In Guzurat the crop was fair; in Sindh indifferent. In South Deccan there was almost a famine. Taken as a whole, the crop was a poor one. The area sown showed a decrease of 2,466,000 below the average, and the outturn showed a decrease, on the average, of 650,000 tons.

Beerbohm says the result of the winter-wheat crop in Russia will be below the average, excepting in the Caucasus, where the outturn will be good. The rye and wheat harvest will be bad in an immense tract of country, embracing eight Governments, and will be various in several other Governments. In some districts, farmers do not expect to get enough grain for seed.

The stock of wheat at Odessa on August 1st was 3,440,000 bushels, against 3,200,000 bushels July 1st; Paris, 2,712,000 against 3,240,000, and Dunkirk 2,024,000 bushels, against 2,760,000 bushels.

In the local market the more choice grades of oats are scarce and command full figures, but there are liberal supplies of the poor grades, on which the market drags.

Feedstuff.

The market for ground feed has been fairly active. Both bran and middlings sold lower, but rolled barley and feed meal were steady. The market to-day was fairly steady.

Poor to fair hay continues in excessive supply with prices favoring buyers, but choice to gilt-edged has been fairly steady. The impression is gaining ground that the crop of the more choice grades of wheat-hay was light, owing to more being harvested for grain than has been the case for years. The receipts of hay are heavy, but the demand appears to be enlarging.

Dairy Produce.

The butter market is quoted firm at a slight advance for gilt-edged. It is claimed that there is an oversupply of poor to good grades, particularly in squares. To-day the market did not appear to show as much strength as it did on yesterday, yet this is always the case after an advance.

Cheese has held fairly firm for choice to gilt-edged new mild, but easy for poor to fair. The demand is fair. Considerable Eastern is arriving.

Eggs are still irregular and hard to quote satisfactorily. Strictly fresh-laid eggs from near-by points are wanted, but when it gets to good to choice they sell slowly, owing to dealers preferring choice Eastern, which sell for less money.

Fruit.

Under date of August 6th the following is reported from London: "In California canned fruits a large business has been transacted, and an advance of 1s per dozen has been established since the lowest point at Easter, all 'second' standards having lately been swept off the market. Firsts for peaches are quoted at 8s to 9s, pears 3d more at 8s 3d to 9s 3d, and apricots at 7s 6d to 8s; besides extras of the last named at 11s to 12s, with peaches at 11s 6d to 12s 6d, and pears at 12s 6d to 13s 6d per dozen tins. Canadian 'gallon' apples of the new crop have been sold to arrive at 8s per dozen.

New York mail advices just to hand report as follows: Some few Valencia raisins are selling for August steamer shipment at 15s 6d c. and f. for off-stalk, and 20s 6d for layer, and first half September shipment 14s 6d and 19s 6d. New currants for first steamer are cabled at 17s 6d for Calamata goods c. and f., but this price is above the limits of our importers; hence we learn of no important orders going out. New French prunes at 42 francs are too high for importers, though this price is not accepted here as an opening figure. Recent mail advices stated the market in France would not fairly start before the 20th inst. Extreme prices and limited offerings hold trade in Turkish and Bohemian prunes in check.

The peach crop in many places in Michigan is extremely light. The grapevines have been attacked in numerous cases by disease, and the yield of good fruit will be materially reduced. Cranberries are a fair yield in quality and quantity. Winter apples throughout the fruit region of that State are almost a total failure. The pear crop of one of the orchards of the Comings Brothers at St. Joseph was last year 2000 bushels, but this year on the same ground it will not exceed 400 bushels. Pennsylvania reports less fruit than usual. Tennessee reports grapes and peaches rotting. Kentucky, fruit of all kinds poor. Wisconsin, apples, the chief fruit crop of the State, poor. New York reports grapes doing well.

The market, under hot weather and heavy receipts of rejects and trashy stuff, went from bad to worse up to Monday, when, with not so much coming in and canners again in the market, the more choice for canning sold at a slight advance. Large quantities of overripe, and also second and third grade, fruit had to be sold at the best obtainable bids, and even then large quantities had to be dumped. At Oakland a cannery gave away three carloads of overripe pears. To-day peaches suitable for canning fetched an advance. Santa Cruz mountain peaches sold to the trade as high as $1, while the highest from any other locality was 85 cts. Valley peaches sold at 75 cts. Pears were unchanged, as were plums, prunes, berries, etc. Grapes were lower under heavier receipts. The highest paid for Muscats from Tulare and Fresno was $1. Tokays were not as plentiful. Cantaloupes, nutmegs and watermelons were weak.

The dried fruit market is very strong, but no advance is reported outside of apricots. It looks as if the bulk of dried apricots and prunes has been sold, as has considerable of new crop raisins and peaches. The market for new crop raisins is said to have a firmer tone. If the news is confirmed of injury by heat in Europe to the grape, a better market for Californian may be reasonably expected.

Vegetables.

The market for garden truck appears to be shaping more in sellers' favor. This is due to lessening receipts and more inquiry, owing to cooler weather and also to fruits doing better. To-day tomatoes and cucumbers did better, but other kinds were unchanged. Marrowfat squash sold at from ½@1c ₱ lb., according to quality. Green corn is in lighter supply.

Onions are slow at 80@40c per cental on the wharf.

The potato market was strong and fairly active today. Receipts are lighter while there is a good home and shipping demand.

Live Stock.

In bullocks and mutton sheep there has been a stronger selling pressure, owing to a growing scarcity of natural feed. The falling off in the consumption of meat, causes slaughterers not to buy freely except at concessions. Hogs have held steady.

Miscellaneous.

Poultry has held steady. To-day there was a fair inquiry, notwithstanding the arrival of a carload of Eastern, mostly hens. Choice stock is very scarce.

Colored beans are about cleaned up, but whites and Limas are in liberal supply.

Hops are inactive. Buyers are awaiting further news from the European crops. They claim that the hot weather in Germany benefited the crop.

Fall wool is coming in, but so far the quality is poor.

Honey is scarce and higher.

New crop nuts are reported firm.

General Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, Aug 24, 1892

BEANS AND PEAS.

Bayo, ctl	— @ —
Butter	2 50 @ 3 00
Pea	2 40 @ 2 65
Red	— @ —
Pink	— @ —
Small White	2 35 @ 2 50
Large White	2 20 @ —
Lima	3 00 @ 3 20
Fld Peas, blk eye	1 50 @ 1 70
Do green	1 50 @ 2 75
Do Niles	1 30 @ 1 40
Split	4 50 @ 5 00

BUTTER.

Cal. Poor to fair, ⅊	15 @ —
Do good to choice	18 @ —
Do Giltedged	24 @ 25
Do Creamery rolls	23 @ 25
Do do Giltedge	— @ 26½
Eastern	16 @ 17

CHEESE

Cal. choice cream	9 @ —
Do fair to good	7½@ —
Do gilt edged	— @ 11
Do skim	5 @ 6½
Young America	— @ 11½

EGGS.

Cal. "as is," doz.	16 @ 18
Do shaky	12½@ 14
Do ca. died	19 @ 23
Do choice	23 @ 25
Do fresh laid	26 @ 29
Do do selected	— @ 30
Eastern "as is"	15 @ 17
Do candied	18 @ 20
Do selected	22 @ 24

Outside prices for selected large eggs and inside prices for mixed sizes—small eggs and hard to sell.

FEED

Bran, ton	16 00 @17 00
Feedmeal	27 00 @30 00
Gr'd Barley	20 50 @22 00
Middlings	20 00 @21 00
Oil Cake Meal	— — @25 00
Manhattan Food ⅊ cwt.	7 50 —

HAY.

Wheat, per ton	8 00 @ —
Do choice	— — @12 50
Wheat and Oats	8 50 @11 00
Wild Oats	8 00 @11 00
Cultivated do	7 00 @10 00
Barley	5 00 @ 9 00
Alfalfa	7 00 @ 9 00
Straw, bale	40 @ 55

GRAIN. ETO

Barley, feed, ctl.	86½@ —
Do Choice	92½@ —
Do Brewing	95 @ —
Do do Choice	98½@ —
Do do Giltedge	1 00 @ —
Do Chevalier	— @ —
Do do Giltedge	— @ —
Buckwheat	— @ —
Corn, White	1 37½@ 1 42½
Yellow, large	1 30 @ 1 32½
Do small	1 35 @ 1 37½
Oats, milling	1 50 @ —
Feed, Choice	1 40 @ —
Do good	1 37½@ —
Do fair	1 30 @ —
Do Common	1 15 @ 1 25
Surprise	1 55 @ —
Black Oat	1 17½ @ 1 25
Do Oregon	— @ —
Gray	— @ —
Rye	1 17½ @ 1 22½
Wheat, milling, Gilt edged	1 42½ @ —
Do Choice	1 40 @ —
Do fair to good	1 37½@ —
Shipping, cho'oe	1 35 @ —
Do good	1 32½@ —
Do fair	1 28½@ —

Common	1 25 @ —
Sonora	1 25 @ 1 40

HOPS.

1892 Bid	18 @ 20

FLOUR.

Extra, CityMills	4 15 @ 4 40
DoCountryMills	4 35 @ 4 40
Superfine	2 60 @ 3 00

NUTS—JOBBING.

Walnuts, Cal. ⅊	6½@ —
Do Choice	8½@ —
Do paper shell	9½ @ —
Almonds, sft shl.	11 @ —
Paper shell	14 @ —
Hard Shell	6 @ 7½
Brazil,	9 @ 10
Pecans small	11 @ 13
Do large	14½@ 16
Peanuts	3½ @ 4½
Filberts	11 @ —
Hickory	7 @ 8
Chestnuts	11½@ 16

ONIONS

Silverskin	30 @ 40

POTATOES.

Early Rose, ctl.	40 @ 55
Peerless	45 @ 65
Garnet Chilies	50 @ 70
Burbank Seedlings	45 @ 65
Do do Salinas	75 @ 1 00

Extra choice sell for more money.

POULTRY.

Hens, doz	6 50 @ 7 50
Roosters, old	6 00 @ 7 50
Do young	5 50 @ 7 50
Broilers, small	2 50 @ 3 50
Do large	3 50 @ 4 50
Fryers	4 50 @ 5 50
Ducks	4 00 @ 4 75
do, large	5 00 @ 5 50
do, extra large	6 00 @ —
Geese, pair	1 50 @ 2 25
Goslings	— @ —
Turkeys, Gobl'r.	18 @ 19
Turkeys, Hens	16 @ 18

All kinds of Poultry if poor or small, sell at less than quoted; if large and in good condition, they sell for more than quoted.

Manhattan Egg Food ⅊ 100-lb cabinet	8 00

PROVISIONS.

Cal. Bacon, he'vy, ⅊	11 @ 11½
Medium	12 @ 13
Light	13½ @ 14
Lard	8 @ 11
Cal. Sm'k'd Beef	11½@ —
Hams, Cal salt'd	12½ @ 14
do Eastern	15 @ 16

SEEDS.

Alfalfa	— @ —
Clover, Red	14 @ 15
White	20 @ —
Flaxseed	2 00 @ 2 25
Hemp	3½@ 4
Mustard, yellow	3½ @ 4
do Brown	2½@ —

WOOL.

SPRING, 1892.

Humb't&Men'cino	17 @ 21
Sac'to valley	16 @ —
S Joaquin valley	11 @ 16
Cala'v & F'th'l.	16 @ 21
Oregon Eastern.	12½@ 19
do valley	18 @ 23
So'n Coast, def.	10 @ 12
Nevada (State).	15 @ 19

HONEY.—1892 CROP.

WhiteComb, 2-lb	9½@ 12½
do do 1-lb frame	11½ @ 14½
White extract'd	7 @ —
Amber do	6½ @ 7
Beeswax, lb	25 @ 28

Dried Fruits.

The quotations given below are for average prices received by commission merchants for consignments by growers. Something very fancy fetches an advance on the highest quotations while poor sells slightly below the lowest quotations. Prices, unless otherwise specified, are for fruit in sacks; add for 50-lb. boxes ½c per lb., add for 25-lb boxes, ½c to 1c per lb

APPLES—1892.

Sun-dried, ¼'s, com'on	2½@ 3½
Do do prime	3½@ 4
Do do choice	4 @ 4½
Do sliced, common	3½@ 4
Do do prime	4 @ 4½
Do do choice	4½@ 5½
Evap. bleached, ring. 50-lb boxes	6½@ 7

APRICOTS—1892.

Sun-dried, unbl. com.	4 @ 5
Do do prime	6 @ 7
Do do choice	8 @ 9
Do bleached, prime	11@—
Do do choice	12@—
Do do fancy	13@—
Evap. choice, in boxes	13½@ —
Do fancy, do	14 @ —

FIGS—1892.

Sun-dried, black	4½@ 5
Do white	— @—
Do do washed	— @
Do do fancy	— @—
Do do pressed	— @—
Smyrna boxes	— @—
Do sacks	— @—

GRAPES—1892.

Sun-dried, stemless	3½@
Do unstemmed	1½ @ 2

NECTARINES—1892.

Red, sun-dried	8 @ 9
Do Evap., in boxes	— @—
White, sun-dried	9½ @11
Do evaporated	— @—

PEACHES—1892.

Sun-dried, unpeeled, common, bleached	8 @—
Do do prime, do	10 @—
Do do choice, do	11½@—
Do do fancy	12 @—
Evap, unpe'l'd, choice	12½@—
Do do fancy	13 @—
Sun-dr, pl'd, prime, bl.	— @—
Do do choice	— @—
Do do fancy	— @—
Evap, peeled, in boxes, choice	— @17½
Do do fancy	— @20

PEARS 1892.

Sun-dried, quarters	— @ 3
Do sliced	4 @ 5
Evap, sliced, in boxes	7 @ 8
Do ring do	9 @10

PLUMS 1892.

Pitted, sun-dried	7 @ 8
Do evap. boxes, choice	— @—
Do do do fancy	— @—
Unpitted	— @—

PRUNES—1892.

Cal. French, ungraded	7½@ 8
Do graded, 60 to 100	8½@ 9
Do do 40 to 60	11 @12

Fancy sell for more money.

RAISINS—1892.

London Layers, cluster, ⅊ bx	1 90 @2 00
Do choicest do	1 60 @1 70
Do prime, ⅊ bx	1 40 @1 45
Loose Muscatels, common, ⅊ bx	— @ —
Do choice, do	1 25 @1 30
Do fancy, do	— @ —
Unstem'ed Muscatels, in sacks, ⅊ lb	4 @ 5½
Stemmed do do	— @ —
Seedless do do	— @ —
Do do ⅊ 20-lb bx	— @ —
Sultanas, unbl, bxs	— @
Do bleached, in bxs	— @ —

Halves, quarters and eighths 25, 50 and 75 cents higher respectively than whole boxes

Twine and Baling Rope.

BALE ROPE.

Sisal, 3 yarns	9
Do, 2 yarns, light	9½
Duplex, 3 yarns	9
Manila, 3 yarns, heavy	10½
Pure Manila, 3 and 4 yarns	12
Do, 2 yarns, light	12½

TWINE.

Pure Manila Hop, in balls, tarred	11½
Do, Grape-Vine, in balls or coils	12
Do, Spinning	15
Duplex Hop, in balls, tar'd	9½
Do, Grape-Vine, in balls or coils	10½

Live Stock.

BEEF.

Stall fed	5½@—
Grass fed, extra	5½ @—
First quality	4½ @—
Second quality	4 @—
Third quality	3½ @—
Bulls and thin Cows	2 @—

VEAL.

Range, heavy	4½@—
Do light	5½ @—
Dairy	5 @—

MUTTON.

Wethers	7 @—
Ewes	6½@—
Do Spring	8 @—

HOGS.

Light, ⅊ lb, cents	5½ @—
Medium	5½ @—
Heavy	5 @—
Soft	4½@ —
Feeders	3½ @—
Stock Hogs	3½@—

Grain and Wool Bags.

Calcutta, spot	5½@ 5¾
Wool Bags	36 @ 38

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, Aug. 24, 1892

Limes, Mex	5 00 @ 7 00
Do Cal	— @ —
Lemons, box	1 00 @ —
Do Sicily choice	6 50 @ 8 00
Strawberries, per chest— Longworth	6 00 @ 8 00
Sharpless	3 50 @ 7 00
Raspberries, ch.	6 00 @ 9 00
Peaches, box	30 @ 75
Do Mountain	75 @ 1 00
Blkberries ⅊ ch	2 50 @ 4 00
Figs, blk box	50 @ 85
Apples	50 @ 1 00
Do Gravenstein	75 @ 1 25
Crabapples	50 @ 75
Canteloupes, pr crate	25 @ 75
Melons, pr 100	6 00 @11 00
Nutmegs, ⅊ box	10 @ 35
Grapes, pr box— Do White	40 @ 60
Do Black	40 @ 75
Do Muscats	45 @ 1 00
Do Tokays	65 @ 1 00
Prunes, Hung'n	40 @ 50
Do German	45 @ 60
Plums, ⅊ box	25 @ 50
Pears	— @
Do Bartlett culls	25 @ 75
Do do choice	70 @ 1 10

Fruit in bulk to canners: Pears, ½ @2; Plums, white, 1½@2c; Peaches, freestone, colored, 1@1½c; clings, 2@3. Extra choice fruit for special purposes sells at an advance on outsi quotations.

Seeds, sk	— @ 75
Carrots, sk	40 @ —
Okra, dry, ⅊	15 @ —
Do green box	40 @ 65
Parsnips, ctl	— @ 1 25
Peppers, dry, lb	10 @ —
Do grn Chili, bx	20 @ 35
Do do Bells	20 @ 40
Turnips, ctl	75 @ —
Cabbage, 100 ⅊s	45 @ 55
Garlic, ⅊	@ —
Squash, Sum, bx	25 @ 35
Tomatoes,	— @ —
Do River lrg bx	35 @ 50
String Beans, sk	50 @ 75
Cucumbers, box	25 @ 40
Mushrooms	— @ —
Egg Plant, bx	40 @ 50
Green Corn, box	30 @ 50
Marfat Squash, ⅊ ton	10 00 @20 00

Wine.

Red and White Wine from bay counties, vintage of 1891, per gal	10 @ 15

Auction Sales of California Fruits.

At New York.

Aug. 17.—Five carloads: Bartlett Pears, $2.30@2.90; Yellow Free Peaches, $1.25; Mary's Choice Peaches, $1 10; White Peaches, $1.55; Foster Peaches, $1.35; Susquehanna Peaches, $1.20@1.45; Crawford Peaches, $1.20@1.35; Muir Peaches, $1 15@1 25; Centennial Peaches, $1.60; Morocco Peaches, $1.60; Orange Cling Peaches, $1.20; Yellow Egg Plums, $1.05@1.40; French Prunes, $1.10; German Prunes, $1.25; Petit Prunes, $1.35; Fontainebleau Grapes, half crates, $1.10.

Aug. 17.—Seven carloads: Bartlett Pears, $2.40@3.15; Beurre Clairgeau Pears, $1.40@1.60; Crawford Peaches, $1 10@1.90; Susquehanna Peaches, $1.25@1.75; Cling Peaches, $1.20@2; Muir Peaches, $1.10@1.25; Foster Peaches, $1 15@1.50; Bradshaw Plums, $1 10@1.55; Egg Plums; $1@1.45; Japanese Plums, $1@2 35; Columbia Plums, $1.10@1.85; German Prunes, $1 15@2; Gros Prunes, $1.05@1.85; Fellenberg Prunes, $1.35; Italian Prunes, $1.60; Tokay Grapes, single crates, $2.85; Muscat Grapes, single crates, 90c@$1.40; Rose de Peru, 95c@$1 15; Fontainebleau Grapes, 80c @$1.55. Gross sales for seven cars, $9428. Weather very hot, and in consequence fruit in ventilated cars is arriving overripe.

Aug. 18.—Four carloads: Gross sales, $5358. Early Crawford Peaches, $1@1.40; Late Crawford Peaches, $1.15@1.55; Foster Peaches, $1.10@1.15; Susquehanna Peaches, $1.20@1.35; Bartlett Pears, $1 75@2.65; German Prunes, $2.10@2.15; Beurre Hardy Pears, $2.30@2.35; Gros Prunes, $1 20@2 20; Fellenberg Prunes $1.20@1.50; Silver Prunes, $1.50; Egg Plums, $1@1 25; Japan Plums, $1.75; Orange Cling Peaches, $1.50; Nectarines, $1.25@1 35; Grapes, $1.50.

Aug. 18.—Five carloads: Yellow Egg Plums, 85@90c; French Prunes, $1; German Prunes, $1.30; Gros Prunes, $1.65; Bartlett Pears, $1.80@2 85; Susquehanna Peaches, $1.10@1.40; Orange Cling Peaches, $1.20@1.35; Muir Peaches, $1.05; Lemon Cling Peaches, $1; Crawford Peaches, $1.35; Fontainebleau Grapes, 80c@$1.45.

Aug. 19.—Three carloads: Golden Cling Peaches, $1.75; Centennial Peaches, $1.55; Susquehanna Peaches, $1 25@1.45; Orange Cling Peaches, $1.25@1.45; Crawford Peaches, $1.45; Wheatland Peaches, $1.45; Reeves' Favorite Peaches, $1.45; Foster Peaches, $1.40@1.65; Yellow Egg Plums, $1.15@1.30; Kelsey Japan Plums, $2.75; Fontainebleau Grapes, half-crates, 95c@$1.30; Black Malvoisie Grapes, half-crates, $1.35; Muscat Grapes, half-crates, 95c@$1.65; Rose de Peru Grapes, half-crates, $1.15.

Aug. 19.—Four carloads: Gross sales, $5219. Early Crawford Peaches, $1@1.33; Late Crawford Peaches, $1.40@1.50; Susquehanna Peaches, $1.25@1.40; Cling Peaches, $1 30@1.50; Peaches, 40c@$1.50; Bartlett Pears, $2.50@3.75; Egg Plums, $1.05@1.62; P. D. Plums, $1.32; Japan Plums, $1.80@4.25; Nectarines, $1.30; Gros Prunes, $1.35@2.05; Silver Prunes, $1.15@1.30; Fellenberg Prunes, $1.80; Bulgarian Prunes, $1@1.05; Columbia Plums, $1@1.05.

Aug. 20.—Four carloads: Gross sales, $5773. Early Crawford Peaches, $1.05@1.30; Late Crawford Peaches, $1.15@1.80; Cling Peaches, $1.35@1.75; Susquehanna Peaches, $1.21@2.15; Bartlett Pears, $1 85@3.25; Bradshaw Plums, $1.05@1 40; Japan Plums. $3.35; Gros Prunes, $1.30@1.60; Grapes, 65c@$2.10; De Congress Pears, $2.65; Fellenberg Prunes, $1; Washington Plums, 90c@$1.25; Egg Plums, 90c@$1.55; Plums, $1@1.45; Nectarines, 35@55c; Yellow Peaches, $1.30@1.70; French Prunes, $1.05; Hungarian Prunes, $1.60; Prunes, $1.50; Bulgarian Prunes, $1 10.

Aug. 22.—Six carloads: Crawford Peaches, $1.20@1.35; Susquehanna Peaches, $1.35@1.45; Yellow Free Peaches, $1.30; Orange Cling Peaches, $1.35@1.60; Golden Cling Peaches, $1.80; Centennial Peaches, $1.70; Muir Peaches, $1.15; Bartlett Pears, $2.40@3; some overripe, $1.30@1.80; Beurre Hardy Pears, $2 35@2.45; Tokay Grapes, half crates, $2.10; Rose de Peru, half crates, $1; Black Malvoise Grapes, half crates, 75c. Quackenboss Plums, $1.25; Bradshaw Plums, $1; Yellow Egg Plums, 85c.

Aug. 22.—Nine carloads: Bartlett Pears, $1.65@3 35; Souvenir Congress Pears, $2.35@2.85; Crawford Peaches, $1.10@1.75; Yellow Peaches, $1 35@2 10; Orange Cling Peaches, $1.10@1 75; Susquehanna Peaches, $1@1.70; Japan Plums, $1.65@2.55; Quackenboss Plums, $1.30; Bradshaw Plums, $1.55; Egg Plums, 90c@$1.70; Columbia Plums, $1 05@1.35; Gros Prunes, $1.20@2.05; Muscat Grapes, single crates, $1@1.50; Tokay Grapes, single crates, $2 05.

At Chicago.

Aug. 17.—Seven carloads: Bartlett Pears, $2 45@3.05; Flemish Beauty, $1.65; Fellenberg Plums, $1.45; Egg Plums, $1.10@2.20; Columbia Plums, $1.10@1.15; Bradshaw Plums, $1@1 20; Gross Prunes, $1.05@1.45; German Prunes, $1.90; French Prunes, $1.05; Crawford Peaches, 80c@$1.10; Orange Cling Peaches, $1.30; Chassellas Grapes, half-crates, $1.75.

Aug. 17.—Eight carloads: Nectarines, $1.05@1.10; Egg Plums, $1 25@1.30; Peaches, 75c@1 50; half-boxes Peaches, 75@95c; Japan Plums, 80c@1.75; Bartlett Pears, $1.45@3.20; Souvenir de Congress Pears, $2.30; Cling Peaches, $1@1.65; Bradshaw Plums, 95c@1.05; Columbia Plums, 95c@1.25; Prunes, $1.25; Silver Prunes, 95c@1.05; Grapes, $1.35@1.65; Duchess Pears, $1.85; Gross Prunes, $1@1 50; French Prunes, $1.10; Hardy Pears, $1.55; Clapp's Favorite Pears, $1 45; Vicar Pears, $1; Louis Bonne, St. Michael's Doyenne Pears, $1.45; Hungarian Prunes, $1.05; Golden Drop Plums, 75c@$1.10; Fellenberg Prunes, $1; Plums, $1.20@1.50; Rose de Peru Grapes. $1.30@1.50; Muscat Grapes, $1.80@2; Tokay Grapes, $2.50@3.25; Crawford Peaches, 75c@1 20; Muir Peaches $1.20; overripe Bartlett Pears, 70c$1.50.

Aug. 18.—Eleven carloads: Malaga Grapes, $1.70@1.85; Muscat Grapes, $1.15@1 65, single crates; overripe, 90c; Bartlett Pears, $1 75@3; Bartlett Pears, overripe, $1.40@1 60. Susquehannah Peaches, $1.15@1 25; Cling Peaches, $1.15@1.25; overripe, 60@85c; Muir Peaches, 95c@$1; Crawford Peaches, 90c@1.10; Nectarines, $1.10; Beurre Hardy Pears, $2.15; Bernard Peaches, 75c; Beurre Clairgeau Pears, $1 90@2.05; overripe, 90@1.40, Vicar Pears, 1.40; Gros Prunes, $1 05@1.55; Peaches, 80c@1.65; overripe, 25@65c; Prums 65c@$1.20; Seckel Pears, $1 65; Mixon Peaches, 80c; Tokay Grapes, $1.60@3 60; Prunes, 65c@1.20; Silver Prunes, 70c; Grapes, $1.30@1.70; overripe, 80c; Pears, $1.90@3 Howell Pears, $2.15. Weather very hot.

Aug. 18.—Seven carloads: Fontainebleau Grapes, half-crates. $1.50; Mu cat Grapes, half-crates, $1.75; Rose de Peru Grapes, half-crates, $1 20@1 25; Black Malvoise Grapes, half-crates, $1.25; Tokay Grapes, half-crates, $$1 90@2.50; Bartlett Pears, $2.25 $3.10; Red Nectarines, $1 10; Golden Drop Plums, 90c@$1.05; Bradshaw Plums, 90c@$1; Yellow Egg Plums, 85c@$1.20; Washington Plums, 80.@$1 10; Quackenboss Plums, 90c@1.10; Hungarian Prunes, $1 10; Gross Prunes, $1.10@1.20; Italian Prunes. $1 40; Silver Prunes, $1; Bulgarian Prunes, $1.20@1 25; German Prunes, $1@1.20; Orange Cling Peaches, $1@1 20; Muir Peaches, $1@1.05; Foster Peaches, $1.10; Centennial Peaches, $1.35; Golden Cling Peaches, $1.15@1.30; Early Crawford Peaches, $1.05@1.10; Columbia Plums, 90c@$1.10.

Aug. 19.—Six carloads: Crawford Peaches, $1.10@1.15; Susquehanna Peaches, $1@$ 10; Yellow Cling Peaches, $1.10; Muir Peaches. 90c@1.05; Orange Cling Peaches, $1 @1.20; Golden Cling Peaches, $1.25; Centennial Peaches, $1.25; Taylor Peaches, $1.25; Bartlett Pears, $2.25@3; Beurre Hardy Pears, $2.20; Fontainebleau Grapes, half-crates, $1.15@1 30; Yellow Egg Plums, $1@1.15; Columbia Plums, 9 c@1.15; Bradshaw Plums, $1.05; Kelsey Japan Plums. $1.75; Magnum Bonum Plums, 70c; Petit Prunes, $1 15; Gros Prunes, $1.05@1.25; Bulgarian Prunes, $1.25; Silver Prunes, 95c; German Prunes, $1.65. Some fruit overripe and in bad order sold for less.

Aug. 19.—Eight carloads: Bartlett Pears, $1.50@3; overripe, 65c@$1.25; Peaches 60c@$1.50; Silver Prunes, 60@75c; Gros Prunes, $1@1.30; Plums, 25c@1 30; Grapes, 55c@$1.75; Seckel Pears, $1.60; Beurre Hardy Pears, $1.90; Cling Peaches, $1@1.10; Susquehanna Peaches, $1.10@1.15; half-boxes Susquehanna Peaches, 65c; Swan's Orange Pear, $2.35.

Aug. 20.—Nine carloads: Bartlett Pears, $2 50@2.85; Bartlett Pears (heated), $1 30@2.05; Peaches, $1@1 15; overripe. 40@95c; Grapes, 75c@$1.65; Cling Peaches, 50@70c; Prunes, 65c@1.20; Muscat Grapes, 80c@1.80; Pears, $1.80@2.05; Japan Plums, $1 50@1.55; Egg Plums, $1.25; Plums, 75c@$1.40; Tokay Grapes, $2.50; Rose de Peru Grapes. 75c; Keifer Pears, $1.25; Diels Pears, $1.40; Hamburg Grapes, $1.30; Gros Prunes, 85c@$1; Beurre Clairgeau Pears, $1 40; Duchess Pears, $1.50; Louis Bonne Pears, $1.50

Aug. 20.—Four carloads. Bartlett Pea s, $2 25@2.50; some overripe, $1@1 75; Howell Pears, $2; German Prunes, $1.25; Gros Prunes, $1.10; Susquehanna Peaches, $1.05; Egg Plums, 65c@$1.

Aug. 22.—Six carloads: Bartlett Pears, $1.75@2 75; Congress Pears, $2; Early Crawford Peaches, $1 10; Late Crawford Peaches, $1@1 10; Orange Cling Peaches, $1@1.10; Susquehanna Peaches. 85c@$1.05; Taylor Cling Peaches, $1; Lemon Cling Peaches, $1; Muir Peaches. 80c@$1; German Prunes. $1.15@1.25; French Prunes, $1; Silver Prunes, 85@95c; Gros Prunes, $1@1.50; Egg Plums, 85c@$1.05; Kelsey Japan Plums, $1.70; Columbia Plums, 90c@$1; Quackenboss Plums, $1.25; Washington Plums, $1.05; Yellow Egg Plums, 90c@$1.10; Bradshaw Plums, 85@95c. Some fruit overripe sold for less.

Aug. 22.—Twelve carloads: Peaches, 55c @ $1 20; Crawford Peaches, 90c; Cling Peaches, 70c@ 1.10; Muir Peaches, 80c; Bartlett Pears, good condition. $1.50@2.40; overripe, 60c@$1 40; Muscat Grapes, 95c@$1.50 for single crates and $2.70 for full crates; Tokay Grapes, $1.1f@2.40; Gros Prunes. 70c@$1 50; Grapes, 50c@$1 30. Nectarines, 85c; Howell Pears, $1.20; Beurre Clairgeau Pears. $1.05@2; Seckel Pears. $1.30; Prunes, 65c@$1.15; German Prunes, 80c; Egg Plums, 50@80c Plums, 60.@$1.05; Japan Plums. $1.20; Beurre Hardy Pears, $1.80 All fruit in ventilated cars arriving in bad condition.

At Boston.

Aug. 17.—Two carloads: Early Crawford Peaches, $1.35@1.80; Mary's Choice Peaches, $1.25; Columbia Plums $1.40; Egg Plums, $1.40@1.80; Bartlett Pears, $2@3.15.

Aug. 18.—Three carloads: Early Crawford Peaches, $1.75@1.90; Late Crawford Peaches, $2@2.10; Orange Cling Peaches, $1.60@1.70; Lemon Cling Peaches, $1.75@2.05; Tuscan Cling, $1.75; Gros Prunes, $1 60; Italian Prunes, $1.30; Columbia Plums, $1.25; Egg Plums, $1.50.

Aug. 19.—Three carloads: Early Crawford Peaches, $1.85@2.25; Stephen's Cling Peaches. $2; Susquehanna Peaches, $1.70; Muir Peaches, $1.65; Quackenboss Plums, $1.25; Egg Plums, $1.55; Bradshaw Plums. $1.15; Victoria Plums, 85c; Columbia Plums, $1 05@1.15; Washington Plums, $1.15; Purple Duane Plums, $1.30; Gros Prunes, $1.35@1.75.

Aug. 20.—Two carloads: Early Crawford Peaches, $1.40@1.80; Late Crawford Peaches, $1 85@1 90; Madeline Grapes, half-crates. $1.35; Bartlett Pears, $1.75@2.25; Egg Plums, $1 10@1.20; Columbia Plums, $1.05; Magnum Bonum Plums, 95c@$1.05; German Prunes, $1.10@1.15.

Aug. 22.—Three carloads: Crawford Peaches, $2 05; Foster Peaches, $1.65@2; Orange Cling Peaches, $1.90@2; Muir Peaches, $1.40; Golden Cling Peaches, $2.50; Centennial Peaches, $1 75; Susquehanna Peaches, $1 65@2; Bartlett Pears, $1 35@2.30; Congress Pears, $1.90; Clapp's Favorite Pears. $1 70; Muscat Grapes, half crates, $1.20; Bradshaw Plums. 85c@$1.60; Columbia Plums, 85c; Yellow Egg Plums, 75c@$1.25; Gros Prunes, $1.35; German Prunes, $1.15; Petit Prunes, $1.35.

At Minneapolis.

Aug. 17.—Three carloads: Peaches, $1 10@1.35; Pears, $1.10@3 15; Grapes, $1.05@1.15; Plums. $2.10.

Aug. 18.—Three carloads: Peaches. 95c@$1.10; Tokay Grapes, $3.80; Muscat Grapes, $1 50; Pears, $2.05@3 25; Plums, $1.20@2.85; Beurre Clairgeau Pears, $2@2.10.

Aug 19.—Four carloads: Muscat Grapes, half-crates. $1.20@1.60; Tokay Grapes, half-crat s, $2.95; Rose de Peru Grapes, $1.05; Fontainebleau Grapes, half-crates, $1.05; Yellow Egg Plums, $1 55; Susquehanna Peaches, 95c@$1.10; Yellow Cling, 95c; Orange Cling Peaches, 95c@$1; Crawford Peaches, 85c; McDevitt Peaches, 90c; Foster Peaches, 95c; Hungarian Prunes. $1 85; Bartlett Pears. $3.35.

Aug. 19.—One carload: Pears, $1.25@1.70; Plums, $1.50@2; Peaches, 60@95c.

Aug. 20.—One carload: Bartlett Pears at an average of $2 per box.

Aug. 20.—Two carloads: Peaches, 45c@$1.05; Pears, $1.35@2.45; Fellenberg Prunes, $1.80; Gros Prunes, $2.10; Bartlett Pears, $1.25@2 30.

Aug. 22.—Three carloads: Peaches, 55c @ $1.05; Pears, $1 55@2.10; Muscat Grapes, $1 35. All fruit in ventilated cars is arriving in bad condition.

At Omaha.

Aug. 17.—One carload: Peaches, $1@1.30; Pears, $1.50@2.50.

Aug. 19.—One carload: Pears, $1.50@2.25; Peaches, $1@1 25.

Aug. 22.—Four carloads: Peaches, good condition. $1@1 20; bad order, 50@60c: Pears, $1.75@2.25 All fruit in ventilated cars is arriving in bad condition.

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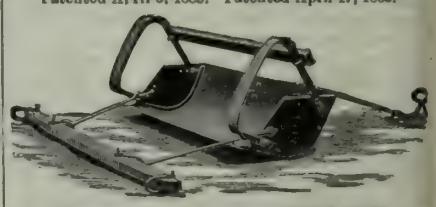

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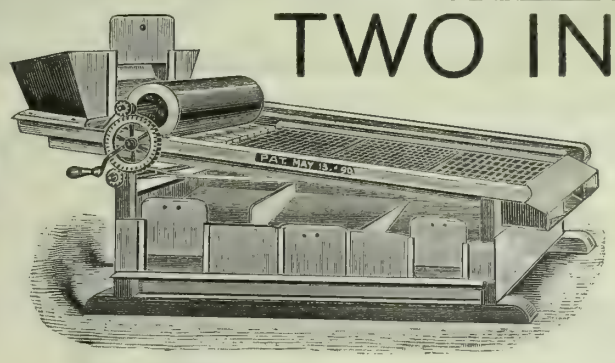

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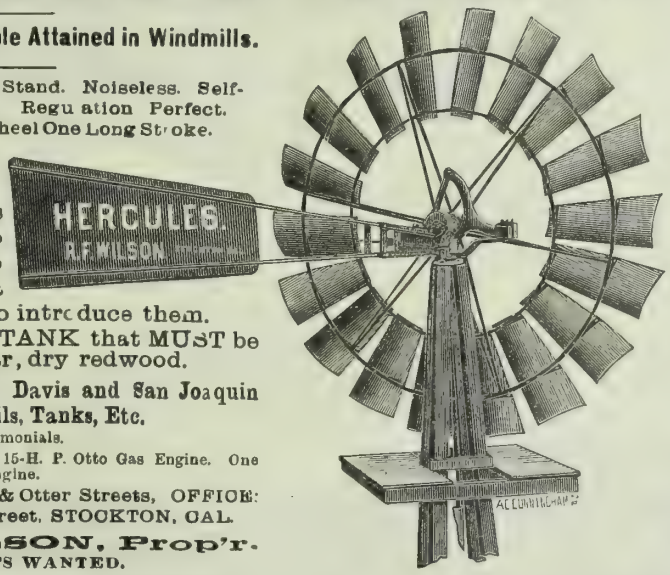

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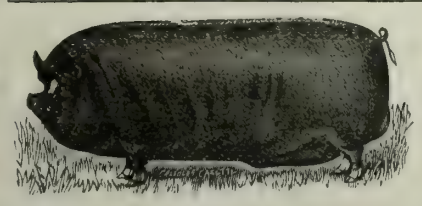

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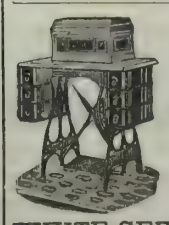

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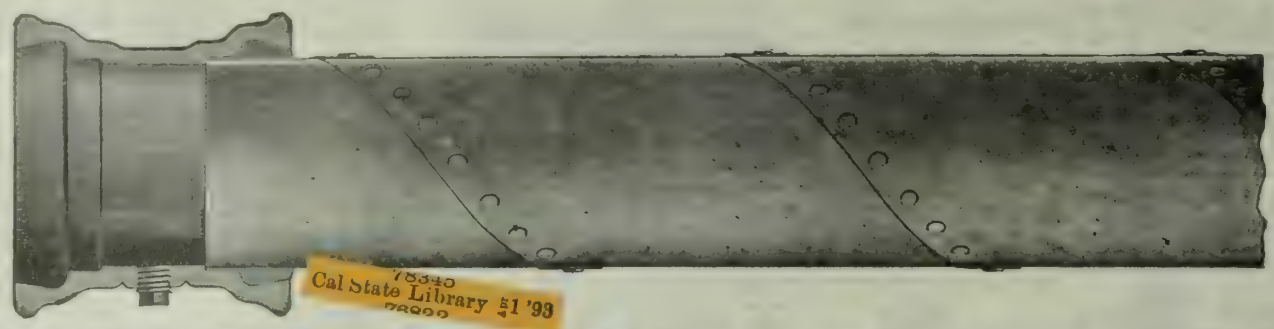

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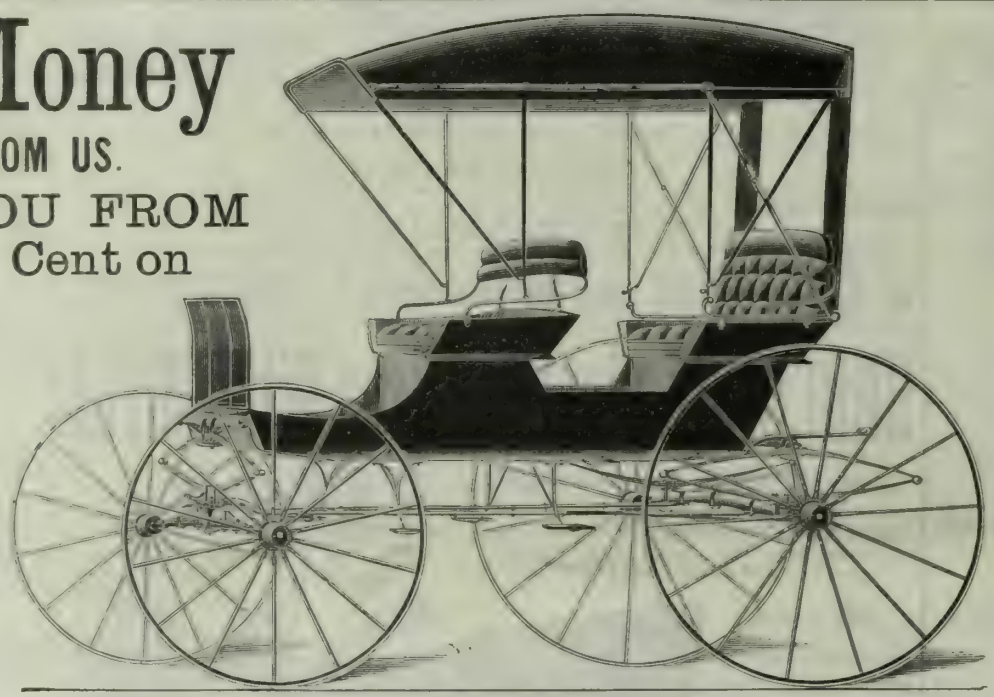

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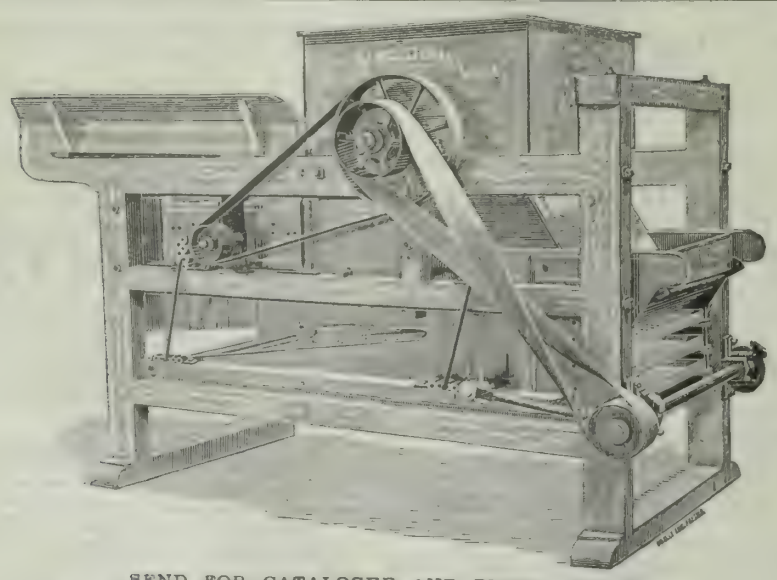

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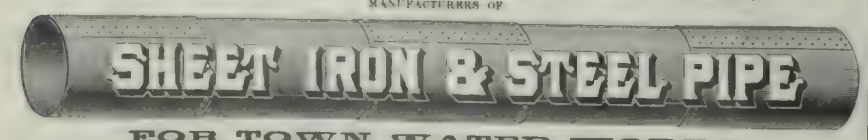

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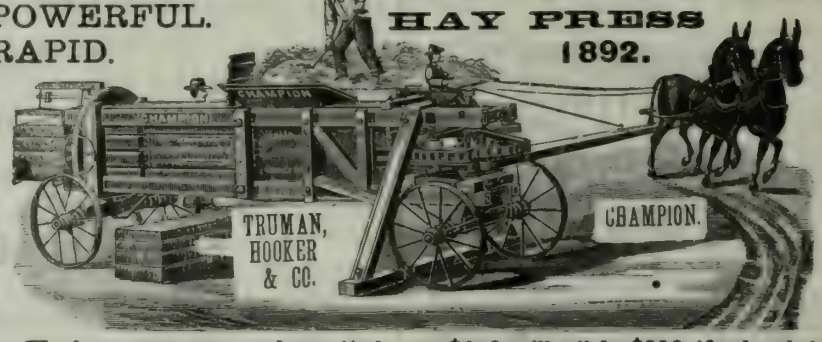

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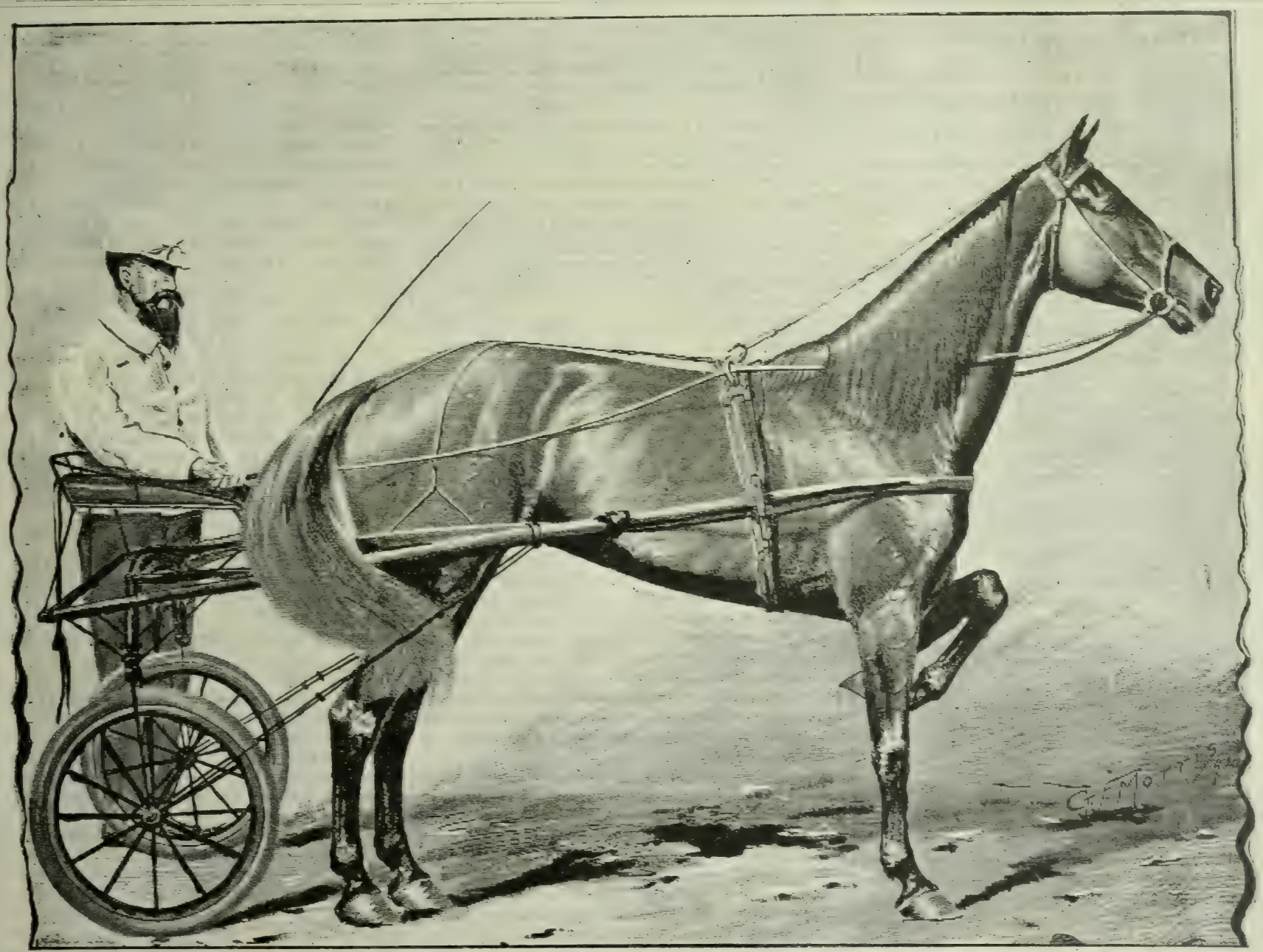

NANCY HANKS (2:05¼), QUEEN OF THE TROTTING TURF, AND HER PNEUMATIC-TIRE SULKY.

The State Fair Next Week.

Next Monday, Sept. 5th, the annual fair of the State Board of Agriculture will open in Sacramento. Unusual preparations have been made for the exhibitions. Exceptionally attractive inducements are offered to visitors and most liberal awards have been hung up for competition in all the lines of productive enterprise. The society, too, has succeeded in arousing greater popular interest in its efforts this year than ever before. All these facts indicate the entertainment and profitable instruction of visitors, and should assure exhibitors that their best efforts will be appreciated and rewarded by public favor.

Our columns have from time to time indicated some of the special features and unusual preparations for this year's fair. It may, however, be repeated in a general way that there have been notable improvements made at the park to better accommodate the display of livestock.

This includes both the speed contests and the exhibition of the finest specimens attained in the art of breeding all kinds of domestic stock. At the pavilion there has been found the necessity of adding to the already vast capacity of the building. We expect to see this year also a greater proportion of agricultural and horticultural produce, as compared with merchandise. There will also be the intensely interesting and important loan display of historic material, secured through the devoted efforts of Mr. David Lubin. This alone will be worth going the length of the State to see and to carefully study.

There is special significance in this year's fair in its bearings upon the California display at the World's Fair next year. There should be a grand rally of all those who expect to participate in the Chicago affair, either as local commissioners or as private exhibitors. There is no way in which so many valuable hints can be obtained as to what sort of material is best to show and how it can best be displayed. The State Fair this year will be a school of practical instruction to that end.

The Sacramento people seem to be cooperating with the State Board and Secretary Smith this year as never before. A large concourse of people is expected, and we understand that a committee will have headquarters at the railway station for the purpose of directing visitors to such accommodations as they desire.

The Queen of the Turf.

We are glad to be able to gratify the general desire to see the new queen of the turf, by reproducing from the *Breeders' Gazette* of August 24, a striking portrait of Nancy Hanks, and a picture of the new racing outfit with which she made her wonderful speed. Interest will perhaps be divided between the horse and the novel sulky, and it is in fact a good deal of a question how much of the second of time is to be credited to the horse and how much to the sulky, with its so-called pneumatic rubber tire. On this point the *Gazette* says: "Nancy Hanks had the advantage of a pneumatic-tire sulky, the latest accessory to the outfit of a modern trotter, and it is not to be doubted that this made a difference of possibly half a second in her speed to the mile. But by trotting in 2:07¼ she wiped out all existing records on both oval and kite tracks.

LATER—Just as we go to press comes the news that this wonderful mare has again lowered the record. On a kite-shaped track, at Independence, Ia., Wednesdey afternoon, she trotted a mile in 2:05¼.

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ANY subscriber sending an inquiry on any subject to the RURAL PRESS, with a postage stamp, will receive a reply, either through the columns of the paper or by personal letter. The answer will be given as promptly as practicable.

Our latest forms go to press Wednesday evening.

ALFRED HOLMAN.....General Manager

SATURDAY, SEPTEMBER 3, 1892.

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BUSINESS ANNOUNCEMENTS.

[NEW THIS ISSUE.]

Harrows, Seeders, Plows, Etc.—H. C. Shaw Plow Works, Stockton.
Harrows, Seeders. Plows, Etc.—Baker & Hamilton.
Cream Separators—G. G. Wickson & Co.
Wire and Wire Goods—California Wire Works.
Pumps, Windmills, Engines, Etc.—Byron Jackson.
Gas or Gasoline Engines—Union Gas Engine Co.
Plows—Deere Implement Co.
Seed Drills, Plows, Harrows, Etc.—Frank Brothers.
Plows, Harrows, Wagons, Etc.—Allison, Neff & Co.
Boilers, Engines, Pumps and Machinery—Joshua Hendy Machine Works.
Cream Separators—A. J. VanDrake.
Pumps, Windmills, Tanks, Etc.—F. W. Krogh.
Fertilizers—H. M. Newhall & Co.
Gas Engines—Adam Schilling.
Gas Engines—M. A. Graham.
Hydraulic Engines—The Pelton Water Wheel Co.
Sheep Dip—Shoobert, Beale & Co.
Sheep Dip—Catton, Bell & Co.
Eureka Fence—California Fence Co.
Oxford Down Sheep—W. A. Shafor, Middletown, Ohio.
Washing Machines—E. W. Melvin, Sacramento, Cal.
Guns—George W. Shreve.
Saddlery and Harness—C. L. Haskell.
Situation Wanted—T. H. Cormode.
Guns—The Powell & Clement Co., Cincinnati, Ohio.
☞ *See Advertising Columns.*

The Week.

The coming event casts its shadow before. This week's RURAL has to a certain extent been planned with reference to the State Fair which opens in Sacramento next Monday. We have endeavored to make some general statements about the conditions attending life in California which though already known to residents may not fail of interest as restatements.

There is also a very full review of California's leading agricultural products which will give even the resident new ideas, perhaps, of the industrial greatness of the State.

We incline toward these statements because the event of the State Fair seems naturally to suggest them, and because of the extra circulation of our paper there, copies will naturally come into the hands of those new to the State and may furnish them acceptable information. This copy will also serve well as a souvenir copy to send to friends in distant parts.

The RURAL is constantly gaining in public favor. The changes made in style and material seem to meet wide commendation. If you like the RURAL don't forget to speak a good word for it to the new comers, or to old residents who would be interested in our work.

THE ELBERTA PEACH.—Samples of California grown specimens of this famous eastern peach were shown at the Horticultural Society meeting last week by Leonard Coates of Napa. It is a very handsome yellow freestone, somewhat oval in form. How its value compared with popular California varieties is still to be determined. The Elberta originated with Mr. S. H. Rumph of Marshallville, Ga., and the original tree is 21 years old. It is a seedling of Chinese Cling, supposed to have been fertilized by Crawford's Late. Its hardiness seems to be well established at the East, and this may make it valuable in some parts of this coast.

Does Stirring the Soil Prevent Evaporation?

PLYMOUTH, MICH., Aug. 20, 1892.

TO THE EDITOR:—The theory prevails quite generally that stirring up the soil is a preventive of the escape of moisture by breaking off the small capillary tubes, through which moisture descends in rains and dews, and from which it escapes in dry times.

This is the notion or theory of many tillers of the soil, and during a drouth the cultivator is kept in motion, or the hoe, to loosen up the soil.

But do facts prove this to be a good practice? On the contrary, is it not a fact that stirring up the soil exposes it still more to the drying influence of the sun and the winds? Is it not true that land that is rolled or smoothed over, as is the custom with many, will retain moisture longer than where it is stirred up?

On a small plot of ground in California I raised a fine lot of vegetables that took first prize at the fair in Salinas, Monterey county. No cultivator was used and no water irrigation, but the hoe was kept busy, not digging up the soil but just scarifying the ground so as to cut off every weed just below its crown as soon as it made its appearance. A neighbor having crops in an adjoining field, not liking to hoe, kept the cultivator going, stirring up the soil, but his crops suffered much more than mine from the drouth.

For two years I had an excellent garden here in Michigan on the yellow pine lands of Muskegon county, with no plowing and no cultivating, but by simply raking the garden before planting with a steel-toothed rake; but no weeds were suffered to grow. One year, a family living in the house with me wanted to use part of the garden. A division was made, and their part thoroughly spaded up, so as to "beat me." As the weeds appeared they were dug up, boy fashion, with the corner of the hoe, instead of cutting them off at the surface or just below it. The result was, they had to depend on me for vegetables, as theirs was nearly a failure. There was growing on this farm last year a crop of corn where there were no weeds. A dry spell came, and the owner went to cultivating, turning up the soil so as to 'draw moisture," he said. In a day or two the corn began to wilt, and he had a poor crop.

While living on the sandy plains a few years ago, my crops suffered with others from the drouth, and I kept the cultivator going, stirring up the soil, but my crops wilted. Going into the road where the dirt had not been disturbed, the surface was scraped away, and just below, the ground was moist. Since then I have let my ground severely alone when there were no weeds. These, more than anything else, take moisture and nutriment from the ground.

My father always had an excellent garden, but he would not have a cultivator in his garden nor allow a weed to grow, but cut them off as soon as they appeared. If a cultivator were invented that would shave off the weeds at the surface instead of stirring up the soil to be exposed to the drying effects of the sun and the winds, the result, I think, would be better. The only advantage of stirring up the soil to any depth is to do it just at night, so that there may be a deposit of moisture from the air on the cool soil, but if stirred up early in the day and exposed to the sun and winds, it will be liable to become as dry as ashes. J. S. TIBBITS.

The subject which our correspondent broaches is an exceedingly important and practical one, and we are disposed to indulge in a few comments.

Does stirring of the soil prevent evaporation? As a general proposition, yes. For proof of the general proposition, go into a well-cultivated orchard and vineyard and scrape aside the loose surface soil with your foot. You will find moist soil quite near the surface. Then go over the fence into the grain stubble and try your foot upon ground which has not been loosened since impacted by last winter's rains. You may dislodge a little little loose dirt. Then send for a pick and shovel (and another man, too, would be comfortable) and dig a hole. You may go three or four feet, or farther, and hardly find the color of moisture in the soil.

Take another proof of the general proposition. Many people know of young orchards or vineyards which have been allowed to go uncultivated, or have been carelessly and imperfectly cultivated. Right alongside of them have been well-kept trees and vines of the same age. The uncultivated trees have made poor growth, have a sickly appearance, and a part of them have actually perished. Those adjoining, well cultivated, have grown well, have a fresh, thrifty look, and will average twice the size of the best survivor of neglect. There is no clearer proposition in California horticulture than that proper stirring of the soil prevents evaporation, and therefore conserves moisture for the use of the plant.

This is the general proposition: how then can our correspondent's statements be true? We can conceive of such results under several conditions.

First.—In very loose, sandy land the deeper it is stirred by cultivation in a dry time the worse for the plant, for two reasons. Sandy land by its coarse materials is weak in capillarity. Water rises in a tube inversely as the size of the tube; that is, the larger the tube the shorter distance it will rise and vice versa. Soils have capillarity because the minute interstices between their particles act as tubes. The coarser the particles the larger the interstices or tubes. If the sandy soil be compacted, capillary action may increase so as to draw up moisture enough to sustain the plant. If it be disturbed by cultivation, not only may this be arrested but the loosening of the surface of coarse material will give the atmosphere freer access to a lower stratum of soil and the plant will be robbed in another way. These statements apply with special force to all the growths mentioned by our correspondent; garden vegetables and grains are usually rather shallow-rooting plants.

Second.—Waiting until drouth is imminent and then starting in to loosen up the soil is like hurrying off after preventive medicine when the disease has you in its grip. If cultivation is neglected as long as that, the soil is in such condition that its surface cannot be thoroughly pulverized. Probably the result in such work is generally to open the soil to more rapid evaporation. In time of peace prepare for war, so in time of moisture, while the soil pulverizes easily and completely, prepare for drouth by preparing a surface which has no capillarity, because the interstices in the loosened soil are too large to draw moisture. This shallow layer of finely pulverized soil also acts as a mulch in preventing free access of the air to the evaporating stratum beneath it. Moisture rises by the capillarity of the soil beneath for the use of the plant roots; it does not go farther, consequently evaporation is reduced to a minimum.

Third.—We are tempted to make a point on the phrase "stirring up" the soil which our correspondent uses. "Stirring up" is not good summer cultivation. It may be quite different from stirring the soil, which is the true summer practice. Disturb the soil frequently, but do not throw up moist layers to the air and cover up dust and clods to rob the moist layers into which they are thrown. Disturb it frequently in summer, because in many soils there is a disposition to compact even without rain. It may not be immediately at the surface, but in a layer just below it. From this layer evaporation will then be rapid. The finer the particles of the soil—that is, the farther it departs from sand and the nearer it approaches clay—the greater the necessity for frequent summer cultivation even where neither rain falls nor irrigation water is used. When we advocated deep hoeing in garden-work, it was not to "stir up" the soil nor disturb the relative positions of the layers. It was merely to stir without exposing the moist soil.

Fourth.—On loose soils which need compacting and will, for the reasons stated above, retain moisture better for it, the roller is a good tool. A "rubber" or "smoother" or "clod-crusher" is the better implement where the compacting effect of the roller upon the moist layer of the soil is not desirable. We heard a man tell a roller agent at the State Fair once that he would not let him run his roller once across his orchard for the price of it. He was probably right in the kind, if he did exaggerate the money value of the effect which the roller would produce. And yet the roller on some soils might be worth its weight in eighty-cent dollars.

Fifth.—There are loose soils on which the shallowest kind of cultivation is best. Much of the cursing of California wheat growers for not plowing deep should return upon the curser for his ignorance. The man who gets an idea that virtue rests in a method irrespective of its applicability to conditions, does not know much of agriculture.

Sixth.—We trust our correspondent sees the explanation of his moist roadway and dry cultivated ground on those Michigan sand plains in what has been said.

Seventh.—Weeds are terrible thieves of moisture; there is no doubt about that. We cut them whenever they grow, and we have plenty of just such weedcutters as our correspondent describes now in use in California orchards. They have come into use since he returned to the East. But weed-cutting alone will not do in California. The surface will be ashey, but just below there is a hard layer which evaporates all that is brought up to it by capillary action almost as rapidly as it would go from the immediate surface. A slender-toothed cultivator, a narrow chisel tooth, or a duck-foot with a long, slim standard, which stirs, but does not "stir up," is needed as well as a weed-cutter. Some of the newer cultivators have the two combined.

Eighth.—Atmospheric moisture is best absorbed by a loose, finely-pulverized soil surface. In this country evaporation outdoes absorption over and over again during the season of driest air. No one would think of "stirring up" soil to get anything out of the air, unless it might be in the fog belt of the coast. Better keep what moisture you have in the soil so the plant can have the full benefit of it.

And now a modern preacher who gets to eighthly should have a contribution box shied at him. We desist with the subject only fairly introduced. Perhaps what we have omitted is more important than what we have said.

PHILLIPS' CLING.—J. T. Bogue of Marysville sends us the finest sample of Phillips' Cling peach we have yet seen. They are large and of most beautiful coloring. The canning excellence of this variety has been frequently mentioned in the RURAL.

A TULIP SHOW has been held annually at the Orange Tree Inn, Butley, a small village near Macclesfield, England, for the past 67 years.

THE Government of Portugal has sanctioned the importation of 12,000 kilos of wheat monthly for ten months.

From an Independent Standpoint.

Just before daylight on Monday of the current week, Louis B. McWhirter, a lawyer and editor of Fresno, was called from his bed into his yard by parties unknown and there murdered. His dead body was found shortly after by members of his family, but there was nothing to indicate the identity of the assassins. The explanations given of this foul murder are even more extraordinary than the murder itself. McWhirter, it is said, was one of the leaders in an effort to purify the local politics, and his death was partly in revenge and partly to get him out of the way. McWhirter, it is stated further, had for some weeks past realized that his efforts for political reform were putting his life in peril, and in anticipation of assassination had placed a large insurance upon his life for the benefit of his young wife and child. It is hard to believe that there can exist in a California city a "political situation" so rotten and criminal that assassination is one of its natural and expected methods. We should, indeed, be incredulous if the testimony were not both positive and of unquestioned respectability. That it is a fact, is terrible evidence of the degradation to which our politics has fallen. The people of Fresno, who have suffered this condition of political affairs to grow up, are by this tragedy profoundly moved, and it is reported that a vigilance committee has been organized among its "best citizens" to avenge McWhirter's murder, and to drive out the disreputable and criminal element. Here again is a mistake comparable with the previous wrong of too long toleration. The way to restore respect for law is to stand by the law—not to organize against it. A vigilance committee of respectable people will make lawlessness respectable. If the "best citizens" of Fresno will organize into a society to assist in the enforcement of the law, they will soon rid their city of its criminals; but if they act independent of the law, their violent reform will be but a spasm which, when the times have settled again into quiet, will leave the law less efficient and less respected than before. The only way to make the law respected is to obey it and to enforce its authority. A sure way to put it in contempt and to destroy its usefulness is for the "best citizens" to disregard and trample upon it.

The rioters at Buffalo, N. Y., and in the coal districts of Tennessee, who appealed to brute force for the settlement of the difficulties between themselves and their employers, have been forced to the wall. Fortunately, in this country whoever assumes to be superior to the law always gets convinced before the enterprise is through that there are more law-abiding than lawless people. Perhaps after awhile the trades unions will learn that it is not the policy of this country to allow any organization to override the law of the land and the rights of all the people of the country to liberty and the pursuit of their own interests in their own way. The lesson has been a stern one. Something like twenty of the rioters at Buffalo were killed and considerably more than that number have been killed in Tennessee. At Homestead, Pa., a score of men are under indictment for murder, and thus matters now stand. Hereafter let it be hoped that those who have grievances will be content to rely for their correction upon moral forces and legitimate and lawful methods. It is a natural presumption that whoever resorts to violence in matters of personal difference is in the wrong, and public sympathy and all the force of organized society are now, and always will be so long as civilization lasts, exercised firmly and with vigor and determination in opposition to them. It is to be hoped that trade unionists have learned their lesson.

A press dispatch from St. Paul, Minn., states that the Great Northern Railroad Company has given notice of its withdrawal from the Transcontinental Association, to take effect Jan. 1, 1893. The president of the Great Northern, Mr. J. J. Hill, in explanation of this announcement said to the reporter that the withdrawal of his company is to place it in a position upon the completion of its through line to the Pacific Coast, where it may adopt a policy with respect to rates which will promote the interest of the cities which it reaches, and which have heretofore suffered from discrimination. The Great Northern will have its line completed to Puget Sound by the first of January. Its entire line is controlled upon the basis of stock less than half that of any other transcontinental line, and it can therefore pay dividends on receipts that would be merely fixed charges for any other line. The Great Northern has this advantage over every other transcontinental line, namely, that it has been built on business principles, and that its capitalization represents only the value of the road. No "water" has been forced into its organization, therefore it does not have to earn dividends on an enormous, inflated value. Here is a point where the railroad companies, while dealing grossly with the public, are enabled to make a specious showing. Nearly every railroad in the country is capitalized at two or three times its actual value, as measured by what it would cost to duplicate their roadbeds and rolling stock, and it is the effort to make interest upon this enormous bogus capitalization that enforces excessive charges for freights. Mr. Hill of the Great Northern is quoted as saying that his road, built upon business principles and operated upon business principles, can carry freight from Chicago to the Pacific Ocean cheaper than the same freight can be carried from New York by steamer through the Isthmus Canal. We see no reason to doubt this statement. Possibly after all, if the canal were actually built, the railroads, if reorganized and operated on business principles, would be able to successfully compete with it with freight charges less than one half what they are at the present time. If the Great Northern will stick to its plan and will carry freight for what the service is actually worth, it will result in great benefit, not only to its immediate termini at Puget Sound, but to California, for the water freights down the coast can be made so cheap as to add little to the charge for transcontinental transportation. It would be a curious reversal of the order of things which prevailed ten years ago if, in 1893, San Francisco should get a large share of its heavy freights by way of the northern route and Puget Sound.

The United States is in imminent danger of a visitation of cholera. For several weeks this most dreadful disease has been epidemic in Russia, and the peasants, poorly housed and weakened by a season of famine, are dying at the frightful rate of from five to eight thousand per day. Two weeks ago the plague appeared in Germany, and in Hamburg it has already become epidemic. There, in spite of heroic efforts on the part of the municipality and the most skillful physicians of the empire, the death-rate averages over 30 per day. A report to our Government on the 24th inst., last Wednesday, says: "There have been 300 cases and 120 deaths, 65 deaths occurring to-day. The patients, as soon as reported, are quickly taken by special conveyance to the hospital cholera wards. People living in the streets through which the conveyance passes, shut the doors and windows of their houses until they think the danger of contagion is passed. The dead are taken to public mortuaries, and houses in which patients are found are carefully disinfected. Regulations and instructions for the people are publicly placarded throughout the city." From Amsterdam, Antwerp, Bremen, Paris, Havre, and nearly every other European city of importance north of Italy, reports come of the presence and rapid spread of the plague, and it is not to be doubted that in another month it will have overspread the whole of continental Europe. The English Government has taken energetic measures to protect Great Britain, but the blockade has not been entirely successful. It has been impossible to protect the seaport cities, and there have been several deaths at Glasgow, London and Swansea. A London dispatch of the 29th (Monday) says: "There is no doubt that Great Britain is to have a visitation of the cholera scourge. From Gravesend, Swansea, Glasgow and Dundee, towns in England, Scotland and Wales, reports come of deaths from the disease, showing that the efforts of health officials to keep it out of the country have proved fruitless. This afternoon comes a report that a person has died from Asiatic cholera at Bolton, a large manufacturing town 12 miles northwest of Manchester. The place is one of the principal seats of English cotton manufactures, and thousands of mill operatives live there.

For the past three days (we write on Tuesday) the larger cities of the country have been preparing for the expected plague by energetic efforts at cleansing. San Francisco has already taken the alarm. At the suggestion of the city health officer, the mayor has ordered a general clean-up of the streets and a thorough flushing of the sewers. A commission has been issued for the inspection and purification of Chinatown, and the work has already begun. California has a great advantage in being on the further side of the continent, but it is remembered that when cholera was last prevalent in the United States, we did not escape. What once happened may easily happen again, and it is the part of wisdom to make preparation by establishing the best attainable sanitary conditions. From its situation directly upon the ocean and in the very teeth of the daily ocean breeze, San Francisco has less to fear than the interior where it is hotter and where general sanitary conditions are not so good. It was in the Sacramento valley, notably in the cities of Sacramento and Marysville, that the plague raged most fiercely at the time of its former visit. It was in 1850, the second year of the cholera invasion in the United States, that the plague followed up the army of immigrants which on the 1st of July was scattered for 2000 miles along the route from St. Joseph, Missouri, to Sacramento. It reached the latter city about September 1st, and remained with it until November. Hundreds died uncared for under trees and in out-of-the-way places until the Howard Benevolent Society was organized to care for the victims. Men died in the streets of Sacramento like sheep with the rot. At Marysville the same conditions prevailed. At San Francisco there were a few cases, but the disease did not become epidemic, while in the higher regions east and north of the Sacramento there were no cases at all.

With cholera epidemic at every seaport on the Continent and all but epidemic in the English ports, there is naturally general and profound alarm in the United States. This feeling was increased yesterday (the 29th) by the receipt at Washington of cablegrams from the American consuls at Glasgow, London and Liverpool, warning the Government to quarantine all steamers from Europe and to put the Atlantic cities in a state of defense. The feeling at Washington is illustrated in the following, taken from the dispatches published Tuesday of the current week:

WASHINGTON, August 29.—The treasury officials no longer try to conceal their fears that cholera may be introduced into this country at any moment. Acting Secretary Spaulding admitted as much to-day after receiving a cablegram from Hamburg, via the Department of State, to the effect that the disease is still on the increase. His anxiety was apparent when he read the cable news from the infected districts.

"It is possible," said he, "that cholera may make its way into this country in spite of every effort we are making to prevent it. The Government officials will exercise the utmost vigilance, as far as their jurisdiction extends, but the local and municipal authorities also have an import duty to perform.

"Local authorities in New York and in other cities where immigrants are landed should at once set to work to clean up the city and wipe out those resting places where cholera would first seek if it once obtained admission to our shores. It seems as if the dread disease was making direct for this country, and it becomes a matter of self-preservation for us to remove every pretext for it to linger with us should it come."

Surgeon-General Wyman was an early caller at the Treasury Department and he had a long and earnest conversation with Mr. Spaulding on the subject. The doctor said the situation is becoming more serious as the disease spreads. He had hoped that to-day's reports from abroad would show a decrease in the number of cases.

He said that New York had a first-class quarantine plant in charge of a capable physician, Dr. Jenkins. Boston, Philadelphia and Baltimore also have well-equipped quarantine stations. Charleston, S. C., probably has the best plant of any of the quarantine stations along the Atlantic coast, because of the fear of yellow fever coming from the South.

While there is no disposition at this time on the part of the Treasury to criticise the quarantine system provided by the several States, there is nevertheless a general feeling that the national quarantine system probably will be more effective in the emergency like that now threatened. Local quarantine officers are frequently selected as a reward for political service rendered, and it is said that immigrants are sometimes passed through quarantine at the instance of influential politicians.

Santa Clara Valley Fruit Sales.

CAMPBELL, Aug. 29, 1892.

TO THE EDITOR:—The Santa Clara County Fruit Exchange sold all the Camel brand of apricots, except one carload of fancy goods, at 16c for extra; 15c, first grade; 14c, second-grade, in boxes. For the fancy lot, 16c in bags has been bid, but not less than 17c will buy them. Nearly all the apricots in the valley have been sold.

The same day the Camel brand of apricots was sold, they were selling in New York at "13 to 13½ in sacks, f. o. b. California, three-quarters sight draft, balance on arrival."

The Fruit Exchange sold for spot cash as above. These figures are worthy of study.

The difference in the price the fruit was bringing in New York and in the price paid to the Fruit Exchange on the same day is shown above. I can hear of no prunes for sale at less than ten cents for the four sizes.

The business of the Santa Clara County Fruit Exchange is being wholly done at Campbell, Cal., where samples of fruit, nuts, etc., may be left by the stockholders for sale, stating the quantity and price asked. They will be sold if the price asked can be obtained, otherwise they will be held subject to the order of the owners. F. M. RIGHTER,
Ass't Manager Santa Clara County Fruit Exchange.

THE PURE FOOD SHOW.—At its meeting last Friday the State Horticultural Society decided to make an exhibit of California dried and canned fruits in the Pure Food Exhibition which will be held in Madison Garden, New York city, in October. A committee has been appointed who will have the matter in charge. The exhibit is not to be large, but of peerless quality. The society desires contributions of this kind of fruit products, and correspondence can be had with the chairman of the committee, B. M. Lelong, 220 Sutter St., S. F.

NANCY HANKS, in going a mile in 2:07¼, covered a distance of 41½ feet per second. It is good, moderate, ordinary railroad speed.—*Cincinnati Commercial.* That is about one-half faster than California railroad time.

Weather and Crop Bulletin for Week Ending August 29th.

[By W. BURROWS, Acting Director of State Weather Bureau.]

The weekly report of William Burrows, acting director of the State Weather Bureau, shows that there has been no material change in any feature of the crop situation since the issue of last week's bulletin, there having been a continuation of the same favorable conditions prevailing for the last several weeks. No rainfall has been reported from any part of the State.

The temperature has apparently been very nearly normal (perhaps slightly below) in all districts.

The seasonable temperatures for the past week have, to a considerable extent, offset such slightly injurious effects as may have resulted from the hot wave of the preceding week, and all agricultural operations have apparently gone forward with the most satisfactory results.

Late peaches and prunes are generally reported to be ripening on time and satisfactorily.

Harvesting and threshing are practically finished.

Hops appear to be ripening somewhat slowly, although picking has begun in some sections; and, while specific information on the subject is meager, it is fair to assume, in the absence of adverse reports, that the outlook has undergone no considerable change, and that the prospect remains good.

The following are reports selected with reference to counties:

HUMBOLDT.—*Eureka*—Week has been very favorable for harvesting, and for all other farm work. No change in the crop outlook since last report, except in the potato crop, which promises to be larger than it did a few weeks ago.

Blocksburg.—The hot spell lasted three days. Grasshoppers are plentiful in spots and have destroyed three or four gardens and this year's growth of some young orchards. Threshing begins next week. The grain is good in quality and quantity. Fruit is scarce, but orchards are making fine growth and are healthy.

BUTTE.—*Palermo* — Temperature about the normal. The peach crop is all gathered, except a few late varieties. The grape crop is ripening fast, and there is a large crop of both table and raisin grapes.

LAKE.—*Upper Lake*—Threshing and hay-baling are in progress. There is rather a short crop of hay, late peaches and prunes being only one-third of a crop. Grapes promise to ripen about on time; the latter look well, but will be late.

COLUSA — *Williams*—The conditions have continued favorable during the past week.

Willows.—Wheat is about all harvested, and the crop is about 85 per cent. Barley is all harvested, and will turn out about three-fourths of an average crop. There is a full crop of peaches and pears and about one-fourth of a crop of prunes.

SONOMA.—*Forestville*—Weather cooler and hops ripening slowly. Picking will probably begin soon after September 1st. The peach crop is nearly all gathered. Prunes are light.

Healdsburg—The three hot days ten days ago burned the grapes up badly, and we will have about half a crop. Prune-drying is in progress, and the packing and shipping of Bartlett pears.

NAPA.—*Napa*—Cold mornings, with high fog, have prevailed during the week, with warm sunshine in the afternoons. All fruits are doing well. The fair of the past week was a great success.

SOLANO.—*Vacaville*—The weather for the past week has been unusually hot, and in many sections has injured the grape crop. The hot wind has caused pears and peaches to drop considerably.

SACRAMENTO.—*Franklin*—The weather for the past week was very pleasant, and the sunshine about normal. Hop-picking has begun. Grapes are of good quality, and the crop about average. The grain harvest will be finished within a few days, otherwise nothing doing.

SANTA CLARA.—*Gilroy*—There has been the average amount of sunshine during the past week, which was beneficial. The heat last week did less damage than it was at first feared had been done. The cool weather of this week has been beneficial. Grain is nearly all threshed, and has yielded well.

MONTEREY.—*San Ardo*—After the great hot wave of last week the weather has moderated, and is now quite agreeable. Highest temperature 93°, lowest 46°. All harvesting is over, with very light crops. Fruit is very small, particularly peaches.

SAN LUIS OBISPO.—We have had a cool week to offset last week's very warm weather. The bean crop has recuperated and promises well. Threshing is coming to a close. Prunes are coming on.

TEHAMA.—*Red Bluff*—Temperature above the normal, except on Tuesday last. The northerly winds have materially hastened the drying of fruit. Weather favorable to all fruits.

FRESNO.—Weather cloudless, and temperature 2° below normal. Raisin grapes show from 20 to 25 per cent. sugar. Packing begins this week.

LOS ANGELES.—Peach and prune drying continues. Raisin grapes are generally late, and curing will not begin for some time.

Santa Barbara County Notes.

CARPINTERIA, Aug. 20, 1892.

TO THE EDITOR:—The shortage of rainfall during the past winter and spring is now being felt by fall crops very severely. The walnut crop which gave promise of being heavy, has been shortened in very much. Whole orchards will have nuts that will scarcely pay for gathering. The crop of merchantable walnuts will, therefore, be very short. Beans are ripening prematurely with but few beans to the vine. This fact, together with the unusually small acreage planted this season, should stimulate prices to a high basis. Corn is another staple crop that will not average more than half a crop. Barley, for the amount of acreage, turned out very well, also some wheat in the eastern portion of the county.

Considerable preparations are going on toward gettting up a good exhibit of the productions of the county for the World's Fair.

The lemon-growing industry is bound to become a prominent business here. In Montecito valley the immense lemon packinghouse being built on the Crocker ranch is nearing completion. This fine building is made mostly of stone and glass and is, doubtless, the finest building of the kind in the world. The large orchard set out by Colonel Crocker is doing well. In Carpinteria valley, also, the industry is being pushed. Mr. P. C. Higgins has about 20 acres set out and irrigates them by pumping water from an immense open well, which well is in turn filled by several artesian wells bored for that purpose by Mr. Higgins. Hon. Russel Heath is building a large reservoir in which to store water to use on his lemon trees of which he has this season put out a good many. Major Frithian of New Jersey, has bought the Hall ranch and is cleaning it up preparatory to setting out lemon and olive trees. There are also many smaller lemon orchards being put in throughout this vicinity.

More expensive machinery and buildings are being added continually to the asphaltum works at Carpinteria, and the business is becoming an important one.

The Boulevard work at Santa Barbara is progressing slowly. It will be a grand drive by the ocean when finished. Several franchises are being petitioned for. Quite a flow of gas and artesian water has been struck by the the Santa Monica Oil Co. in their well at Carpinteria.

L. B. CADWELL.

Another Week in the Beet Fields.

The week just past has been by far the most successful one we have yet seen in Chino, and we feel entirely safe in saying the most successful, everything considered, that has ever been experienced at any factory in America. In the six working days ending Wednesday night there were delivered, in round numbers, beets, as follows: Thursday, 325 tons; Friday, 366; Saturday, 417; Monday, 421; Tuesday, 425; Wednesday, 456. The total for the six days was 2411 tons, or an average of 401 tons per day. Anyone who has had experience in delivering and weighing produce will understand that this requires some lively work.

The past few days have been somewhat cool and not favorable to the development of a high percentage of sugar in the beets, yet the analyses have been very satisfactory, showing a good quality throughout. The following are the results of a few analyes made this week:

	Sugar.	Purity.
J. M. Craw	14.4	79.2
A. J Young	14.3	79.9
E. R. Robertson	13.5	82 7
W. A. Lyell	13 9	80.8
M. D. Herring	14.0	81 2
R. Gird	16.6	84.9
R. Gird	15.6	82.4
R. Gird	15.8	82.4
R. Gird	15 9	83 9
—— Scott	15.3	84.7
E. R. Robertson	14.3	81.9
B L. Musseter	15.9	84.4
W. A. Lyell	14.3	82.5
L. H. Young	14.6	81.1
T. Lawson	14.4	84.0
E. R. Robertson	13.8	82.9
R. Gird	16.1	84.5
R. Gird	15.1	83.7
R. Gird	15.5	84.9
R. Gird	17.5	85.2

Some remarkably good yields are reported, a number of fields going from 20 to 25 tons to the acre. Jacob Schaffer reports that from 4¾ acres he harvested 104 tons, or 22 tons per acre. The average percentage of sugar was 15, making $4.25 the price paid. This makes $93.50 per acre as the returns from that field. Mr. Schaffer is now at work on the remainder of his beets, and he will realize a splendid profit throughout. We hope in a week or two to publish itemized accounts of expenses and returns from a number of farmers.

On Saturday and Monday Mr. Gird paid his labor accounts for July, amounting to $4400.21 on the beet fields alone. This is not as large an amount as was paid during some previous months, as harvesting did not commence until the 11th of the month, when the force was largely increased. There are now 200 men on the pay roll. The stimulating effect of this industry is being felt far and wide. Between 300 and 350 men are employed altogether, and several hundred families are building for themselves homes where the foundation for lasting prosperity is well-established.—Chino Champion.

Shorthorns in England.

Our English exchanges give accounts of four remarkably good sales that took place in the months of June and July last, when several animals were bought for exportation to France and South Africa.

At Mr. Holford's sale, held during the week of the Royal Show, 23 animals averaged $317, the highest-priced animal being Duke of Leicester 18th sold to Earl Bective for $1050. He also bought the next highest-priced animal, Duchess of Leicester 19th, for $970. There were eight Airdrie Duchess cows and heifers and one bull that sold for an average of $565 each.

Earl Bective and Mr. Holford were purchasers of some of the highest-priced females at the New York Mills sale in 1873, and both have been steadily breeding cattle of Bates blood ever since. The above sale was preceded by a few days by that of 39 animals belonging to Mr. A. H. Lloyd and all of the so-called Bates tribes, which sold for an average of $237. The highest-priced cow in this sale was also of the "Duchess" tribe—Duchess of Surrey 3d—that sold for $1000.

At the close of the sale, Mr. Thornton, the auctioneer, "impressed upon his friends around the ring that this sale must be taken as a turn in the tide, because it shows clearly enough that there are buyers of good Shorthorns at reasonable prices, and that the trade will again come round when there will be 'money in them.' All things considered, the sale must be deemed a good one."

The next sale was that of 53 head belonging to Mr. Hugh Aylmer of West Dereham Abbey, who has long been known as one of the most successful breeders of Shorthorns in England. These cattle differed from those of the two preceding sales in that they were of Booth blood. The 53 head sold for an average of $179 each. Among them were 15 bulls whose average price exceeded that of the females by $61 each, which is always a sure and certain sign of good and useful cattle—that is, when the bulls make a higher average price than the cows at public auction, it shows that that particular blood is wanted.

That was the case at Mr. Holford's sale, where the five bulls sold averaged $71 per head more than the 18 females.

The next sale to be noticed was that of Mr. Trethewey, in the county of Cornwall. One peculiarity of this sale was that the 38 females were all of one family, known by the name of Ruth, with numbers attached to each female, which, in the hands of Mr. Trethewey, have reached up to Ruth 250th. The family has been persistently bred for usefulness, regardless of fashion, and has attained some notoriety on these grounds, as shown by the results of the sale.

Forty-five animals sold for an average of $184, being lower than the average of the two sales of Bates-bred herds and a little higher than that of the one sale of Booth-bred cattle. However, the highest price paid for a "fashionably" bred Duchess cow did not exceed that of 200 guineas paid for the useful and no doubt beautiful Ruth 214th, bought by the Queen. While the highest prices, as a whole, have been made by the Bates-bred Shorthorns, being given chiefly by persons partial to that blood, the popular verdict is for utility, as confirmed by the results of several sales that have recently taken place both in America and England.

The New Beneficial Insect Not Multiplying Satisfactorily.

Recent observations at the south seem to indicate that the new predaceous insects sent by Mr. Kœbele from Australia are not multiplying as fast as desired at the south. From what we have seen in the breeding cages at the headquarters of the Board of Horticulture in this city, we considered their increase rapid, but this does not seem to be so thus far in southern California. We find the following article on the subject in the Los Angeles *Times* of August 13th:

Much has been said touching the efficacy of the new Australian ladybugs (*Orcus Chalybeus*, *O. Australiasæ*, and *Leis Conformies*), in feeding upon the injurious insects affecting citrus and deciduous fruit orchards. The growers have been given to understand that this group of predaceous insects would prove as effectual in keeping the red scale of the orange and woolly aphis of the apple and peach in subjection as the *Vedalia Cardinalis* did with the white cottony cushion scale. Since these new parasites have been "planted" in our orchards, now some six months, it is interesting to know just what they have accomplished. Yesterday Horticultural Commissioner John Scott of Los Angeles county, Prof. D. W. Coquillette of the Department of Agriculture (Division of Entomology), a number of prominent orchardists and a coterie of newspaper, men made a tour of all orchards in which these parasites had been put, and made minute and critical observations of their movements.

The first place visited was the orange grove of Albert Kercheval on Lemon street. Here were found all conditions calculated to be favorable to the ladybirds. The orchard is well protected, and the supply of red and yellow scale ample to support great numbers of the parasites. What are the facts and actual results in the case? On Nov. 28, 1891, Prof. Coquillette had constructed a tent over an orange tree badly infested with scale, in which, between that date and January 23, he liberated 82 beetles. On the latter day, in addition to this number, he liberated 325 beetles in the open orchard, eight on February 20th and 27 on April 15th, in all 442 beetles of *Orcus Chalybeus*. And what is the result? Simply this: The bugs have not multiplied at all; indeed, of the entire 442 it was with difficulty that a dozen of the beetles were to be found, while but few of the eggs and larvæ were to be seen.

The parasite of the woolly aphis (*Leis Conformies*) to the number of 170 were liberated in the apple orchard of Samuel McKinley on May 14th, but a careful inspection failed to reveal a single specimen.

The next orchard visited was that of William Niles, on Washington street, where 540 of the ladybirds were liberated on May 14th. Here the conditions for their breeding are exceptionally favorable; the orchard is well protected frem prevailing winds, while the trees are quite badly infested with yellow, red and black scale. On the tree on which they were liberated only a few beetles were to be found; there was no evidence that they had multiplied at all.

Similar results were observed at other points, and the consensus of opinion among the investigators was, that as effectual parasites of the red-scale and woolly-aphis our new Australian ladybirds have proven a failure.

Allowing for the fact that, in six month's time, the *Vedalia Cardinalis*—of blessed memory—had practically cleaned out the white-scale in whole sections and that it had multiplied until there were literally millions throughout the orange-growing sections, it would certainly seem that the failure of the new bugs to breed was not the result of improper care. Possibly the climate is at fault, but allowing again for the fact that the Australian climate closely resembles this, that can hardly be the cause. Orchardists who are most familiar with the subject have no faith in the bugs as effectual parasites, and place no hope of their ever proving effectual. The horticultural authorities think it is to be regretted that so much has been printed in relation to their wonderful cannibalism, which actual experience has taught is at variance with the facts.

ONE HUNDRED AND TWENTY THOUSAND acres of land will be sold next month in Michigan, and the proceeds will go to the college fund.

CALIFORNIA THE PEERLESS.

A Glance at the Conditions of Her Rural Industries.

PRODIGIOUS DEVELOPMENT OF THE FRUIT INTEREST.

STEADY GROWTH OF DAIRYING AND MISCELLANEOUS AGRICULTURE.

Review of the Situation as to Grain-Growing, Horticulture, Viticulture, Hay Production, General Gardening, Etc., with Statistics Showing the Present in Relationship with the Past.

An Attempt at Applied Literature.*

There are more things in heaven and earth, Horatio,
Than are dreamt of in your philosophy.
—*Hamlet.*

There is a land, of every land the pride,
Beloved by Heaven o'er all the World beside.
—*James Montgomery.*

The name California has always shone in the eyes of the world with peculiar luster. The first mention of it to many ears was coupled with a promise to satisfy the most absorbing desire of mankind. A land of gold; not a grain of gold at the bottom of a crucible of toil and self-denial, but gold in stones, in running brooks, in everything. Even dreams of gold have led mankind through vales of poetry, across border lands of romance and out upon fields of conquest. California gave not a dream but a reality, and at less price than the race has paid for dreams. Ophir and El Dorado were plucked from the haze of fable and located upon the map of California. Out of obscurity profound the land became immediately famous throughout the world. From every sea came the Argonauts. Their deeds and experiences were of absorbing interest everywhere. The results of their venture and enterprise were unique and varied, and wide-reaching too, for in exalting their own fortunes they depressed the standard of values of a world.

The glamour of the gold days gave California world-wide fame. The announcement of other unique and grand possessions soon added to her repute. No region of the earth has ever been so kindly thought of or so earnestly yearned for. None has ever answered so fully the greatest anticipations. None has been able in four decades to develop four distinct lines of wealth, each seeming greater than its predecessor, and to retain them all in its fifth decade as cofactors in its prosperity. Gold, animal products, wheat, fruit—each in turn has made California great in the eyes of the world. Such a land is the pride of the world; a land thus endowed is exceptionally blessed by the Creator.

Where smiling spring its earliest visit paid,
And parting summer's lingering bloom delayed.
—*Oliver Goldsmith.*

The climate of California is more precious to the Californian than his wealth. Most residents have a consciousness of this which is axiomatic. If others need proof it is found in the experience of those who have gone forth to seek greater success in more populous centers. All the world may be the place for business, but California's the place to live. The thousands who have here exchanged strength for weakness, and twisted into strong cords life threads which had well nigh broken, are also living witnesses of the boon of California residence. A year where all days, except a few of actual rainfall, are suited to outdoor work; where, except at great altitudes, the ground is never frozen nor snow-clad beyond the reach of an hour of sunshine, and even this but seldom; where all save the most tender plants are untouched of frost; where some deciduous trees become evergreen and some annuals perennial; where every month of the year has its own fruits and vegetables in the house-garden—such are some of the joys of California life. This is indeed the land where spring does not linger in the lap of winter, for a California winter is too weak to hold so buxom a lass. It is difficult to tell where California autumn ends and spring begins. The orchard fruits are still red and golden while the new grass shoots up beneath the trees, and the winter pruner regales himself upon the rich clusters of grapes which are still clinging to the vines. These fruits, too, may still be in the air while the orange, the great spring fruit, ripens for the Christmas table. The last rose of summer loses her melancholy in the company of the gorgeous chrysanthemums, and the late chrysanthemums get the first kiss from the spring roses. Surely if the poet seek a land where autumn and spring join hands to banish winter that land is California.

But this fact is not merely of sanitary and sentimental account. The length of the California growing season is the secret of the early and great productiveness of our trees, the precocity of our animals and the weight of their products. The plant has three quarters of the year for active growth. The animal gives but a minimum requirement of nutritive material for maintaining its bodily heat. The enterprising man passes no time in enforced idleness, and but little in labors which are protective and not productive. In wintry climates it takes all summer to get enough food to exist through winter, and winter is but weary watching and waiting for the springtime. The great growth and productiveness of California's animal and vegetable life is but the natural result of embracing a great opportunity.

Blossoms and fruits at once the trees adorn
With glowing blushes like the rosy morn.
—*James Thompson.*

There could hardly be a more pointed allusion to another phenomenon which attests the fostering effect of the California climate upon the life processes of the plant. Of course, the citrus fruit trees are blossom-clad and fruit-laden at the same time, a sight familiar to sojourners in semi-tropical lands, but the poet alludes to deciduous fruit growth. It is not unusual here for rosy apple bloom to appear while the apple is itself ruddying. The second and even the third setting of apples is frequently noted in the milder parts of the State. The second crop of pears is often of considerable value. The second crop of grapes furnishes the largest specimens, but for economic considerations on the part of the grower, it would usually be better for the vine to throw all its energy into one crop. The fig has a continuous succession of fruit, with two or three periods of greatest abundance. The almond often carries its somber-hued nuts among the gorgeous blossoms of the following year, and, in some localities, the pecan nut, missing the frost to sever its hold, clings to its parent tree while it dons its new suit of leaves. Many similar phenomena could be cited. The significance of them all lies in their testimony to the mildness of the clime and the length of the growing season, the industrial value of which is greater in its other manifestations. The climate of California deals very gently with unseasonable things; perhaps it invites them, but fortunately they are either of some value or of little harm. Continental climates invite activity in the plant in midwinter by a false spring and then besiege the confiding action with hail and sleet and crush it with low temperature. California is not so cruel. The kindly lady usually cherishes all confidences which she invites.

Now golden fruits on loaded branches shine,
And grateful clusters swell with floods of wine.
—*Alexander Pope.*

The orange and the grape; two great fruits of California. Together they vied in the refreshment of the devoted *padres* more than a century ago, and they were the first fruits to regale the Argonauts after their long courses by sea or plain. They were the first fruits to show commercial importance and they too won for us our first honors at distant expositions. California should always remember with gratitude the early welcome and the early encouragement which the orange and the grape bestowed upon her in pioneer days. But fortunately California is still the land of these fruits and they have multiplied and advanced in commercial importance beyond the lines of early prophets. That over 4000 carloads of oranges have been sent overland in a year, and that raisins enough to practically displace the Spanish product in the United States, have been produced in California, could hardly have been foreseen by those who first took up these lines in a business-like way about fifteen years ago. And yet these old fruits are but at the beginning of their career in California. Great areas have been found well-fitted for them, while but a short time ago a few narrow localities were held to monopolize the needed conditions. Citrus fruits, raisins, wines, table grapes, California will fill the country with them.

A soothing calm on every breeze is borne,
And softer sings the linnet from the thorn.
—*John Leyden.*

The tranquillity of California is one of her greatest charms. Thus far no great atmospheric, social or industrial disturbances have caused her hardship or mourning. There have been periods of apparent disorder, but it has been the evil doers who suffered for their crimes; there have been times of foolish ventures, but their victims were silly speculators who sought a competence without labor; there have been hardship and oppression by monopolies which thought themselves greater than the people, but the way of these transgressors is daily becoming harder. All these obstructions to progress and prosperity have existed elsewhere, but the more serious dangers of anarchy and riot and appalling disaster through natural phenomena have not threatened us.

A soothing calm is also borne upon every breeze of public opinion. There is perhaps no State in which the law is held in higher esteem. The most stirring local issues have been quietly adjusted. We have no doubt been fortunate in obtaining from the outside world the best elements which immigration carries. Distance has favored us. In early days only the fittest in strength and spirit survived the long journey. More recently the cost of transit has quarantined us from the pauper hordes which Europe has poured upon the Atlantic coast.

Our peace comes both from what we have acquired and from what we have been spared. Though we are but a small people, there is no State where the average of intelligence is higher, the provisions for education better planned or more liberal, nor where the productive industries, which enlist and repay the highest skill and research, havee produced greater value per capita of population. In short, in every way we enjoy the peace of well-requited industrial activity, and are laying the foundations for a future growth and development which we trust will be like those now present, but more abundant.

And caught the fragrance which the sundry flowers
Fed by the streams with soft, perpetual showers.
—*W. Wordsworth.*

The profusion of flowers is one of the charms of California. Nowhere, probably, is the flower-grower so richly recompensed for his care and labor, and nowhere is floral taste so richly gratified. The well-kept garden is, in fact, a perpetual delight, and the sky of California is sufficient covering for many growths which in other parts of the country are closely housed. But it is the wild flower which pleases the poet, and in her wild flowers California can rest her claim for eminence. There are few spots where "soft, perpetual showers" can be provided, but the wealth of the California flora and its marvelous adaptation to local conditions are common but very interesting facts. Judge, if you please, by the splendor of individual growths or by profusion, or by expanse of floral carpeting upon the plains or hillsides, or by the perfumes which fill the air, and the verdict, upon the testimony of disinterested travelers, will be a tribute to the grandeur, beauty and variety of this most entrancing resource of California.

The waving verdure rolls along the plain
To welcome back its playful mates again.'
—*J. G. Percival.*

Akin to the profusion of flowers, and like it a winter and spring product of the State, is the richness of the natural verdure. The gift of the early rains, its growth advanced as the penetration of moisture deepened until the mounted vacquero was forced to seek an eminence to locate his cattle in the sea of green, the billows of which he could not otherwise see over. Those were the days of great herds in the beginning of our agriculture. We doubt if greater seas of waving verdure were ever spread upon this continent than on the great valleys of California. Overpasturing and the transformation of wild fields into cultivated areas have made serious inroads upon the natural pastures, and the waving verdure which now most frequently greets the eye is that of cereal grains, alfalfa, and orchard and vineyard foliage. Never again will the pristine richness of California's wild pasture return; never again will they welcome back the immense herds and their picturesque attendants. Let the old regime rest, then, embalmed in poetry and tradition. The new regime is better. Homes, with implied civilization, prosperity and happiness, are infinitely more desirable.

By these fair plains the mountain circle screens,
And feed the streamlets from its dark ravines.
—*Oliver Wendell Holmes.*

There could hardly be a more apt allusion to the natural advantages of California valleys. By the grand mountain environment on the east and north, the rush of winds from northern latitudes toward the tropics is averted from a great portion of the area of California. In this way are not only great atmospheric disturbances precluded, but the general temperature is raised and we are rescued from such a winter as visit other regions on the same parallels of latitude. This, coupled with the warm currents of air and water which move the gentle ocean on our western border, gives us our climate so grateful to plant and animal life. Through such agencies the lightest habitation, of which the genial climate invites construction, is safe from destroying blasts because there are none, and by its very elasticity laughs at the earthquake. Of late years, too, even the Atlantic coast has surpassed us in earthquake phenomena. Grand, too, is the service which our mountain screen renders in making captive the atmospheric moisture and storing it upon snow-capped peaks and in deep canyons until the summer sun releases it to fill the water courses which refresh the foothill and valley lands below. It has been frequently shown that California has running water

*The arrangement of the poet's lines in a tribute to California is credited to Mr John Wallace.

enough to render fruitful all her valley lands over which rain clouds are scant and fleeting. The triumph of irrigation enterprises is the secret of much of our recent horticultural advancement, and future progress must largely proceed upon the same basis. California has learned lessons in this line which will not only multiply her own prosperity, but point out the way to expunge the "Great American Desert" from the map of the United States. California's achievements in the development, storage and distribution of irrigation waters are among her greatest deeds.

And when the moon with softer radiance gleams,
And lovelier heave the billows in her beams.
—*Robert Southey.*

The peerlessly clear air of an arid region is one of the first observations of the new comer. It is marvelous that the decrease of aqueous vapor (a material so tenuous that, like the wind, its presence is only discernible by its effects) should so increase the power of human vision that remote objects seem near at hand. Plenty are the yarns of tenderfeet who have undertaken seemingly short walks to landscape points and have returned exhausted, crying that the farther they walked the farther away the object sped. It is this clear air which gives the sunshine greater power in the perfection of our fruits, and in other services it renders vegetation. It is this clear dry air which enables mankind to withstand the upper stories of the thermometer, because dry heat does not prostrate or depress the animal organism as does a heated, moist atmosphere. For this reason sunstrokes even in an interior valley temperature of 110° and over, are almost unknown, for the heat does not render fieldwork particularly exhausting. Most of the few cases of prostration are traceable to defect or weakness, either physical or moral in the individual, rather than to the weather conditions.

The same air which gives us safety in outdoor work in a glorious sunshine also gives to the light of the moon peculiar brilliance. The moonlight landscape in the interior of California, in valley and upon mountain, is entrancing. Seas of light flooding everything, so clear and yet so soft and generous, bestowing beauties upon all objects and kindly concealing defects, it is little wonder that mankind always partial to moonlight, should go into ecstacies over the silvery nights as well as the golden days of California.

Is it not lovely?—Tell me where doth dwell,
The power that wrought so beautiful a spell!
—*Richard H. Dana.*

What power could conceive and produce so magnificent a piece of world-building save the omnipresent Creator? The power then which wrought our land dwells in it. And as California is one of the latest lands to rise from the embrace of old ocean, why should not the Creator be most partial to his newest work? Apparently the land holds the combination of the best in two zones and escapes the ills of both. It boasts the fittest natural conditions for human life and happiness. It rests with man whether so rich a heritage shall be fitly appreciated and regarded. Our people should be the most intelligent, the most moral, the most religious in the world. With each individual rests the responsibility of securing this result. Upon the free agency of the individual depends the nobility of the land.

GENERAL REVIEW.

From a pasture and mining State California forged ahead as a large wheat producer, and now it is rightfully conceded the largest fruit-growing State in this country. Not only is this position conceded, but it is supplemented by the assertion that for variety of crops the State has no equal. The long line of seacoast to the west, and a range of mountains to the east are, within themselves, large contributors to a diversified climate, while the varieties of soil, combined with the climate, offer a rare opportunity to the successful cultivation of fruit and vegetables peculiarly adapted to both the temperate and tropical zones. This was not fully demonstrated until better inland transportation facilities and cheaper and largely improved overland railroad transportation were afforded. Under the magnetic influence of railroad facilities, the waste lands of California were made to produce those varieties of crops which have given us a wonderful name at home and abroad, and, at the same time, have enriched those farmers and orchadists who, to a greater or less extent, forsook the well beaten track of experience derived elsewhere, and sought by experiment and broader scientific farming to find out what kind of crop and variety certain localities were best adapted to. That their efforts have been preeminently successful the present results fully testify. Although much has been accomplished, there can be no doubt but the future holds in store far greater results to those who not only call in science as an assistant, but also study the wants and requirements of trade as developed by and through the consumptive demand at home and abroad. The days of slipshod farming and haphazard horticulture are happily numbered with the past, and the person who does not try to attain as near perfection as it is possible to secure in his or her special line of farming will be forced to the wall. Under a strong and growing competition experiments are in constant course of preparation to improve on the product of the farm and orchard, and, therefore, only those will survive financially who give attention to the best, and as far as possible, those latest improved varieties which meet with most generous support from consumers. It is these who carve out a reputation; whose names alone inspire confidence and contribute no little in selling their produce at the highest market prices. There is not a day which passes but what this assertion is fully confirmed. We have known buyers to take fruit, vegetables or cereals, as the case may be, without examining, and pay the highest market prices on the reputation the producer has for cultivating the best products and also for straightforward, honest methods in marketing the same.

Wheat.

In the production of wheat, California has not made great progress within the past decade. The acreage devoted to wheat does not show material change, while the outturn to the acre in the older-settled counties is disappointingly small. This condition should inspire farmers in these particular counties to ferret out the whys and wherefores for the falling off in the yield. The acreage devoted to wheat this year compares as follows with the three preceding:

COUNTIES.	1889	1890.	1891.	1892.
	Acres.	Acres.	Acres.	Acres.
Alameda	21,265	16,429	30,685	35,785
Alpine	450	400	400	350
Amador	4,560	3,575	3,800	*4,000
Butte	92,208	73,767	91,117	*96,000
Calaveras	8,500	6,500	6,500	5,400
Colusa	403 008	386 477	208,128	*210 000
Contra Costa	77,915	50,250	44 502	43,365
Del Norte	60	36	.....	19
El Dorado	2 597	973	4,134	4,700
Fresno	169,512	196 904	295,150	324,000
Glenn	.....	.....	150,425	185,000
Humboldt	20,564	1,526	2,517	2,010
Inyo	399	2,316	1,379	1,797
Kern	12,000	17,000	20,000	23,000
Lake	6,220	4,200	7,950	6 650
Los Angeles	50,760	75,150	63,242	48,765
Marin	348	.....	644	543
Mariposa	639	527	459	408
Merced	240 000	177,500	230,500	*230,000
Modoc	45,800	35,200	43,500	32,200
Monterey	120,000	135,000	145,000	130,000
Napa	8 653	7,462	8,385	*7,500
Placer	16,249	11 147	16,037	16,120
Sacramento	78 100	55,000	81,150	*80,000
San Benito	46,600	35,800	51,202	*50,000
San Bernardino	3,551	4 651	4,302	*4 500
San Diego	14,026	25,145	26,038	24,476
San Joaquin	290,805	199,579	301,150	275,018
San Luis Obispo	98,385	95 617	101,650	125,750
San Mateo	1,825	1,500	2,000	2,000
Santa Barbara	71,427	54,720	55,725	38,240
Santa Clara	17,249	15,950	16 300	15,312
Santa Cruz	5,126	5,248	5 517	5,312
Shasta	14,061	2,154	13,620	16,400
Sierra	151	300	260	350
Siskiyou	9,554	13,125	16 215	*18,000
Solano	57,624	48,210	83 616	83,866
Sonoma	15,820	12,250	13 460	*12,000
Stanislaus	283,182	211,342	291,431	260,339
Sutter	123,920	43,412	66,414	78,889
Tehama	91,410	82 312	83,678	60,841
Trinity	10,005	100	1,200	1,500
Tulare	349,000	350,885	415,585	358,000
Tuolumne	4,000	3,500	3 600	3,900
Ventura	2,637	3,671	5 810	*6000
Yolo	155,000	103,500	149,243	198,043
Yuba	28,375	15,760	30,000	21 247
Totals	3,073,527	2,586,950	3,190,716	3,147,245

*Estimated.

According to our returns, based largely on thrashers' returns, the yield averages this year about nine centals to the acre. This is corroborated by the U. S. Department of Agriculture. The total yield of the State is placed at about 1,300,000 tons this year against nearly 1,200,000 tons in 1891. This places the State second in the rank of wheat-producers, as the following estimated acreage and prospective yield, as returned by the U. S. Agricultural Department, in the different States shows. (A comparison of the estimated yield this year is made with the outturn in 1891, so as to better judge the present situation.)

STATES.	1892.		1891.
WINTER.	Est'mat'd Acreage.	Estimated Yield, bu.	Yield, Bushels.
Ohio	2,715,800	34,984,000	45,531,000
Michigan	1,590,600	22,268,000	30,205,000
Indiana	2,888,300	37,2[illegible]9,000	52,8[illegible]7,000
Illinois	1,906,900	27,459,000	35,125,000
Missouri	1,645,100	23,492,000	25,732,000
Kansas	3,409,000	56,822,000	54,86[illegible],000
Kentucky	1,048,200	11,635,000	13,181,000
Tennessee	1,22[illegible],500	9,78[illegible],000	11,626,000
Connecticut	1,800	27,000	31,000
New York	626,900	10,044,000	10,683,000
New Jersey	138,800	1,885,000	2,124,000
Pennsylvania	1,324,500	17,053,000	20,864,000
Delaware	100,500	1,182,000	1 250,000
Maryland	535,100	6,891,000	8,107,000
Virginia	841,000	7,490,000	7,651,000
North Carolina	775,500	6,017,000	4,975,000
South Carolina	198 400	1,57[illegible],000	992,000
Georgia	341,400	2,297,000	2,3[illegible]3,000
Alabama	292 500	1,801,00	2,251 000
Mississippi	63,200	537,000	483,000
Texas	573,800	6,197,000	6,435,000
Arkansas	239 800	2,254,000	2,236,000
West Virginia	332,300	3,199,000	3 423 000
California	3,012,000	42,168,000	36,595,000
Oregon	690,000	11,061,000	13,149,000
Total	26,564,000	345,333,000	392,495,000
SPRING.			
Minnesota	3,206,800	39,059,000	55,332,000
Wisconsin	895,000	10,560,000	14,043,000
Iowa	1,730,900	21,082,000	27,586,000
Nebraska	1,299,700	15,916,000	18,080,000
North Dakota	2,488,200	29,61[illegible],000	52,105,000
South Dakota	2,30[illegible],700	30,942,000	29 714,000
Colorado	112,000	2,464,000	2,037,000
Washington	788,800	10,781,000	12,216,000
Nevada	2[illegible],300	340,000	372,000
Idaho	91 400	1 598,000	1,811,000
Montana	97,400	1,721,000	1,856 000
Wyoming	3,800	90,000	110,000
New Mexico	94,200	1,319,000	1,037,000
Utah	142,200	2,858,000	2,393,000
Arizona	27,800	440,000	39[illegible],000
Maine	41,000	636 000	669,000
New Hampshire	8 800	132, 000	148,000
Vermont	19,400	330,000	344,000
Total	13,369,100	169,668,000	219,[illegible]85,000
Grand total	39,933,100	515,004,000	611,78[illegible],000

While the outturn in this State is larger this year than it was in 1891, that of Nevada, Oregon and Washington is smaller. Taking the total crop of the United States at the U. S. Agricultural Department estimate of 515,000,000 bushels, and it is a full average; but then later estimates of recognized authorities at the East placed the aggregate outturn on August 20th at about 495,000,000 bushels.

So that our readers can better estimate, as crop returns come to hand, the wheat crop this year in comparison with the yield the three preceding years, we give the following tabulated statement in bushels:

	1891.	1890.	1889.
North America:			
United States*	611,780,000	399,262,000	490,560,000
Canada:			
Ontario*	33,611,074	25,262,000	19 288,983
Manitoba*	23,922,598	14,000,000	11,928,511
Total	669,313,672	438,493,412	521,777,494
South America:			
Argentine Republic	33,069,030	41,703,683	11,350,000
Chili	14,187,500	18,567,360	12,768,750
Total	4[illegible],256,500	60,271,043	24,118,750
Europe:			
Austria	41,143,75	51,440,667	42,000,000
Hungary*	126,278,750	168,345,000	94,020,333
Belgium	14 187,500	19,573,075	19,000,000
Denmark	3,713,472	5,776,512	5,000,000
France*	232,360,236	338,902,124	315,265,562
Germany*	126,253,563	91,899,840	82,000,000
Great Britain*	74 400,714	75,666,617	75,876,383
Ireland*	2,615,437	2,639,399	1,586,238
Greece	5,675,000	12,378,240	5,000,000
Italy*	126,254,463	126 610,748	103,832,354
Netherlands	3,713,472	6,189,120	5,675,000
Portugal	8,252,160	8,252,160	8,512,500
Roumania	53,073,684	63,954,240	44,784,853
Russia*	169,108,708	197,739,200	188,535,989
Poland*	12,68[illegible],920	22,343,125	
Servia	7,945,000	10,315,200	5,000,000
Spain	71,349,094	70,143,360	75,622,213
Sweden*	4,551,35	3,956,043	3,708,045
Norway	412,698	412,608	283,750
Switzerland*	4,041,766	2,475,648	2,270,000
Turkey	33,008,640	37, 35,720	39,725,000
Total	1,121,558,740	1,316,177,644	1,119,495,627
Asia:			
India*	255,434,667	235,345,600	243,976,549
Asia Minor	37,699,375	37,134,720	36,887,500
Persia	20,653,400	22 693,440	22,500,000
Syria	12,343,125	12,378,240	12,768,750
Total	325,437,567	307,552,000	316,232,799
Africa:			
Algeria	21,281,250	22,693,440	22,500,000
Cape Colony	4,126,081	3,713,472	3,800,000
Egypt	11,140,416	8,252,160	7,945,000
Tunis	4,256,250	4,256,250	
Total	40,803,996	38,915,322	34,245,000
Australasia*	33,874,606	42,480,131	26,205,957
Grand Total	2,238,245,081	2,203,889,552	2,041,075,627

* Official.

The latest returns from the leading grain-growing countries indicate that the crop this year will be about 90,000,000 bushels less than it was last year. The crop of rye will be larger in this year than it was in 1891, but the crop of corn, and also of oats, will be less, while that of barley will be about the same.

In California several varieties of wheat are grown. This is necessitated by the diversity of our climate and soil. In that part of the State subjected to hot north winds, the Chili club is given most attention, owing to its being a close fitter, which prevents it from shelling out so badly as do other varieties.

But the market price of the club generally ranges at from 1¼ to 2½ cents per cental below that of Australian, Proper and similar kinds. The Australian variety of white wheat is held in highest favor by shippers and millers, and therefore is largely grown. Next to Australian comes the Proper. Sonora wheat is grown chiefly on light soil, where a speedy growth and comparatively well-matured grain is wanted. For roll wheat and for shipping to France, the Sonora, it is claimed, is given preference, but in England and in this State the Australian and Proper are preferred. The French want a wheat which, when made into flour, will make the largest number of loaves of bread.

On the coast the wheat chiefly wanted is a fog and rust-resister, and the Odessa varieties are therefore given preference by many. It is claimed by dealers in this city that the wheat marketed here is becoming each year more foul, but so far as the writer's observation extends, this claim is largely exaggerated, for the degree of foulness in wheat depends largely if not entirely on the season.

PRICE OF NO. 1 WHITE WHEAT IN THE SAN FRANCISCO MARKET FOR 27 YEARS FROM JUNE, 1864, TO JULY 1, 1892.

Year.	Highest.	Lowest.	Difference.	Average.
1864–65	$5.30	$2 30	$3.00	$4.15
1865–66	2.15	1.60	.45	1.97
1866–67	2.22	1.25	.97	1.76
1867–68	3.10	1.50	1.60	2.31
1868–69	2.50	1.17½	1.32½	1.71
1869–70	1.85	1.0[illegible]	.90	1.70
1870–71	3.15	1.55	1.60	2.25
1871–72	2.85	1.52½	1.32½	2.29
1872–73	2.16	1.25	.91	1.95
1873–74	2.37½	1.60	.77½	2.02
1874–75	1.85	1.30	.55	1.60
1875–76	2.32½	1.65	.67½	1.96
1876–77	3.00	1.45	1.55	1.93
1877–78	2.45	1.82½	.62½	2.10
1878–79	1.77½	1.57½	.20	1.64
1879–80	2.15	1.45	.70	1.81
1880–81	1.57½	1.25	.32½	1.40
1881–82	1.75	1.30	.45	1.62
1882–83	2.05	1.60	.45	1.73½
1883–84	1.87½	1.42½	.45	1.64½
1884–85	1.50	1.1[illegible]½	.35	1.32½
1885–86	1.50	1.25	.25	1.36
1886–87	2.10	1.22½	.87½	1.52
1887–88	*2.12½	*1.22½	.90	1.37½
1888–89	1.63¾	1.25	.38¾	1.43
1889–90	1.36¼	1.25	.1[illegible]	1.29½
1890–91	1.76¼	1 31½	.45	1.53½
1891–92	1.82½	1.35	.47½	1.6[illegible]½

*Wheat collapse

Barley.

The acreage seeded to barley the past four years in California compares as follows :

COUNTIES.	1889.	1890.	1891.	1892.
	Acres.	Acres.	Acres	Acres.
Alameda	20,967	20,415	63,432	67,932
Alpine	460	400	400	50
Amador	12,515	10,980	1 ,000	*12,000
Butte	24 619	19,721	25 800	*26,000
Calaveras	1,100	250	3,000	3,300
Colusa	48,683	23,0 2	26,925	*26,000
Contra Costa	42,270	30,540	28,400	27,375
Del Norte	300	164	320	43
El Dorado	2,002	560	1,506	1,640
Fresno	36,242	34,471	40,250	*40,000
Glenn	.....	.....	12,56	29,109
Humboldt	19,450	1,513	2,069	1,970
Inyo	571	455	397	444
Kern	25,000	3,000	4,500	*4,505
Lake	3,870	2,600	3 100	4 025
Los Angeles	35,290	34,170	38,124	36,203
Marin	417	.....	225	257
Mariposa	5,078	1,802	1,6 2	4,080
Merced	52,000	25,000	36,650	36,000
Modoc	33,000	32 100	31,600	30,300
Monterey	75,000	60,000	80 000	75,000
Napa	5,847	6,374	5,985	*6,000
Nevada	587	.....	.....	150
Orange	.....	19,760	50,000	30 000
Placer	9 670	1,718	10,368	11,662
Sacramento	38,460	26,725	34,215	*34,000
San Benito	16,915	13,680	15,140	*15,000
San Bernardino	103,58	93,450	91,260	*91,000
San Diego	30,447	27,350	41,086	48 719
San Joaquin	108,920	53,049	58,120	74,142
San Luis Obispo	48,360	51,429	75,360	89,000
San Mateo	3,720	3,000	3,500	.....
Santa Barbara	38 149	32,865	38,840	31,690
Santa Clara	20,370	18,550	17,820	16,195
Santa Cruz	3,110	3,226	3,292	2,117
Shasta	6,215	545	7,116	8 9 0
Sierra	1,850	1,600	4,000	3,000
Siskiyou	5,360	2,588	4,065	4,000
Solano	35,720	22,510	31,059	31,359
Sonoma	13,159	.....	8,352	*8 000
Stanislaus	33,149	28 150	33,163	35,163
Sutter	21,840	4,899	14,174	19,887
Tehama	27,840	21,760	16,659	15,594
Trinity	200	200	200	160
Tulare	63,425	65,346	71,250	75,000
Tuolumne	2,000	1,800	1,500	2,000
Ventura	58,738	33,625	45,150	*45,000
Yolo	20,000	12,700	13,550	17,890
Yuba	11,060	4,850	8,500	8,414
Totals	1,167,627	852,902	1,118,867	1,257 710

*Estimated—returns not in.

The small acreage seeded in 1890 was due to unfavorable weather for seeding, and also to the very low range of values in 1888, 1889 and a part of 1890 having discouraged farmers. The price at one time fell to very near 50 cents per cental, which caused the unloading of large quantities on which advances had been made. With the cleaning up of all old stocks, a light crop in 1890 and a large increase in the consumption, the market improved, and during the season of 1890–91 much higher prices were realized, which induced more attention to be given to its cultivation. The consumption of feed in this State has made a steady gain the past five years under increasing attention given to fruit culture and also to dairying, so that, while the quantity fed out in the large cities has, owing to the more general introduction of cable and electric streetcars barely held its own, that fed out in the country has been on a large and steadily increasing scale. Up to within four years it was estimated that for every sack of barley received in San Francisco and neighboring cities, fully five were consumed in the remainder of the State, but now the ratio is fully 8½ sacks in the remainder of the State to one received here, and this ratio promises to steadily increase in the future. The consumption of malting barley does not show any material increase; probably 20 per cent more will cover it. The market for bright grades of brewing barley is sought at the East and abroad, with England taking all the choice to gilt-edged Chevalier. Chevalier barley, taken at good round prices, is cultivated largely, and we might say almost entirely in Livermore valley, Alameda county, where there is a deep, rich soil and warm weather, with an absence of fog. Chevalier is successfully grown in a few other favored valleys. In the coast counties the yield is large, but it is seldom that the grain is bright colored, owing to the prevalence of fog. In growing barley for market, it is essential to secure plump and bright-colored grain to get the best results. With bright-colored, plump grain weighing from 48 pounds and up, there is always active buying competition, and the highest market prices are assured, with quick sales; but for off-colored grain the buying is confined largely to feeders, and they never, except when there is a scarcity, run prices up through competition. With the mills turning out roll barley, the consumption of dark-colored barley and other feed barley has increased at a most remarkable rate. It is taken more largely than is either the whole grain or ground barley by farmers, orchardists and dairymen, owing to its giving much better satisfaction

The exports from this port aggregate in centals as follows by months :

Months.	1889. By Sea.	1889. By Rail.	1890. By Sea	1890. By Rail	1891. By *Sea	1892. By *Sea.
January	28,805	20,939	33,319	10 960	31,634	10,646
February	33,918	10,833	11,659	1,684	14 751	16 972
March	13 812	2,873	18,023	308	13,006	108,678
April	14,109	4,004	19,916	.....	32,147	93,170
May	18,319	.....	17,006	.....	23,898	12 317
June	20,572	3.374	15,108	.....	10,179	26,871
July	41,585	17,335	27,735	.....	137,319	79,242
August	125,993	7,127	40,523	.....	23,667	141,573
September	234,880	26,077	18,516	.....	160,997	.
October	201,628	51 600	96,301	.....	271,767	.....
November	83,978	14.739	18,035	.....	146,664	.....
December	15,244	4,675	23,034	.....	70,764	.....
Totals	832,843	162,876	339.174	12,952	936,798	.....

* No coastwise shipments.

Low freights to the Atlantic ports, a shortage in the crops at the East and only a fair crop abroad are favorable to heavy shipments from here in this season. The crop in Oregon and Washington is short, while the crop in California is larger than in any year for four years past.

Corn.

The acreage seeded to corn the past four years compares as follows:

COUNTIES.	1889.	1890.	1891.	1892.
Alameda	318	300	280	310
Alpine	25	25	30	35
Amador	650	675	700	720
Butte	.....	.....	.....	10
Calaveras	210	250	210	190
Colusa	512	242	250	315
Contra Costa	1,900	1,800	1,700	1,800
Del Norte	110	71	100	90
El Dorado	.....	.....	.....	.....
Fresno	570	215	3 0	610
Glenn	.....	.....	.....	.....
Humboldt	200	157	200	150
Inyo	1,100	1,46	1,500	1,050
Kern	12,00	10 000	11,000	10,520
Lake	360	600	610	380
Los Angeles	17 400	12,700	11,200	10 500
Marin	.....	.....	.....	.....
Mariposa	.....	.....	.....	.....
Merced	1,500	1,200	1,200	1,450
Modoc	.....	.....	.....	.....
Monterey	1,600	2,000	1,900	1 590
Napa	1,168	1,275	1,180	1,260
Orange	.....	5 625	6,000	5,570
Placer	.....	.....	.....	.....
Sacramento	5,375	5,490	5,360	5,170
San Benito	25	75	100	80
San Bernardino	893	941	910	1,000
San Diego	2 084	2 473	2,500	2,180
San Joaquin	915	413	750	850
San Luis Obispo	76	750	680	620
San Mateo	530	600	500	530
Santa Barbara	1,268	1,324	1 120	1,220
Santa Clara	185	328	280	190
Santa Cruz	2,025	2,040	2,100	2,120
Shasta	18	.....	25	20
Sierra	.....	.....	10	15
Siskiyou	270	30	220	290
Solano	670	710	650	680
Sonoma	11,317	10,000	10,500	11,410
Stanislaus	127	90	120	140
Sutter	765	106	510	620
Tehama	49	40	50	60
Trinity	500	100	200	410
Tulare	1,620	2,000	2 150	2,020
Tuolumne	.....	.....	.....	.....
Ventura	5,843	7,301	7,100	5,900
Yolo	800	600	6 0	750
Yuba	65	6	65	70
Totals	75,382	73,452	75,015	72,935

California cannot, in any sense, be called a corn-growing State, owing to but few localities being adapted to its cultivation, and even that which is grown is of indifferent quality. Col. Cutter, president of the Cutting Packing Co., says that his company has tried, time and again, to find corn suitable for canning, but was not successful. For milling, the corn is not so well adapted as is that grown in the corn belt at the East. This is due to the grain being softer and not generally so sweet. In being soft, it requires kiln-drying before grinding. The past two years California found a good market in Mexico and the central States—owing to short crops—for the surplus crop, but this year heavy rains have fallen in Mexico and good crops are assured, so that outlet will be cut off; besides this, Texas has an exceedingly large crop which is now being marketed at low figures. The crop in the corn-growing belt in the central States is short, but yet it is sufficiently large to supply the home demand and thus give a fair amount for export. The corn preferred for home use is generally the yellow, but for export the white is given preference.

Oats.

The acreage seeded to oats compares as follows:

COUNTIES.	1889.	1890	1891.	1892.
Alameda	175	210	196	220
Alpine	630	650	600	710
Amador	75	50	150	110
Colusa	215	66	143	120
Contra Costa	.....	1,600	1,600	1,550
Del Norte	1,500	9 7	900	1 200
El Dorado	.....	2 4	109	910
Fresno	526	81	460	515
Glenn	.....	.....	.....	150
Humboldt	25,792	3,749	13,260	19,870
Inyo	681	836	841	980
Lake	720	450	890	785
Los Angeles	.....	.....	2,232	2,310
Marin	522	320	814	700
Mariposa	634	.....	.....	510
Merced	.....	7,500	8,350	6,100
Modoc	3,840	11,350	12,060	13,000
Mono	.....	24	.....	26
Monterey	7,500	6,000	5,000	7,000
Napa	1,976	1,645	1,865	1,800
Nevada	1 235	....	1,050	1,300
Orange	.....	100	.....	160
Placer	2,865	1,715	1,930	2 200
Sacramento	415	215	510	600
San Benito	510	50	440	475
San Diego	1,550	1,582	2,109	1,600
San Joaquin	417	309	810	750
San Luis Obispo	4 246	4,341	5,200	5,500
San Mateo	2,916	1 900	2,500	2,600
Santa Clara	115	174	14	150
Santa Cruz	4,920	5 060	4,700	5,100
Shasta	1,121	409	930	1,050
Sierra	1,000	1,200	1 008	1,100
Siskiyou	3,646	1 706	2,455	3,500
Solano	191	.....	.....	100
Sonoma	4,728	.....	4,327	4 200
Stanislaus	425	343	261	510
Sutter	368	380	886	600
Tehama	3,300	2,350	2,612	3,000
Trinity	500	500	350	550
Tulare	375	560	750	700
Tuolumne	800	700	750	800
Ventura	.....	93	110	100
Yuba	1,271	805	3,000	1,300
Totals	115,601	60,197	96,620	95 806

Only about one-quarter of the oats grown in California can be classed choice to gilt-edged, the remainder being poor to good and more or less foul. We have to look to Oregon to supply the bulk of our requirements, which are steadily increasing owing to more being fed to family and speed horses. The receipts of oats at this port in last year aggregated 111,699 centals of California, while from Oregon and Washington we drew 470,935 centals. Surprise oats have a well-deserved high reputation and command considerably higher prices than do other kinds. The oats grown in this State are not as well adapted for milling purposes as are those grown in the Central States This, it is claimed, is due to the humidity of the air, which necessitates the most, if not all, being kiln-dried before use. The outlook for the market the present season favors the expectation that fairly high prices will obtain. This opinion is based on only an average crop in this State and a shortage in Oregon and Washington, while the demand will be fully up to and perhaps larger than it was in the last season. The crop in the Central States is considerably below an average, while the grade is not up to the usual standard.

Rye.

We are not able to secure the acreage seeded to rye. Probably the small attention given to the industry caused county assessors to overlook it, but if we should continue to enjoy a fair export trade the industry will become quite important. The short crop last year in Europe caused free buying in our market, which ran up prices fully 20 to 30 per cent; but this season the European crop is nearly an average, and therefore the export demand will be light and only low prices will induce free buying. The consumption in this State is steadily enlarging, owing to increasing population of that class of foreigners who give it preference.

Hay.

With more attention to fruit culture, comes a larger demand for hay, owing to the large increase in the number of workhorses used by orchardists. A few years ago it was claimed by those in position to know that for every ton of hay fed out in this city, Oakland and Alameda, fully three tons were fed in the remainder of the State. Now it is estimated that for each ton fed out in the above-named cities, at least seven tons are fed out in the rest of the State. In this estimate, no reckoning is made of pasture-feeding, only of hay that is cut and cured. A fair idea of the importance of the hay industry can be had by studying the returns by counties of the acreage devoted to it the past two years.

COUNTIES.	1891	1892.
	Acres.	Acres
Alameda	92,344	95,150
Alpine	250	310
Amador	7,000	7,150
Butte	11,000	9 500
Calaveras	9,500	10,100
Colusa	3,696	2,200
Contra Costa	48,400	49,200
Del Norte	135	260
El Dorado	4,927	5,210
Glenn	.....	2,100
Humboldt	25,257	26,180
Inyo	6,272	7,150
Los Angeles	13 300	10,800
Marin	10,120	9,100
Mariposa	6,330	5,850
Merced	11,300	10 150
Modoc	107,000	110,110
Monterey	20,000	18,000
Napa	16,765	15,500
Nevada	4,289	4,150
Placer	9,845	9,910
San Bernardino	33,205	35,000
San Diego	18 762	15,700
San Luis Obispo	36,62	30,250
San Mateo	10,500	11,100
Santa Barbara	13,500	12 250
Santa Clara	35,178	33 470
Santa Cruz	5 286	5,500
Shasta	11 496	12,100
Siskiyou	52 686	53,500
Sonoma	8,470	9 100
Stanislaus	1,500	1,470
Sutter	4,555	3,800
Tehama	15,466	16 100
Trinity	3,500	4,500
Yolo	11,500	9 500
Yuba	10,000	9,100
Totals	680 851	662 210

The remaining counties, from which no returns were received, it is estimated brought the acreage up to fully 800,000 acres in 1891, and 750,000 acres in 1892. There was a large falling off this year in the acreage of wheat, which is usually cut for hay; there was also less oat-hay cut, but there was a full average of barley. The amount of alfalfa seed sold the past winter is about 30 per cent more than ever before, and that of clover about 20 per cent greater. The increased acreage seeded to alfalfa and clover is due largely to more attention given to dairying, owing to creameries growing into favor. Alfalfa is also growing in favor for hog-feeding.

From George Morrow and other large handlers of hay in this city, we learn that the principal demand is for wheat-hay, which is chiefly fed out to work-animals and private teams. The next in demand is oat-hay, which is principally fed out by owners of driving-horses, roadsters and fast-horses. Chevalier barley-hay is growing in favor, and bids fair to soon take rank with that of wheat-hay. Bald-barley hay is considered very choice for feeding, but it is hard to raise, owing to very few localities being adapted to its cultivation. Timothy-hay is unsalable. Of clover-hay, the blue and red-tops are favorites with dairymen, with burr-clover hay a good second. Alfalfa-hay is used quite largely by dairymen in cold weather. Many of them claim that

in warm weather the milk from cows feeding on it has an unpleasant flavor. Considerable stock-hay is fed out here by butchers and stockmen. Experienced horsemen in this city claim that wheat and wild-oat hay is the best all-around feed for horses. They claim that new wheat-hay is too laxative and when it is old it is too binding, both of which are neutralized by wild oats.

Dealers in hay claim that the best prices are obtained for hay when it is cut just as the milk begins to harden, and after being cut and properly cured, then stacked, and in stacking slightly sprinkled with salt. The salt is said to sweeten the hay and make it more palatable. The hay, they claim, should remain in the stack a certain length of time before baling, the length of time being due to the kind of hay, when cut, and also the locality where grown.

The receipts of hay at San Francisco in 1891 aggregate 43,694 tons the first six months and 78,853 the last half of the year, making a total of 122,547 tons for the year. This includes all kinds, for it is nearly impossible to segregate the varieties. Nevada farmers sent large quantities into this State in 1891. This was due to heavy losses of stock by the hard winter of 1889–90, and the hay crop being largely in excess of the home requirements. They were also able to market their hay in this State owing to the railroad giving them special freight rates, and also to the high prices that ruled for hay throughout California.

Fruit.

The number of deciduous and citrus fruit trees in this State is as follows:

COUNTIES.	Fruit Trees	Oranges.	Lemons.
Alameda	1,746,530	2,599	1,147
Alpine	58,510	.....	.....
Amador	1,500	116	52
Butte	120,250	119,012	1,762
Calaveras	770,000	230	218
Colusa	.....	6,923	50
Contra Costa	171,065	398	258
Del Norte	264,770	.....	.....
El Dorado	1,821	284	295
Fresno	148,958	5,941	1,380
Humboldt	265,141		.....
Inyo	109,705	.....	.....
Kern	40,308	1,277	640
Lake	215,000	361	.....
Los Angeles	6[illegible],008	987,102	76,927
Marin	57,600	248	16
Mariposa	45,050	173	133
Merced	163,700	950	635
Modoc	150,460	.....	.....
Monterey	30,500	221	14
Napa	675,845	1,375	63
Nevada	213,870	300	.....
Orange	351,696	141,029	25,066
Placer	684,715	11,535	1,895
Sacramento	581,370	13,610	1,142
San Bernardino	2,319,847	2,286,200	18,000
San Diego	1,062,745	204,026	65,921
San Joaquin	305,711	2,752	87
San Luis Obispo	83,720	5,800	2,550
San Mateo	40,000	470	50
Santa Barbara	41,260	44,200	13,150
Santa Clara	2,024,008	1,335	331
Santa Cruz	307,195	216	128
Shasta	169,309	.....	.....
Sierra	8,591	199	44
Siskiyou	45,290	.....	.....
Solano	1,032,565	3,417	404
Sonoma	1,346,345	3,185	1,095
Stanislaus	51,098	17,796	568
Sutter	239,240	3,497	152
Tehama	413,495	1,246	218
Trinity	10,000	.....	.....
Tulare	461,051	3,330	1,885
Tuolumne	16,350	.....	.....
Ventura	347,573	63,700	36,727
Yolo	275,000	1,341	523
Yuba	120,000	21,159	327
Totals	17,649,765	3,958,350	416,467

The fruit industry is *the* industry in this State, for no longer does grain appear to hold the scepter. The following table of overland shipments shows at a glance its rapid growth:

SHIPPED OVERLAND BY S. P. R. R. CO.

Stations.	Dried Fruit.		Deciduous Fruit.		Citrus Fruit		Raisins.		Canned Goods.	
	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.
San Francisco	4,768,630	6,432,410	75,520	115,870	144,5[illegible]0	67,270	897,620	1,017,110	45,[illegible]30,140	19,587,390
Oakland	856,020	802,080	1,871,930	1,360,250	.....	.....	20,050	43,340	316,240	1,529,450
Sacramento	8,275,920	14,073,770	46,865,220	53,878,040	.....	.....	3,797,290	3,365,280	10,276,640	8,397,020
San Jose	13,962,210	25,498,020	12,185,020	12,785,840	.....	.....	185,440	191,240	16,654,780	11,111,030
Stockton	8,534,350	5,254,680	5,040,630	5,661,130	.....	.....	20,148,590	30,079,200	1,112,560	2,196,850
Marysville	2,131,770	4,619,520	992,510	1,958,760	28,850	20,000	546,340	394,730	3,422,660	2,276,050
Los Angeles	2,256,050	717,610	1,053,290	1,661,420	7,477,120	15,726,480	4[illegible]9,140	845,070	601,960	931,3[illegible]0
Colton	2,592,960	1,051,300	.....	.....	10,801,850	14,945,810	1,345,860	965,[illegible]40	3,106,970	1,142,340
Totals	43,377,910	58,447,390	68,084,120	77,561,310	18,444,320	30,759,560	27,370,330	36,901,310	80,121,950	47,121,450

SHIPPED OVERLAND BY THE SANTA FE SYSTEM.

All places	.....	.....	.....	.....	49,975,000	57,435,000	.....	.....	.....	.....
Los Angeles Co.	10,036,360	4,030,000	.....	.....	.....	.....	250,000	52,000	.....	.....
Orange Co.	2,400,000	806,000	.....	.....	.....	.....	25,000	52,000	.....	.....
San Bernardino Co.	8,290,000	6,396,000	.....	.....	.....	.....	11,275,000	7,332,000	.....	.....
San Diego Co.	490,971	312,000	.....	.....	.....	.....	2,200,000	2,938,000	.....	.....
Totals	21,217,271	11,544,000	.....	.....	49,975,000	57,435,000	13,750,000	10,374,000	.....	.....

While the above shows a most remarkable increase in shipments, yet outside of citrus fruit, owing to the crop being injured by frost, the overland shipments in this year will show as large a gain over those made in 1891 as the latter did over those in 1890. The increase in this year is due to the short crops of fruit at the East, the superior quality of California fruit and improved railroad facilities, brought about largely through the instrumentality of W. H. Mills. This year we are favored with better cars and quicker transit. Although there has been a marked improvement in the railroad transportation facilities for handling fruit expeditiously and with lessened percentage of loss, yet Mr. Mills, it is said, is perfecting plans to make is still more perfect. Referring to the subject, he says: The measure of the market for perishable products is the number of people to whom they can be conveyed in eatable condition. Thousands of tons go right by persons in Iowa, Kansas, Missouri and other States who would gladly have purchased it. Adjust train service and build cars, that many trains on fast time may stop everywhere and leave fruit. In a short time fifty million people will be customers and three million tons of fruit can be sold every year, if so much can be raised. Fruit-growing is to be the basic industry of California. It is just coming into use as food. The demand will increase when supply and reasonableness in price can be assured. California fruit ships better than any other. Special cars and general distribution on quick time will put California fruit ripened on trees into every family in the country and demand will grow as population grows." While the railroads appear to be doing so much to solve the transportation problem in favor of the orchardist, the latter should do his part in securing and keeping markets. This can only be done by planting the best known varieties to which his particular locality is adapted, while the cultivation should be done on scientific principle and the trees kept healthy and free from pest. The fact must be kept in view that, with each year witnessing more trees coming into bearing, the greater becomes the competition, and it will be only the best to command quick sales at remunerative prices when the markets are liberally supplied. A well-known writer on marketing fruit very truly says that fruit must not be bruised in any manner before starting on its journey, for a very small percentage of damaged fruit will destroy the appearance of the whole package and result in its being classed only as seconds or thirds instead of realizing the top market prices. The packages also need to be strong and clean, for a clean package neatly packed with good fruit that is attractive to the eye of the purchaser will always bring a shade more money than similar fruit if carelessly packed in a dirty or damaged box or crate. It is also absolutely necessary that all fruits should be of as nearly a uniform size as possible, for they keep longer and sell much better. The address of the party to whom the shipment is made should be clearly and securely marked in more than one place. The loss of an address means delay in delivery, which is ruinous to perishable goods. An illegible address also takes the time and patience of those who handle the freight, and may result in its receiving a little extra rough treatment. The contents of the package, with the name of the shipper and the station from which it is shipped should also be clearly marked on the outside. Attention to all these matters of detail occupies but little time, does not decrease the market value of the shipment, but rather tends to increase it, for the trade will soon look for shipments that are of good uniform quality, neat and attractive appearance. Fruit-growers must always carefully watch the different market quotations, judging which centers will prove the most remunerative after deducting the different rates of freight that rule to the different points. If they find that there is a glut of fruit in all markets and that shipments will barely pay the transportation and commission charges, let alone make any return to the grower for his time and labor in cultivating and picking, then it is useless to make shipments at all. An important method of utilizing surplus fruit can always be found by evaporating or drying. In drying fruit, care must be exercised as well as in other things. It must be kept clean and also be neatly packed. A farmer would not expect to pay the highest price for a dirty or damaged set of harness, and he cannot expect that consumers will pay the highest price for his product if it be in any way damaged or unattractive in appearance. It is a very grave mistake to think that all fruit must be picked and sent to market as soon as ripe. By doing this, the market is liable to be glutted so that the farmer may realize next to nothing, whereas, by drying or feeding the surplus and culls to hogs, he is sure of some return, and will even aid in strengthening the current market prices, so that there may be a paying outlet for a portion of the ripened crop. It will always be better to make sure of some return rather than risk all and get nothing. In other words, do not grasp at the shadow and miss the substance; if the market will not pay you, do not throw away your fruit by shipping it; do not stop to pick up a nickel and miss a dollar later on.

Dried Fruit.

There will be very little fruit dried east of the Rocky mountains this year, owing to short fruit crops, while abroad there will be quite a falling off in the crop of dried prunes, raisins and currants and also fewer fruits canned. The shortage in the fruit crops abroad causes the falling off in the pack. In this State there will be a large falling off in the pack of dried fruit, taking the different kinds as a whole, owing to a smaller apricot and plum crop and a large increase in the overland shipments of green fruit. The prices at which the market opened, and have since advanced, average fully 75 per cent more than the ranges at this time in 1891. It is claimed, and we think correctly so, too, that the grades will average very much better than they did last year. The fruit will average larger in size, be of finer flavor and of much better color.

Grapes.

The acreage devoted to the different kinds of grapes is as follows:

COUNTIES.	Wine.	Table.	Raisin.
Alameda	6,396	236	194
Amador	.....	.....	.....
Butte	1[illegible]1	65	604½
Calaveras	4,4	†	.....
Colusa	24	28	370½
Contra Costa	1,085	97	81½
El Dorado	1,019	370	123
Fresno	5,574	.....	43,946
Inyo	12	21	9
Kern	.....	.....	1,200
Lake	1,046	18	.....
Los Angeles	4,632	40	23
Marin	477	25	.....
Mendocino	190	14	.....
Merced	425	.....	1,421
Monterey	.....	.....	.....
Napa	18,177	52	.....
Nevada	190	30	.....
Orange	140	.....	4
Placer	354	1,431	5[illegible]0
Sacramento	3,131	1,164	335
San Benito	140	35	.....
San Bernardino	1,024	.....	2,591
San Diego	132	40	4,455
San Joaquin	900	346	.....
San Luis Obispo	437	3[illegible]	1
San Mateo	747	26	15
Santa Barbara	160	10	.....
Santa Clara	10,294	1,126	103
Santa Cruz	1,365	319	.....
Shasta	122	104	242
Solano	† 1,928	1,167	432
Sonoma	22,351	332	.....
Stanislaus	82	13	524
Sutter	38	47	285
Tehama	3,705	80	227
Tulare	70	.....	9,849
Tuolumne	.....	.....	.....
Ventura	100	23	197
Yolo	1,575	1,000	1,125
Yuba	570	123	.....
Totals	9[illegible],297	9,30[illegible]	68,837†

*Partial.
†Reported as wine grapes.

Notwithstanding that a larger number of vines came into bearing this season, the crop of grapes will be fully 20 per cent less than it was in 1891. The falling off is due to adverse weather. There will be a very large increase in dried wine grapes. It is claimed that there will be 5000 tons of dried fruit of which quantity 4000 tons are contracted at from $65 to $72.50 per ton. The pack of first-crop raisins will not be much more than were packed in 1891, while there will be very few second crop packed and no third crop. It is claimed that the pack will fall considerably below last year. The majority of the raisin-growers in the State have combined and fixed the price at which to sell, making a penalty for sales made at a less figure. It looks now as if they will get their figures. The stock of old on this coast and at the East is exhausted so that the new crop will come on a bare and hungry market, and as Europe has the cholera, besides which the crop is short, it is hardly likely that much will come from abroad. It is quite generally conceded that the consumption will be larger than ever before owing to the World's Fair. The grades will be more uniform and average higher than in 1891.

Beans.

We have not been able to get the acreage seeded to beans, but we think there will be a shortage, compared with 1891, of over 15,000 acres. The shortage we base on the general tenor of the more reliable advices regarding the acreage and also the returns of the county assessors of Ventura and Santa Barbara counties. The yield to the acre, it is said, will probably average more than it did in 1891. The new crop of beans will come on the market bare of colored and a very small supply of whites and Limas. It is claimed that there was a decided falling off in the acreage planted to Limas, owing to the low prices of the latter about planting-time. The outlook is of the most favorable character for a good market for whites and Limas, but not quite so good for colored. The crop of beans at the East and also abroad is short, which insures a good eastern demand, while lower freights to the East insures cheaper marketing. In Mexico there have been heavy rains, which insures a good crop, and therefore there will be a lighter demand from there. Drouth for about 18 months made the last crop a failure and opened up a good market for our colored beans. The suspension of duties by Mexico to September 30th, this year, admitted of sending beans there to a much better advantage. This demand, as stated above, cleaned up our market of all colored varieties.

Vegetables.

The cultivation of garden truck has become an important industry, and with improved railway facilities between local points and distribution points east of the Rocky mountains it will make rapid progress. There are many localities specially adapted to the cultivation of vegetables, several of which have been connected by rail with the demands, while others will be in due course of time. In the southern part of the State the growing of early spring vegetables for market is gaining a strong foothold, owing to improved facilities for marketing the truck in the eastern markets. In 1891 there was shipped overland 16,234,518 pounds of vegetables, 48,422,190 pounds of potatoes and 1,119,520 pounds of onions. These heavy shipments show what the industry can be pushed to under the fostering care of low freights and improved railroad facilities. Yet the grower must do his share by thorough cultivation and only marketing the more choice vegetables. It is much better to feed to the stock the poorer truck than attempt to market it.

The cultivation of onions has at all times received considerable attention, but within the past five years the outturn has been more than doubled in this State, with the quality showing a better average. The demands of shippers have made it necessary that only good onions be

grown and that the quality be of the best so as to cause the onions to stand shipment to distant points. The market price depends largely on the eastern demand. So far in this season this has been light, and in consequence our market has dragged at low prices, but as Oregon has a light crop, it looks as if better prices will rule later on. Considerable attention is given to the growing of pickles and also Italian onions. The latter is gaining in favor.

There are many varieties of potatoes raised in this State, but those which appear to give the best satisfaction are Burbank Seedlings, Garnet, Chile and Early Rose. There are others which are equally good but they have not been so thoroughly introduced. When the potato has has been grown on loamy, sandy soil, which is comparatively new or which has been cropped, the yield is large with quality unsurpassed. These command the highest market prices when mature and suitable for shipment or keeping in store. This year there is more complaint than usual of diseased potatoes, but it is doubtless due to continuous cropping on the same land. To get the best results, the land, when it begins to lose its power for turning out the very best potatoes, should be seeded to grass or equally as radical a change made for two or three years, when choice potatoes can be raised again. Rotation in crops is an absolute necessity to secure best results.

Live Stock.

The following gives the number of live stock in each county in the State:

	Horses and Colts.	Stock Cattle	Calves.	Cows.	Hogs.	Sheep and Lambs
Alameda	11,268	5,315	1,410	9,429	1,950	3,520
Alpine	221	540	450	270	65	500
Amador	3,238	7,161	1,080	2,813	5,804	5,[illegible]60
Butte	7,648	8,080	2,486	2,240	6,276	39,010
Calaveras	5,380	6,590	3,400	3,126	1,130	22,100
Colusa	7,590	5,582	2,890	3,068	1,150	55,400
Contra Costa	10,442	6,372	3,840	5,870	5,170	6,110
Del Norte	2,162	1,152	663	2,918	910	450
El Dorado	4,158	3,592	3,060	3,795	2,075	7,726
Fresno	17,551	45,452	6,643	4,285	9,190	402,450
Glenn	5,230	4,010	1,210	2,100	8,100	21,500
Humboldt	6,341	17,870	7,620	12,290	7,585	101,180
Inyo	5,752	13,460	3,905	1,085	1,590	4,500
Kern	8,6[illegible]6	68,582	7,609	2,809	6,190	315,505
Lake	3,85[illegible]	2,628	1,687	1,834	5,960	16,370
Lassen	9,025	17,3[illegible]2	7,883	1,509	1,176	11,025
Los Angeles	21,921	14,150	3,915	10,504	6,790	203,090
Marin	1,405	5,590	2,910	26,004	7,510	410
Mariposa	1,975	6,170	1,423	1,28[illegible]	3,490	92,100
Mendocino	6,582	8,970	3,335	5,870	11,090	141,786
Merced	7,971	19,634	5,300	1,886	5,662	126,141
Modoc	11,658	32,180	11,699	1,790	2,242	13,442
Mono	1,464	5,066	1,685	442	190	2,210
Monterey	12,480	10,800	6,200	7,900	2,275	9,210
Napa	6,546	5,520	2,675	4,280	4,170	29,870
Nevada	3,947	2,120	1,193	2,419	9,100	1,980
Orange	6,548	5,053	2,093	2,128	2,617	115,963
Placer	8,296	2,891	3,876	3,120	1,787	48,500
Plumas	2,458	4,680	3,012	3,656	636	300
Sacramento	9,185	5,590	4,920	8,282	17,260	32,500
San Benito	9,531	18,641	4,920	2,901	1,210	13,200
San Bernardino	6,841	7,350	1,209	2,984	1,690	17,810
San Diego	11,678	21,388	5,822	4,709	4,765	32,500
San Francisco	1,902	.....	.....	8,150	2,100	4,500
San Joaquin	20,019	18,580	2,409	5,387	11,200	39,994
San Luis Obispo	12,516	39,970	8,986	20,544	7,337	18,910
San Mateo	3,653	3,680	2,560	7,122	2,120	345
Santa Barbara	10,280	20,821	1,436	6,159	2,248	116,720
Santa Clara	14,670	13,789	4,411	8,192	4,432	2,150
Santa Cruz	4,890	2,153	870	4,769	1,991	510
Shasta	6,060	8,958	2,924	4,008	9,010	12,000
Sierra	1,568	1,381	810	991	510	160
Siskiyou	8,334	18,354	6,890	2,811	5,652	15,170
Solano	14,695	6,226	5,430	16,822	6,917	31,400
Sonoma	10,390	3,618	4,430	2,186	14,910	15,910
Stanislaus	7,481	10,379	3,150	1,475	12,510	40,500
Sutter	5,891	3,850	1,780	1,486	7,827	33,500
Tehama	6,165	5,751	1,920	1,297	8,910	175,100
Trinity	1,259	3,625	1,52[illegible]	5,861	270	9,115
Tulare	22,565	29,175	6,580	2,09[illegible]	18,100	142,910
Tuolumne	2,205	1,600	910	1,681	2,[illegible]00	6,400
Ventura	7,820	9,224	1,620	1,581	5,353	42,210
Yolo	8,980	4,223	2,158	4,716	11,200	36,520
Yuba	5,270	4,043	1,936	3,107	4,250	38,500
Totals	425,671	568,631	191,719	299,081	276,422	2,776,121

The number of beef cattle in the State is 16,150; oxen, 3510; mules, 39,820; jacks and jennies, 1310; common goats, 46,175; Angora goats, 2295.

A study of the above is a fruitful source of general information, and which is calculated to dispel any doubts as to California still taking a high rank as a stock-raising State. The scrubby breeds which formerly held sway have given place to the latest improved. The "mustang" and "cayuse" horses are seldom found now, but in their stead there are to be found the general utility, farm, and city animal, bred to meet the special requirements of this coast. There has been, and which doubtless will continue, an enlarging demand for large-sized and well-formed draft horses. This call is not confined to cities, for horsemen claim that the agricultural, lumbering and mining districts are large and apparently steadily increasing buyers. It is claimed that although costing more, yet for heavy work there is far more economy in purchasing them than in buying the small and medium sized. The cost of feeding is very little, if any, more, while their work gives greater results. Speed horses are receiving more attention, but in this line only a limited few, compared with the draft and general utility animal, command high prices. The driving animal does not meet with as much of a demand in the cities as formerly. The falling off, it is claimed, is largely due to the now general use of bicycles. The small-sized railroad horses are giving way to a more general introduction of cable and electric cars. As a roadster or riding horse the single footer continues to hold front rank. Match teams, of kindly disposition, good steppers and of fine bearing, find ready buyers at good prices. There are several breeders of horses for various uses who are making rapid strides in the breeding of animals adapted to the special wants of this coast. For this purpose they have bought and imported the best of stallions in the lines for which they are breeding.

Railroad construction and fruit and other farming have made a complete revolution in the cattle industry. The large wastes of land formerly given over to pasture have increased in value to such an extent that they have been given over to the industries of the times and either sold out or leased in small tracts or farms. With small holdings came a demand for better farm animals in which the cow took a prominent part. Cattle are not now raised so much for consumption as for general utilization, and the breeding is beginning mainly to be to get good milkers and at the same time a good beef animal, and in securing these two excellent points a cow for the farm is had which meets every requirement. Not only are farm requirements better met, but those of the dairy are filled equally as well. With so many breeds to choose from, it would seem that by systematic crossing, a good farm and dairy cow can be bred which will find a ready market at good prices. The more general introduction of the creamery on this coast is creating a large call for good milch cows, and it is claimed that their market value has appreciated at the expense of the poorer. Farmers should give close attention to each cow, and experiment with feeding so as to find out in what way the most milk can be secured at the least expense. The hog industry is steadily enlarging, and why not? In this State ample and all kinds of feed are found, and feed, too, which makes good pork. The greatest and possibly the only difficulty which has been in its way was the securing of a market at all times for the surplus. This will be met by the construction of large slaughtering pens and packing works near this city. The company having this in charge is said to be backed by ample capital to handle all the hogs raised in this State. The farmer wishing the most profit out of his hogs must breed for those which have a rapid growth, take on flesh rapidly, have small bones and large thighs. In our market, hogs similar to the above, when fed on grain, dairy fed or fruit fed, sell at the highest market prices. But it is claimed that those fed on grapes and fruit in general fleshen more quickly, weigh more and have sweeter meat than either dairy or grain fed.

Since writing the above, we find the following in the Chicago *Drover*, which is well worth careful reading if not preserving: H. C. Dawson of Iowa is of the opinion that the future hog must be a rustler, one that has the get up and go to him, an animal of fine proportions, with extra top line, broad, deep hams, clean-cut, smooth under line, free from flabbiness of jowl or belly, with deep bacon sides, the deepness extending well back to flank and forward to shoulder, not uneven, and deep in center, having a fine cut head, smooth and broad between the eyes, jaws broad and tapering well and even to muzzle, eyes clear and prominent, with ears standing well out from the head, breaking evenly and smoothly toward the point, but would even prefer a standing up ear to a drop or flop ear, as a drop or flop ear, flabby jowl and under line in my experience are not rustlers and are more inclined to disease from their slothfulness, and these bad points are generally found together. The bone should not be too large, but of fine and strong texture, firm, standing erect on their pins, tapering well from arm and thigh down to feet. Some people have an idea that the size is the most desirable in the selection of a hog, and that large bones, no matter how badly shaped, is the hog for them, claiming that large hogs must have extraordinarily large bones. While a good bone is desirable, if well shaped, a small bone is more to my notion than a big, awkward-shaped one, for this reason, a hog that has the right form and small bone possesses the faculty of putting on deep flesh, and making big returns for his feed, and carrying to market desirable meat, while the other is a harder, longer feeder and goes to market with a larger per cent of low-priced meat.

The sheep industry, like cattle-raising, is undergoing a complete revolution; large bands are no longer profitable in this State, owing to the high price of land. And with large bands of sheep relegated to the past, sheep husbandry becomes a farm industry, for it will then pay well for each farmer to keep a few head as farm auxiliaries, the keeping of which costs a mere trifle compared to the income derived from selling the wool, or the sheep for mutton. In keeping sheep on the farm it is desirable to breed for the large carcass, sweet meat and large fleece. All these points have been secured in Australia when bred for, and the sheep secured have given full satisfaction. It is claimed that even now farmers in this State are beginning to find it to their advantage to have a few head of sheep, and that as time passes the larger proportion will keep a few head on the farm. With fewer large bands of sheep there will be a ready market and at fairly satisfactory prices for the surplus raised on the farm.

Poultry.

The number of dozens of poultry in the State is as follows:

Alameda	3,956	Plumas	690
Alpine	120	Sacramento	7,110
Amador	118	San Benito	1,991
Butte	1,810	San Bernardino	3,122
Calaveras	2,210	San Diego	3,995
Colusa	1,950	San Francisco	1,610
Contra Costa	3,540	San Joaquin	6,812
Del Norte	510	San Luis Obispo	4,115
El Dorado	1,691	San Mateo	902
Fresno	7,580	Santa Barbara	3,077
Glenn	1,870	Santa Clara	5,963
Humboldt	2,200	Santa Cruz	2,566
Inyo	750	Shasta	3,109
Kern	6,890	Sierra	775
Lake	1,581	Siskiyou	1,183
Lassen	610	Solano	3,281
Los Angeles	8,925	Sonoma	6,410
Marin	691	Stanislaus	2,824
Mariposa	778	Sutter	2,988
Mendocino	1,552	Tehama	1,633
Merced	2,311	Trinity	555
Modoc	911	Tulare	3,293
Mono	150	Tuolumne	919
Monterey	5,510	Ventura	1,998
Napa	3,505	Yolo	2,339
Nevada	870	Yuba	1,335
Orange	6,171		
Placer	2,101	Total dozens	145,556

As an auxiliary of the farm, poultry-raising probably stands at the head of the list, for when given the attention it deserves, a good profit is assured, and that, too, at a comparatively light expense. The old slipshod methods must not gain a foothold or else the best results cannot be had. Poultry must be studied, and as much care given to securing the best stock as is given to other farm animals. In this State the egg which commands the highest price must be white in color and of good size. Yellow eggs, although claimed to be more meaty, are not sought for by the housewife. Farmers recognizing this, pay more attention to the Leghorn. While the latter are prolific layers, yet the fowl for marketing is small-sized and sells slowly at low prices. The writer's experience has proven that a cross between the Black Spanish and Houdan gives the best all-around results. When well crossed, the eggs are very large and white in color. The fowls are deep-breasted, large-limbed and juicy, besides they are nonsetters and free layers. The Plymouth Rock is justly held in great favor as a good, all-around bird, but the Wyandotte probably excels. Both sell well and at the highest market prices, owing to the esteem in which they are held by consumers for both size and flavor. Of the other breeds, each has friends, and justly so, too.

Dairy Produce.

The receipts from California sources and from the East compare as follows:

BUTTER.	California Pounds.	Eastern. Pounds.	Totals. Pounds.
1891	10,484,900	1,580,900	12,065,800
1890	11,491,500	1,067,700	12,559,200
1889	11,098,600	4,325,000	15,423,600
1888	8,376,700	3,597,500	11,974,200
1887	9,547,100	783,600	10,330,700
1886	9,979,200	627,800	10,607,000
1885	8,019,600	494,400	9,504,000
CHEESE.			
1891	4,427,800	1,820,500	6,298,300
1890	5,146,400	1,672,500	6,818,900
1889	4,272,000	1,155,200	5,427,200
1888	3,321,700	1,614,300	4,936,000
1887	3,989,400	968,400	4,957,800
1886	4,070,900	548,100	4,619,000
1885	3,657,500	471,000	4,128,500
EGGS.	Dozens	Dozens	Dozens.
1891	2,156,288	4,525,000	6,681,288
1890	2,479,886	3,602,500	6,082,386
1889	2,660,993	4,210,300	6,871,290
1888	2,210,015	3,168,741	5,378,756
1887	1,391,745	1,735,335	3,127,080
1886	1,663,200	2,192,900	3,856,100
1885	2,778,280	1,154,090	3,932,370

The above only gives the receipts at this port, but it is claimed that fully 75 per cent of the home production and 60 per cent of the eastern shipments to this coast come to this city. If this be the case then it is readily seen that California, to supply the home consumption has to increase the sources of supply. But it now looks as if the dairy industry of this State is fast reaching that point when it will be self-sustaining, and we will not be dependent for supplies on the East during any part of the year. When this point is reached it will no doubt be credited entirely to the establishing of creameries. During the past two years a large number of private and and also of cooperative creameries have been built and equipped with the latest improved machinery. Nevada, Washington and Oregon report increasing attention to building creameries. Creamery butter sells at an advance over dairy, owing to its being considered of more uniform grade and better keeping qualities in hot weather. There has been a decided increase in the output of the better grades of butter; this increase has been at the expense of the poorer grades, so that the increase in one is, to a great extent, neutralized by a decrease in the other. This but confirms a familiar law of trade regarding supply and demand. The increased supply of creamery butter on this coast has cut off very materially the supply we formerly looked to the central States to furnish, and greatly, so far this year, to consumers' advantage. For the first five months in this year the receipts of eastern butter were quite light owing to a light output in the central States. This decrease is said to be traceable to two causes, one of which was, during the spring months and extending well into June, the poor and also impassible roads in the rural districts, and the other to fewer cows milked. The heavy and almost unprecedented rains in the central States made the roads so bad that it was next to an impossibility to go among farmers and gather cream in the early part of the season. With good roads, cream-gathering was resumed; and with good natural pasture for cows, the output of butter is very large. But it is conceded by the better-informed that even with a continuance (which is not at all likely) for the next month or two of the present increase in the manufacture, the deficiency cannot be made good. In this opinion they are further strengthened by the accepted opinion that the general introduction of creameries has been followed by more thorough and scientific feeding, and also by testing the the milk from each cow so as to keep only those whose milk gives the highest tests. This has been, and is still being done in European countries where creameries have taken strong hold. By this policy at the East there has been a weeding out of the poorer milkers, and they have not, as yet, been replaced, for it takes time to breed up to the standard now demanded by those dairymen and farmers who keep cows for all the profit that can be got out of them. This breeding calls for cows that give a good flow of rich milk and which also have carcasses and offspring that sell at the highest figures in the open market. The decreased supply of butter at the East, while causing market values to appreciate, did not cause prices to advance as high as they should with all else equal. Probably one, if not the most important factor in keeping the market from going as high as the supply and demand under ordinary circumstances would send it, is the increasing numbers of oleomargarine factories at the East. In Chicago alone there are six factories, whose combined product is estimated to displace the product of over 300,000 cows. The *Mercantile and Exchange Advocate*, published at New York, in its issue of July 2d, claims that there are about 20 oleomargarine factories in the United States. The same authority boldly asserts, and the facts evidently bear it out, that under the present law there is a continued increase in the manufacture and sale of the article. This should be accepted as proof positive of the correctness of assertions heretofore made that the present national law bearing on oleomargarine is in the interest of rich and

powerful companies. With a large and steadily increasing output of the stuff in the hands of rich combines, the profits in dairying are threatened to be reduced to such low percentages as to draw the dairying industry down to the lowest standard of agricultural enterprises. With this inevitable result staring in the face all that are directly and indirectly in dairying, it seems the height of wisdom that more energetic measures should be taken to fight to a successful issue the manufacture and sale of oleomargarine as now carried on.

Eggs.

Dealers in eggs state that consumers are discriminating more in favor of large eggs. This demand causes the retail trade to watch the size more closely, for by getting large and attractive eggs they are assured of quicker sales, even when an advance in the price is demanded over that asked for the smaller. This is reflected by the trade of wholesale commission merchants, for with them small eggs are hard to sell, even at a decided reduction from the price of large and attractive eggs. Not only the size, but the quality also, is given more attention. Eggs gathered and marketed daily command, if of good, average size, from three to six per cent more than do eggs "as is," and which are also of unequal or varying sizes. "Ranch eggs" do not now have the significance they formerly had, for now eggs sell on merit and not on name. The experienced handler can tell at a glance, or by handling, which are over two or three days old, and pays accordingly. By reference to our commercial department, the range in prices speaks more plainly than do words the exaction of trade in conforming to closer discriminating consumers. The eggs should be white, for the bulk of the eastern eggs sold in our market are dark. To secure hens that lay large-sized, white eggs should be the chief aim of the farmer, and probably no better breed can be had than the Houdan Black Spanish. By breeding a pen of Black Spanish hens to a Houdan cock, hens are secured which are nonsetters and which are layers of large, white eggs. Besides, the fowls have the large, juicy breast of the Houdan and the large limb of the Black Spanish, both excellent attractions to consumers.

The Vintage.

Winfield Scott, secretary of the Board of State Viticultural Commissioners reports as follows:

The viticultural industry of California is in a peculiar state. As far as the wine market is concerned, there are three conditions existing, which would seem to be incompatible. These are: 1st. Increasing consumption. 2d. Decreasing production. 3d. Low prices. That this condition can exist at all is due largely to the fact that for five years we have had a period of depression in the wine market, unexampled, perhaps, in the history of any California industry. In the period from 1880 to 1885 we had an era of planting wine-grape vineyards, and at the same time there was no commensurate development of the American market. At that time it was fondly believed that a market would be found whenever the wine was ready for shipment, and that almost any variety of grape could be depended upon in any section to produce a good wine and to return a fair profit to the grower. How rude the awakening has been we all know. When the great acreage of vines set out in the years specified came into bearing, the problem of disposing of the wine became a vital one. Under strict competition, prices receded year by year until 1891, which time marks perhaps the lowest ebb of the business. But at the same time, consequent upon this competition and low prices, the demand from the American market grew steadily, and in fact most surprisingly. To day, as far as quantity goes, we have the most satisfactory market ever known in the wine trade. I am of the opinion that we always underestimated our production of wine. I say this because there is a large home market to be met—how large is not definitely known. Commonly placed at 5,000,000 gallons annually, I do not think it is less than 8,000,000 gallons, and it may possibly reach 10 000,000 gallons. This will not seem excessive, when it is remembered that besides the hundreds of small retail wine stores to be found all over the coast, almost every wineproducer is in fact a retail dealer, and has some trade direct with the consumers. Moreover, there is a demand for 12,000,000 annually from the East and from foreign countries. There has been an increase of about 100 per cent in this business in the past five years. This will give some idea of the immense strides taken by the shipping trade since 1887, when the present depression really began. Turning now to the production. Reports from the principal producing sections indicate that there is no reason for believing that the total production of this year will exceed 13,000,000 gallons—of which less than 3,000,000 gallons will be of the varieties known to the trade as sweet wines, and including ports, sherries, angelicas, muscatelles, etc. Many causes have brought about the small production of this year. There has been, as is known, a terrible destruction of the vine in southern California by what is called the Anaheim disease; and in Napa valley, Sonoma county and Solano county the phylloxera has destroyed many thousands of acres of vines. Many vineyardists, discouraged by long-continued low prices, have rooted up their vines and have planted other crops. Furthermore, this season has been most unpropitious for a large crop. I doubt if there will be over a half crop in Napa and Sonoma counties, owing to frost, unseasonable hot and cold weather, to dropping of grapes (coulure), and to other causes. In Santa Clara and other counties there will not be to exceed a two-thirds crop. At this juncture, the stock of wine in the State becomes of importance. Knowing this, and knowing the prospective crop and certain demand, it is possible to predict with reasonable certainty when the long-promised revival of the industry will come to pass. The most careful estimates place the stock in San Francisco and in the interior cellars at not over 15 000,000 gallons. At the present rate of consumption, this is but nine months' supply, and it must be remembered that much of it is owned by people who are amply able to hold for better prices, and who will not sell until such can be obtained.

The Vineyard.

Viticultural Situation in San Joaquin Valley.

OFFICE VITICULTURAL COMMISSION,
S. F., Aug. 22, 1892.

TO THE EDITOR:—I take pleasure in enclosing herewith an advance proof-sheet of the report of president George West, as commissioner for the San Joaquin district, in which the situation of the raisin industry is discussed. This is supplementary to his report of February, 1891.

The proof is sent you that the suggestions therein contained may be brought before the raisin-producers of the State, at as early a date as possible.

The annual report of the board, of which this report is a part, will be ready for distribution in about six weeks.

WINFIELD SCOTT, Sec'y.

GEORGE WEST'S REPORT.

Since my last report there has been no material change in the condition of the viticultural interests in this district.

In the county of San Joaquin, little interest has ever been taken in vine-growing, although the vineyards now planted produce large crops which have always commanded fair prices and have yielded returns much more remunerative than grain. This is especially true of table-grapes, which can always be relied upon to produce $100 per acre at present prices. There seems no immediate danger of overdoing this branch of the industry, although the market will always be uncertain and fluctuate with the fruit crop of the East. All table-grapes will produce a good neutral brandy and consequently will be in demand at the wineries in years of depression at approximately the same price paid for low-grade wine grapes.

There has been no increase in the acreage of vines in San Joaquin county.

Stanislaus county planted quite an area in raisin-grapes in the winter of 1890–91. The same may be said of Merced, Fresno, Tulare and Kern counties, and it is probable that 10,000 acres of Muscats were planted in the winter of 1890–91. It is only fair to estimate that the plantings of 1891 and 1892 would no more than offset the acreage of older vines abandoned because planted on poor lands.

Fresno county is, of course, the leading grape-growing county of the district.

The business of growing wine-grapes in this county has suffered with the general depression throughout the State. The wine market presents the remarkable spectacle of increased consumption, decreased production and low prices. This state of affairs cannot long exist, and a reaction is sure to come.

The vintage of 1891 in Fresno was very large and the prices were unsatisfactory. The coming vintage will be relieved by the drying of a considerable amount of wine grapes.

Contrary to my expectations, the prices received by the raisin-growers for their crop of 1891 were hardly satisfactory. The crop of 1892 was severely damaged by coulure—so severely, indeed, as to amount to an almost total loss of the first crop in many of the young vineyards. In consequence of this and also of the general shortage of the fruit crop in the East, the prices for the year 1892 will be highly remunerative. This fact, however, should not induce extension of the acreage devoted to the cultivation of the Muscat grape, for there is nothing in the present outlook to justify the venture. By far the largest part of the vineyards of the valley are not yet in bearing, and will at the next good season produce a crop so unwieldy as to completely demoralize the whole industry, unless steps are taken to provide all possible outlets and to vastly improve the facilities for handling the crop. One of the most serious features of the whole business is the competition of the Zante currant now admitted into this country free of duty. Immense quantities of these currants are dumped on the markets of New York at prices which we cannot meet—especially with labor costing $1.50 per day against European labor costing about 20 cents per day.

Those growers who have established brands will always be in a position to command better prices for their goods than those who are compelled to sell to the packers.

The disposition of the second-crop Muscats is a matter worthy of the most serious consideration. A yield of one ton per acre of second-crop grapes from the raisin vineyards of Fresno and Tulare, when in full bearing, will produce an aggregate tonnage apalling to contemplate. It is conceded by all growers that the drying of this second crop will in a few years be out of the question. What can be done with them? There will be thousands upon thousands of tons to dispose of. During the past summer a great deal has been said about converting these second-crop grapes into wine and brandy, but the amount which could be so consumed would not in any way affect the aggregate production of grapes.

The wine market is, has been and will be fully supplied by the vineyards planted in wine-grapes, and the wineries will naturally handle all the Muscats that can possibly be marketed. So much can be used and no more; and an attempt to force a large amount of Muscat wine or brandy into consumption would result simply in depressing the market, so that there would be no profit left. The flavor of the Muscat brandy is very pronounced, and is much admired by some people. However, to the general public it is unknown, and to cultivate the public taste will take years. If some means could be devised for making neutral grape spirit from the second-crop Muscat, the whole question would be solved; for a very large amount of such spirit could be exported.

The making of table syrup is a matter which should be investigated by the raisin-growers of Fresno. Such a syrup condensed under a vacuum would present a beautiful appearance, and would be an article which could possibly be exported. There are several methods of producing this syrup. I have devoted considerable attention to this matter, and carried out a line of experiments with Mr H. S. Lord, of Hartford, Conn., which demonstrated that an article could be produced pleasing both to the eye and to the taste. There would be a large market for such a product as a temperance fruit drink, and also as a syrup for general table and household use. There is also another process, owned by the Yaryan Co., of Toledo, Ohio. These should both be investigated by the raisin-growers of the San Joaquin valley. There may be some methods in use in the South which would be practicable here.

I have in this report made no attempt at the compilation of statistics total production, importations, consumption, etc., but shall in my next report give as close estimates as possible for the years 1891 and 1892.

I am aware that the publication of reports and statistics of the general tenor of my report of 1890 is not popular with people who own large tracts of land which they would like to subdivide and sell, but in closing I would state that the opinions I have advanced are backed by the most practical growers of California. GEORGE WEST,
Commissioner for the San Joaquin District.

Why California Wines are not Better.

J. Knouth of Sacramento gives the *Bee* his views as follows: "We have in California a climate unsurpassed in any part of the world, as far as known, for the growth and perfection of the grape. We are less troubled with insects and pests (the phylloxera excepted), destructive to the vines, than any wine-growing district in Europe. We have also plenty of clean, suitable grounds for vineyard purposes, but almost invariably has the low, rich ground been selected for a vineyard, and contrary to the repeated warnings by those understanding the matter. The bitter consequences of the present have been fully foretold by those whose warnings were unheeded on this point. The throwing of such a mass of new, nonpalatable wine on the market could not result otherwise than as a damage even to really fine wines. Educating people's taste to a liking for such faulty wines, is a long-winded operation. We have grapegrowers making their own wine, and believing it to be pure, but they will not use any of their own production. They do not like its taste, but they wish to sell it for a good price to others whose taste may be educated.

Another drawback is the total ignorance of many in the art of making wine. Many of those having learned something of wine-making in other countries where the compound of the fresh juice and the conditions of climate differ so much from ours, adhere to their old methods and naturally without making much headway.

Another evil is the large vineyards held by one owner. At the time of gathering the fruit the hurry is often so great that, in order to keep everybody busy, the grapes are cut in advance and piled up in heaps waiting to be crushed. This is a most pernicious practice, which permits the grape to heat up and sour before the fresh juice is housed.

Put all this together and see if any but bad results can be expected, and nobody is to blame but ourselves. Of course some of our large dealers in wines are at fault for not paying a better price for upland grapes or wine, to encourage the extending of the like. They make no distinction, thus discouraging many of the growers who naturally say, "If I can't dispose of my grapes or wine for a better price than my neighbor, John, whose water-soaked adobe vineyard produces twice as much of grapes or wine as my upland vineyard, there is no use in extending my vineyard." Some of these wine merchants have flooded the market with the most ordinary stuff, having nothing in view but their immediate gain, and buying and selling at such ruinously low prices as to make it difficult to market our fine wines under the name of "California." Occasionally something will turn up, promising relief. Of late some have tried drying the grape and sending the product to France, there to be soaked up and made into wine. By drying the grape nothing is lost but the water; all the qualities, good or bad, remain and make themselves manifest as soon as the wine is ready and dry. Similar tests were made some 15 years ago by an Eastern firm by evaporating the fresh juice to syrup, but the result has not proven satisfactory, because good and bad qualities of the new wine were retained.

Grapes for the market, or table, may be grown on the moist or lower grounds, quality, such as is requisite for a good palatable wine, cutting no figure in table-grapes. It is the size, show and shipping qualities that are wanted, but the trimming of the vines should not be performed in such slipshod way as is often the practice. The object is to have as many full-sized, showy grapes as possible. A large quantity of small, indifferent-looking grapes is not desirable, and as the cullings will not make a good wine, the profit would greatly shrink.

Some say, why not turn such wines into brandy or alcohol? In the first place, this would be well if a distilled, poor wine would not influence the taste of the brandy so as to make it less valuable and slow of sale. Alcohol is generally obtained from refuse of sugar factories and other sources much cheaper than wine.

One thing should be said, however, before closing this unpleasant subject, and that is, if ever we begin again to root up our vineyards, let us spare those on the uplands. The time will come when our wines will be recognized and sought after under their own proper name. To attain this end we must learn the art of wine-making fundamentally, and we will no longer be at the mercy of anybody. A ripe, palatable and healthy wine will soon educate the people to appreciation and liberal use.

TEN immense logs, the largest ever cut in the forests near Tacoma, will be shipped to Chicago to go into the Washington World's Fair building. Each log is 122 feet long and 42 inches across at the small end. Every two logs required seven cars, 35 cars in all being required for ten logs. One hundred and twenty-six logs will be required for the foundation of the Washington building.

THE FIELD.

The World's Fair Exhibit at Mechanics' Institute.

Producers should bear in mind the display of California products in this city next January and the premiums for which competition is invited. The directors of the Mechanics' Institute, at a regular meeting held August 16th, adopted the premium list for the Preliminary World's Fair Exhibit of California, beginning January 10th and closing February 25th. This premium list is the result of a large amount of labor and covers a much greater range than former premium lists of this institution. Owing to the arrangements made with the California World's Fair Commission, special efforts are directed to the calling out of large agricultural and horticultural exhibits. Under the department of "Farm Products," over $6000 will be awarded in cash premiums, also six gold medals, three grand silver medals, 32 silver medals, one grand bronze medal and eight bronze medals. Among the awards are the following:

For the best, most extensive and varied exhibit of farm products, exclusive of live stock, by any coun y in the State.....Gold Medal and $1000.
For the second best display.....Grand Silver Medal and $500
For the third best display.....Silver Medal and $400
For the fourth best display.....Bronze Medal and $250
For the best display of wheat in grain and sheaf.....Silver Medal and $100
For the best display of barley in grain and sheaf.....Silver Medal and $50
For the best display of oats in grain and sheaf..Silver Medal and $50
For the best display of rye in grain and sheaf..Silver Medal and $50
For the best display of corn in ear and stalk, excellence and variety considered.....Silver Medal and $50
For the best general display of citrus fruits by the p oducer.....Gold Medal and $400
For the second best display of citrus fruits by the producer.....Silver Medal and $300
For the best general display of citrus fruits by dealer, quality and variety considered.....Silver Medal and $100
For the second best general display of citrus fruits by the dealer, quality and variety considered.....Bronze Medal and $50
Best display citron of commerce.....Silver Medal
Best display and variety of apples by the producer.....Silver Medal and $100
Second best display and variety of apples by the producer.....Silver Medal and $50
Best display and variety of pears by the producer.....Grand Bronze Medal and $100
Second best display and variety of pears by the producer.....Bronze Medal and $50
Best display of California raisins.....Gold Medal and $200
Second best display of California raisins.....Silver Medal and $100
Best general display of dried fruits by the producer.....Gold Medal and $200
Second best display of dried fruits by the producer.....Silver Medal and $100
Best display of cultivated nuts by the producer, variety and quality considered.....Gold Medal and $50
Second best display of cultivated nuts by the producer, variety and quality considered.....Silver Medal and $25
Best display of canned and preserved fruits and vegetables.....Gold Medal
Second best display of canned and preserved fruits and vegetables.....Grand Silver Medal
Best display of pickles and sauces.....Silver Medal
Best display of jellies in glass—home made....Silver Medal and $25
Best display of dried figs by the producer.....Silver Medal and $100
Second best display of dried figs by producer.....Bronze Medal and $50
Best display of dried prunes by the producer..Silver Medal and $100
Second best display of dried prunes by the producer.....Bronze Medal and $50
Best display of jams in glass—home made.....Silver Medal and $25
Best display of preserved fruits in glass—home made.....Silver Medal and $25
Best assortment and quality of pickles—home made.....Silver Medal and $25
Best general display of vegetables, quality and quantity considered.....Silver Medal and $50
Second best display of vegetables.....Bronze Medal and $25
Best display of butter.....Silver Medal and $25
Best display of cheese.....Silver Medal and $25
Best apparatus and methods for treatment of milk and cream.....Silver Medal
Best display of California honey in the comb...Silver Medal and $50
Second best display of California honey in the comb.....Bronze Medal and $25
Best display of wool, not less than four fleeces..Silver Medal and $50
Best display of cotton, not less than 50 lbs.....Silver Medal and $25
Best display of mohair, not less than 10 lbs....Bronze Medal and $15
Best remedies and appliances for destroying insects.....Silver Medal
Best display of hops, not less than 25 lb.....Silver Medal and $25
Best display of Chevalier barley, in grain for brewing.....Silver Medal and $15
Best display of cured forage plants and grasses.....$100
Best display of indigenous foods.....$100

In addition to the awards above mentioned, the following special cash prizes are offered, to be awarded to county exhibits fully in place on the opening day of the exhibition:

For the most complete exhibit.....$500
For the most original and attractive exhibit.....$250
For the widest range of useful products.....$250

These latter are special awards and are in addition and without regard to any other awards which may be made to the different counties, being special inducements offered to counties to have their displays in place on the opening day of the exhibition. The awards in the Art Department will include cash premiums of over $1000, together with a liberal assortment of silver, grand bronze and bronze medals. In addition to these awards, over $4000 will be expended for awards and medals in the other departments of the exhibition. It should be borne in mind that freight on all displays for this preliminary exhibit will be paid by the Institute and Commission, all that is required of the exhibitor being to box his products and deliver them for shipment to the nearest railway station or steamer landing. Detailed information can be had on application to Charles B. Turrill, manager of the Preliminary Exhibit, room 63, Flood building, San Francisco.

Stacking Hay.

Frank S. Chapin, the *Record Union's* traveling correspondent, writes the followig description of a cheap plan adopted by a Modoc county farmer for stacking hay:

Where stock raising is the leading industry, winter-feeding is necessary, and as stock must be sold at a price that those are willing to pay who drive them hundreds of miles and then fatten them before marketing, it becomes necessary to put up most hay at the least expense.

Acting under this stimulus, the farmers of Modoc county have shown much ingenuity. Peter Peterson of Fort Bidwell was putting up his hay from bunched winrows in this way: He hitches a horse to each end of a big rake or "buck," and draws about 1000 pounds at once to the end of the stack. The horses are then detached and a wire rope, running over the stack, is attached and another team hauls the load, buck and al , up a slide and over the top of the stack. All the handling that is necessary is to keep the stack nearly level, and this system packs the hay so solid in the center that it does not wet down.

The buck is made by taking a 4x6 scantling, 12 feet long, and inserting six two-inch teeth four feet long, horizontally, and four vertically. An iron hook on the upper side of the scantling, at each end, and six feet of chain dragging, forms the center and completes the rig. A horse is hitched to each end by a 12-foot rope, and the cross-lines are lengthened to keep the horses about that distance apart. The driver and horses soon acquire the tact necessary to gather up a thousand pounds easily and bring it to the stack.

For two teams they use four bucks, so that an empty one is always ready to start out with. The slide is like a section of a roof mounted on wheels, cut from the end of a log, and covered with an 18-foot fencing. It is 13 feet high on the side next the stack. At the top is an eight-inch log, rolling on gudgeons, for the rope to run over.

If it is necessary to make the stack more than 20 feet high, there is an apron twelve feet long that is hinged at the top and drops down against the stack until it is too high for the main slide. Then the slide is drawn a few feet away and the apron rested upon the stack.

When the buck has been left at the foot of the slide one of the men comes down the slide from the stack with the wire rope. This is 100 feet of ⅜-inch steel rope, with two ¼-inch ropes at the end, each 30 feet long. A loop on each of the short ropes is dropped over hooks on the slide and the team at the other end of the stack hauls the hay, buck, man and all up the slide and along the stack until he gets ready to push forward on the vertical teeth and dump the load. As the buck turns, the hooks loosen, and when freed from the load it is easily thrown from the stack.

With two white men to run the bucks, three Indians on the stack, and himself to run the stacking team, Mr. Peterson said they easily put up 40 tons per day in a way that was almost perfect, so far as settling or injury from weather was concerned.

On rough ground, hay is liable to be wasted, and where it is of alfalfa or any kind of clover, or extremely dry, there is liable to be loss from grinding it up or rubbing off the leaves.

Mr. Peterson was building his stacks 22 feet wide on a frame set on posts eight feet long, sunk two feet in the ground and covered with rails. The object was to shelter the cattle. He only counted the labor of getting out the posts and crossbeams, and said it cost him about $7 per stack. It would be a good plan on land subject to overflow.

THE VETERINARIAN.

Anthrax or Splenic Apoplexy.

Although we have previously printed full accounts of this dread plague of the herds, we republish the following from the Kern Co. *Californian* of last week because of the continued existence of the disease in this State:

Please allow me to answer a question through your valuable columns in regard to a disease which has caused the loss of quite a number of cattle in this valley during the past few months.

The disease in question is charbon, or anthrax (splenic apoplexy.) It consists in a special and primitive alteration in the blood by which an organism termed the *bacillis anthracis* is rapidly developed and propagated and is peculiar to the herbivora (herb-eating animals) and aves (birds). Inoculation with the blood or tissue of animals which have died with anthrax or its sequels induces, both in man and other animals, a malignant form of inflammation called malignant pustules, and for this reason anthrax is looked upon and described as a truly contagious disease.

Anthrax has a very ancient history, being described by medical writers in the early part of the 16 h century. It was prevalent and of such fatal nature that several hundred people perished from partaking of the flesh of animals affected with the disease. Many outbreaks of anthrax of more recent date have been carefully studied by the medical fraternity until the true nature of the disease is well understood.

ETIOLOGY.—The influences which predispose to the development of anthrax are arranged by able writers under four principal heads, comprising, respectively, the influence of temperature; water spread over the surface of the earth as in swamps, stagnant ditches and inundated or irrigated lands; forage tainted with decomposed animal and vegetable matter; and by contagion.

Influence of temperature—The hygrometric and thermometric conditions of the atmosphere always exercise a marked action on the organism, disposing it under certain circumstances to anthrax, generally when there are hot days with cool and humid nights.

Influence of stagnant water—The history of the malady demonstrates that marshy and inundated or irrigated lands are favorable to its development. In this valley where the land is irrigated, the water is allowed to stand in the ditches or in low places and a large amount of vegetable matter that decays on the land is leached out during irrigation. Then, the water being allowed to settle in the low places, slowly evaporates and leaves a strong solution of decayed vegetable and, in many fields, animal matter. In this water is a fertile field for the development or propagation of the bacillis anthracis, and by a second irrigation the bacilli are carried from their place of propagation and lodged on the vegetation in other parts of the field, contaminating the provender with its deadly poison.

Anthrax is also disseminated through the agency of flies. I have observed that the disease was most prevalent when flies are most numerous, and I have induced the disease in rabbits and guinea-pigs by inoculating them with flies caught on the carcasses of animals which have died of anthrax. The flies themselves resist the influence of the virus, although bacteridæ are found in them.

PATHOLOGY.—The influence of all these causes upon animal economy, differing widely in their primary stages, induces certain changes within the blood which ultimately tend to grave alterations in its composition and to its death and decomposition.

First of all, we must consider the influence of highly-nutritious and nitrogenous food when suddenly brought to bear upon the animal body. Veterinarians are generally agreed that the result is the rapid formation of blood highly charged with albuminous material which neither the tissue nutrition nor the excretory organs are calculated to keep in anything like its normal condition. In consequence of this, grave changes occur, by which its constituents become degraded and the system eventually empoisoned. If it be remembered that every tissue and organ of the body, by withdrawing from the blood constituents which are essential to their well being, serve as excretory organs to the rest of the body, the subject will be more clearly understood. Without this withdrawal from the blood of these constituents, by every tissue and organ, it soon becomes unfit for the purpose for which it is intended, and the same condition results when it is so rapidly (and hence imperfec ly) formed that the process of tissue nutrition cannot possibly eliminate or withdraw from it more than a moiety of its superabundant constituents.

For example, the whole of the body requires within a given time a certain quantity of plasma for all the purposes of nutrition, growth, heat, the formation of fat and what is eliminated by the excretory organs; and if within that period the quantity of plasma far exceeds these requirements, it naturally follows that the unused matter must accumulate and there undergo such grave alterations as to become injurious to the animal economy, empoison the blood, modify its power of absorbing and conveying oxygen from the lungs, destroy the integrity of the blood corpuscles and convert it into a proper habitat for the development and growth of low organisms, which cause within it a septic or putrefactive action by which its vitality is ultimately destroyed. It, in fact, brings about a condition of the blood similar to that which can be produced artificially by the introduction of decomposing animal matter or by giving it with the food upon which the animal is fed. When the blood is so altered, it tends to accumulate in the vessels of the soft structures of the body, such as the areolar tissue (that substance which connects the skin to the body), spleen, enteric mucous membrane and lungs, where it rapidly transudes through the walls of the altered and debilitated blood vessels and constitutes the various local manifestations, giving all, or a portion of those organs a black, congested appearance (in postmortem), misleading many stockowners to believe the animals die from indigestion or inflammation of some one or more of these organs, which is not the case.

It is supposed by many that anthrax (black leg) and splenic fever were of spontaneous origin; but in opposition to this theory, we have the observations of many eminent pathologists who maintain that the malady is due to the propagation of a now well-known organism—the *bacillus anthracis.* Various experiments have proven that these bacilli will resist inclement weather and elements for an indefinite period of time and still remain virulent and active if exposed to the atmosphere, from which they derive oxygen and thereby live. It has been fully demonstrated that the bacilli lose their virulence or die when deprived of oxygen by being placed in a sealed vessel. They are also destroyed or rendered inert when exposed to a temperature of 195° Fahr.

These experiments fully demonstrate the necessity of either burning or burying deep the carcasses of all animals which die, and the former is preferable. It is not uncommon to find a number of dead carcasses lying exposed to the elements on ranges and pastures of our stockgrowers, especia ly sheepmen, and then people will wonder why disease or sickness of their family and stock occurs, and will attribute it to ill-luck, which has nothing to do with it. Almost criminal negligence is the fault. Our State Board of Health should look after the matter and ask that stringent legislation be brought to compel the cremation or deep burial of all animals that die. In the putrifying blood of one sheep there would form sufficient bacilli to kill 100 head of cattle if they were inoculated.

Dilution of the fluid containing bacilli with a moderate quantity of water has no effect on its virulence, but a large quantity of water destroys it or prevents the development of the bacilli.

Anthrax, or splenic fever, is not transmitted by infection from one animal to another, for animals kept in the closest proximity to diseased ones, and placed under the most favorable conditions for infection through the air, do not become diseased.

Mice and rabbits seem capable of eating food containing bacilli with impunity and flies may gorge themselves with the infected blood and suffer no harm, but horses, cattle, dogs, cats and ferrets succumb after partaking of either food or water contaminated with the virus. T.

THE HOME CIRCLE.

The Sleep.

"He giveth His beloved sleep."—Psalm cxxvii:2.

Of all the thoughts of God that are
Borne inward unto souls afar,
Along the Psalmist's music deep,
Do tell me if that any is
For gift or grace surpassing this—
"He giveth His beloved sleep"?

What would we give to our beloved?
The hero's heart to be unmoved;
The poet's star-tuned harp, to sweep;
The patriot's voice, to teach and rouse;
The monarch's crown, to light the brows?—
"He giveth His beloved sleep."

What do we give to our beloved?
A little faith all undisproved,
A little dust to overweep,
And bitter memories to make
The whole earth blasted for our sake;
"He giveth His beloved sleep."

"Sleep soft, beloved!" we sometimes say.
But have no tune to charm away
Sad dreams that through the eyelids creep.
But never doleful dream again
Shall break the happy slumber when
"He giveth His beloved sleep."

O Earth, so full of dreary noises!
O men, with wailing in your voices!
O delved gold, the wailers heap!
O strife, O curse, that o'er it all!
God strikes a silence through you all,
And "giveth His beloved sleep."

His dews drop mutely on the hill;
His cloud above it saileth still,
Though on its slope men sow and reap.
More softly than the dew is shed,
Or cloud is floated overhead,
"He giveth his beloved sleep."

Aye, men may wonder while they scan
A living, thinking, feeling man,
Confirmed in such a rest to keep.
But angels say, and through the word
I think their happy smile is heard—
"He giveth His beloved sleep."

For me, my heart that erst did go
Most like a tired child at a show,
That sees through tears the mummers leap,
Would now its wearied vision close,
Would childlike on His love repose
Who "giveth His beloved sleep."

And, friends, dear friends, when it shall be
That this low breath is gone from me,
And round my bier ye come to weep,
Let one, most loving of you all,
Say, "Not a tear must o'er her fall—
He giveth His beloved sleep."

—Elizabeth Barrett Browning.

Daniel Dicker's Fall.

Written for the RURAL PRESS by DUANE MORLEY.

Forty years old! Not old for a man, but old for a boy, certainly; and little, so that the coat he wore and the shoes which covered his feet were bought of juvenile stock. And he shaved his face, every hair off, and perpetually wore a little bell-crowned hat, more crown than brim, making him look beneath it like a court-jester or like Barnum's buffoon.

As his ears were quick to hear, he knew that many called him "the little old boy." But he had a manly heart, manly principles and, moreover, he was a man, his vote being as weighty and consequential as that of any other man.

It was true, however, that he was just about mature when he became forty. All his life he had plugged about at this thing and that—gardening, cow-milking, rough carpentry and such like employments, but with little or no success at any of them, and injured by a fall while shingling a barn, was so hurt as to be of little good along that line ever afterward. There were odd jobs for the women folks then, and as his patrons had little money, he got little.

In an old, half-dilapidated building which, somehow, he had acquired possession of, he bestowed himself with his few belongings and lived. Small as he was, care rested upon him, drawing little wrinkles about his eyes and ploughing a furrow or so along his broad white brow. Though his body was small, his head was big, and with a good deal in it.

But a crisis had come. His fall had injured him and his chore-work brought him so slender an income that he was nearly on the town. On his pallet in his little, old, unused building, he lay deliberating about it. And the more he thought about it, the more he realized the necessity of his having a business of his own. How foolish he had been, to be sure, serving others year after year for the miserly pittance they paid! "I shall have a business of my own." So he declared to himself, en-soliloquy, as he deliberated. And it was his accident that had precipitated the necessity. Despite the little fellow's poverty, he had hidden away a funeral fund—a small sum to buy the coffin with and fee the gravedigger when life should cease. Like many another, he had a horror of the potter's field. "This little sum I'll use for a starter." So he soliloquized, and so he did, first securing a long lease of the half-ruined building for a song, and next getting a good, strong handcart and a few other matters to his liking. Evidently under the weather, no one paid much attention to his movements. But eventually they saw that he was out early and in late, scouring the little city in all kinds of weather for refuse tinware, and, in fact, for all sorts of old junk. So he made his first stake. Then he bought, repaired and sold old furniture, employing a likely young fellow to tend shop while he was abroad with his goods. In an inner room he passed his evenings and the long, stormy days of winter. It was secluded and few saw it; but when seen, as some were prying enough to peep through the crack of the door, they saw daybooks, ledgers, cashbooks and all the paraphernalia of a great business. Then the news spread that "the little old boy" was doing exceedingly well. But he was not, simply common or ordinary in the matter of trade. What the prying ones had discovered was a business college, the little fellow being both principal and pupil. But he mastered his studies, and after awhile when real estate was at a lag, he bought the little old house and the patch of ground which went with it. Then he new-weatherboarded, shingled and painted the building, making it look as near like the other business houses as possible.

"O, yes," he soliloquized when no one was by, "I must have a sign—in fact, two of them."

Eventually there appeared over the double front doors: "Daniel Dicker, Dealer in Furniture, New and Second Hand," and over the end door: "Expert Accountant. Business Solicited."

After that no one called him "the little old boy." It was, "Mr. Dicker, I wish you would overhaul my books," or "Friend Daniel, come around again and set my books right."

Then it was that he did accomplish something; his shopman managing the furniture, himself getting good pay for his own services and saving, as he did, the reputation of many a giddy-brained youth and the business of the employer. And he added to his own reputation and skill constantly.

One morning there was great commotion in the city. The County Treasurer had committed suicide; the books were found to have been falsified, and moneys retained to the extent of thousands. Just what condition the office was in was hard to determine, so the matter was brought to Dicker for him to figure out, he having to closet himself with the deputy for days. He finally found that fifteen thousand and some odd dollars had been abstracted and used—as a little detective work revealed—in stock gambling, the stock which the speculating official bought dropping 50 per cent instead of increasing in value that much. It was that unexpected decline that determined the official's suicide; but his widow came to time finally and paid the deficit out of her own private fortune; while the office affairs continued in the deputy's hands, but under the watchful eye of Dicker.

Strange! but three months later that same stock rose rapidly, doubled and quadrupled in price, and the widow realized a fortune. When election time came again, Dicker was chosen Treasurer by an overwhelming majority. It was current rumor that it was his influence that had secured of the widow the $15,000. In Dicker's hands the office affairs ran as smooth as clockwork, and the new treasurer's appearance changed somewhat to suit the new position, the credit and decency of the place he occupied—a fine soft suit of blue-black topped off by a new beaver.

It was the same Dicker, but a little more presentable. And again one day he soliloquized: "As I am a man," said he, "it is time I was getting married." And as he continued, he smiled: "How would I look, a little fellow like me, nearly 50 years old, asking a woman to have me?"

By a strange coincidence he was spared the necessity, for that same day the widow of the deceased treasurer sent her carriage for him to come up. And when they were alone after his arrival, said she: "Some one must look after my investments; will you not, Mr. Dicker?"

After some reasonable hesitation Dicker finally consented.

Then the lady grew more familiar, even tender, and said, as she impulsively laid one of her fat, red hands on one of Daniel's slender, pale ones: "Daniel, why not take this business for life, and superintend me whilst governing my money? Say you will, Daniel, and let us swear out the warrant Saturday and be married Sunday. You see," she explained, "Borden's death, such as 'twas, lost me social position and I rather wish to be the treasurer's wife again."

Dicker was so much in the habit of embracing his last best chance that he consented.

A year or two afterward, while Dicker was one day full of business as ever, dodging about the streets here and there, two men sitting on a dry-goods box at a store front noticed him. Said one of the men: "Who is that fellow? He looks like a regular little, old boy." "That is just what he used to be called," responded the other; "but it is the Hon. Daniel Dicker, our present county treasurer and candidate for Congress for this district. He's the smartest business man in this section of the State. While shingling, he fell from a barn roof, years ago, and it was the making of him, because, after that, he had to use his wits and his wits brought him business, notoriety, fortune. A fall is a good thing sometimes, especially a fall upstairs.

Bob's Particular Friend, Miss Shepard.

"Chose etrange d'aimer."

I.

"Give me your list now, if you want to,' said Miss Gardner, stopping her writing suddenly and looking up impatiently. She was making out invitations to a tea which she intended to give, and looked hot and cross. Bob drew a tiny piece of paper from his pocket, approached his sister cautiously, handed her the paper, and retreated to his armchair. Once more seated, he resumed his cigar, and, in a half-amused, half-curious way, watched his sister attentively. She scuffled her feet a great deal, and screwed her mouth into all possible shapes, as she read the names to herself, thereby affording Bob the greatest delight; for he liked to tease his sister because she got angry so quickly.

"Miss Shepard!" she exclaimed, suddenly turning and glaring at Bob. "Why, Bob," she went on, very impatiently, "I thought you hated Miss Shepard! You are always as rude to her as you can possibly be; you would rather do anything than dance with her at a party; you say horrid things about her, and here you've put her down on your list. I had left her off mine because I thought you hated her so." Miss Gardner paused to give her brother a chance to get in a word, a thing she seldom did, it seemed to him.

"Well," he said helplessly, "I thought she ought to come. It strikes me that it is rather hasty of you to leave her out on my account. Isn't she a friend of yours?"

"May Shepard is an awfully nice girl; a thing which you may have heard me say about a thousand times before!" exclaimed Helen, throwing down her pen and getting ready for a fight. "Bob Gardner, you are the most utterly inconsistent creature. There doesn't seem to be the slightest use in talking to you." Bob tried at this point to say, "No," but his sister had the floor. "What do you want her here now for? Just to be as disagreeable to her as you can? I don't believe she'd come, anyway, because she must want to keep out of the way of such a rude, sublimely conceited—"

"Then don't invite her, dearest; but forbear blackguarding me, because I don't want to go to the next Assembly very badly as it is, and the least thing—"

"I shall invite her, too; and if you don't treat her decently, you'll wish you had. Furthermore, I'm going to ask her to pour out, as I should have in the first place, if it hadn't been for you."

"Hadn't been for—who?"

Helen sat down to write the addresses on her list. Bob smoked his cigar in silence, with a satisfied smile on his face, as though he had attained success in some cherished project; then put on his hat and coat and started out. Helen wanted to tell him that it was time for lunch, but did not, under the circumstances, think it best to lower herself to do so. So Bob probably didn't get any.

II.

A week later came the tea—one of the ghastliest ordeals imaginable for Bob. A word with everybody, a sentence with nobody; a bewildering sea of black coats, on the shores of which were several excited girls serving sherbet, chocolate and tea, and all the time smiling, talking, laughing, frowning, at the solid wall of human beings around them. By great exertions Bob managed to pierce his way to a table more crowded than the others, where a slight, pretty girl, with blue eyes and light brown hair, was serving chocolate.

"Do you need anything, Miss Shepard?" he asked in a low tone, bending down over her.

"No, thanks; one of the other waiters is getting things for me," she said loudly.

Bob wisely ignored the compliment, nearly cracked his cheeks trying to smile, and finding a chair near the wall, drew it up and began talking to Miss Shepard, who seemed to pay very little attention to him.

"Aren't you tired of pouring out?" he asked at length, after he had seen several quarts disappear. "Helen said she would send some one to relieve you soon."

"Yes, I wish she would; I need relief," replied Miss Shepard.

This looked encouraging, but Bob was more or less used to it. Besides, as his sister hinted, he was conceited, so that Miss Shepard's last remark had no perceptible effect on him. A minute later another girl was brought by Miss Gardner to attend to the chocolate, and Bob walked away with Miss Shepard. They passed through the dining-room slowly and into the conservatory, which was just now vacant, and lighted very dimly by the sunset, but the hum from the other room filled the air.

"Well?" said Miss Shepard, sitting down stiffly in the chair he gave her. Bob tried to say something, but couldn't.

"Well?—we're having nice weather, Mr. Gardner," she said, half derisively. This little observation doesn't always kill conversation, for on this occasion it gave Bob's mind the little start it needed. "I haven't seen you for some time."

"No; I noticed you took particular pains not to see me on the street yesterday," said Bob.

"I didn't know you were anywhere around—were you?" she asked, carelessly.

Bob did not answer. He could hardly feel that the conversation had been a success so far. "I want to have a serious talk with you," he said, solemnly.

"Why, I hope I always talk seriously. But go on. I am dying to hear you say something."

"Will you tell me, if you can," he went on, "why I don't get along better with people? People seem to hate me instinctively; and why should they?"

"I don't know why they do," replied Miss Shepard, in rather a disgusted tone, for she really did know very well. "I've never heard any girl say anything about you, one way or the other; but I've known Helen so long that perhaps they wouldn't say anything to me on that account. How can you tell that they don't like you?"

"Well,—I don't know,—for various reasons," replied Bob, slowly.

"I guess the trouble is that they don't fulfill your expectations, that's all," Miss Shepard continued, mercilessly. "You know that a person's self-esteem is equal to his success divided by his expectations."

"But why do you yourself go out of your way to snub me on all occasions?" asked poor Bob. "I should think we might be good friends."

"Surely, I want to be good friends with everybody that I see as often as I do you. I have never meant to hurt your feelings. I never knew that I could. But did you bring me in here to give me a lecture on manners? Frankly, Mr. Gardner, I don't think you are the person—"

"No," interrupted Bob, "I brought you neither to ask you why you treat me so badly, because—I love you, and—"

A shriek of laughter interrupted the poor fellow, and Miss Shepard rose from her chair, nearly convulsed. At this moment Helen Gardner and Tom Smith, Miss Shepard's cousin, came into the conservatory together. Miss Shepard, still laughing, immoderately exclaimed: "Your brother there—proposed!—oh!" And as Bob made his escape the combined shrieks of the three reached his ears; but his sister's laughter was faint, in justice to her let us say.

Poor Bob, his head in a whirl, feeling like an abject fool, and crushed by a blow to his vanity, no less than chagrined that he had made such a confession to his enemy, as he thought he regarded Miss Shepard, hung around his mother and the older ladies for the next half hour. How he hated and cursed himself! It seemed to him that if he lived forever he must always feel like a fool now. But, finally, as he was wandering around, he caught sight of Miss Shepard in the hall, with her things on, about to go. Seeing that she was alone, he stole quickly up to her.

"Miss Shepard," he began, with a terrible heaviness at his heart, "I am very sorry that you saw fit to make public what I told you, and make me ridiculous. I had a better idea of you than that. What I told you was true—why couldn't you respect my feelings, even if they did seem absurd to you? I think—"

"I haven't time to talk now, interrupted Miss Shepard, brusquely, but with the shadow of a smile, "those girls there are waiting for me. And I hope, Mr. Gardner, that you will find out very soon why you

can't get along with most people. But, Bob," she continued, dropping her voice, "don't be too angry with me, for your sister and my cousin came into the conservatory an instant before you knew it, and might have made fun of you, anyway. If it is any consolation to you—I have decided to accept you."—Harvard Advocate.

"I Love the Woods."

O give me but that crag of rock
On which to build my simple cot,
And I'll not ask for palaces
Nor murmur at my lonely lot.

I do not need the silken garb,
The cushioned couch, or seasoned food;
I do not need the tongue of men
To voice the word that "Life is good."

I do not need the amber scent,
The honeyed smile and tutored song,
Or crowd of glittering sycophants
That in the halls of Crœsus throng.

I love the woods.

When o'er the distant line of hills
The rosy morning peeps its head,
And stars that through the night have watched
Now quench their light and go to bed.

I rise from couch of perfumed pine
And seek the purling brook that flows
Between its fringe of velvet moss,
Where tiny turquoise blossom b'ows.

I need no marble fountain rare
To purify and lave and clean,
And when I say my grateful prayer,
'Tis in His mighty dome of green.

I love the woods.

My silent friend, my faithful dog,
The horse that hastens to my call,
The birds that sing above my head—
They constitute my all in all.

I breathe the forest's fettered air,
The breeze that cools the mountain brow,
The snow-clad summit's atmosphere,
And praise the Lord I'm living now!

I love the woods.

—Richard Mansfield.

RATIOS OF YOUTHFUL GROWTH.—The year of greatest growth in boys, says the *British Medical Journal*, is the 17th; in girls, the 14th. While girls reach full height in their 15th year, they acquire full weight at the age of 20. Boys are stronger than girls from birth to the 11th year; then girls become superior physically to the 17th year, when the tables are again turned and remain so. From November to April, children grow very little and gain no weight; from April to July they gain in height, but lose in weight, and from July to November they increase greatly in weight, but not in height. These are the results of over 6000 observations. During the school months, children suffer far more from disease than in the vacation, and during school years far more than before or after. Usually, school-work is far too hard in the lower classes, and the children do not get sufficient muscular strength. Less school-work and more physical training until the 12th year are necessary to make our coming generation strong, and a child should not undergo any severe mental labor.

YOUNG FOLKS' COLUMN.

Rover Sherman and the Big White Dog with a Pedigree.

[Written for the RURAL PRESS by KATHERINA BRYANT NOLAN.]

It was a hot day. The sun shone dazzlingly down from the blue vault of heaven, and even the breeze had yielded to his influence; scorching instead of refreshing nature.

Frank Sherman and Rover walked—perhaps it would be more truthful to say dragged—themselves along the old San Fernando road, and an exceedingly parched and dusty thoroughfare it was, that never-to-be-forgotten morning. They went in the very center, as if to make the worst of a bad bargain, yet it was impossible to tell from the expression upon Frank's face whether he was in an agreeable frame of mind or cross. His small visage was screwed up into more wrinkles than could easily be counted, but that might well be from the glare of the sun rather than from ill nature.

Rover Sherman was a dog who had a duty in life, and he never allowed anything to interfere with his profession. Wherever his young master went, he was bound to follow, and he moved soberly and sedately at his heels. This trait was sometimes an inconvenient one, but as Rover always managed to get untied or let out, when he was shut up at home, Frank had at length decided to let him start with him, as he was sure to hunt him up.

It may be that the jovial mistress of the Sherman ranch had something to do with the mysterious manner in which Rover had regained his liberty and bounded off after Frank, but no one knew. Some mothers have curious ideas that some boys do not understand, yet on the whole they are very wise ones, as many a boy can prove, if he chooses to speak.

Suddenly a distant clatter arose, and Frank faced about, scanning the hazy looking track that lay straight and shining far behind him, but he did not change the expression upon his face, or move out of the the road until Tom, the driver, pulled the big red horses up just in time to avert a tragedy. Both he and Rover were lively enough then, and they must have been daydreaming until that moment, but no one will ever know what those interesting visions were.

"Halloo, Tom," said Frank.

"Halloo, youngster," returned the good-natured driver. "You and the dog must have a grudge against yourselves. Want to ride?"

"Yes," said Frank, smiling broadly, as he climbed nimbly over the forward wheel, and perched himself up on the hard seat; and then the big red horses and the great cart rattled on again.

Rover trotted under the wagon, close to the horses heels. The dust choked him, and his red tongue drooped languidly from one side of his wide open mouth, but he stretched his long legs cheerfully, and kept an eye on the left hand shoes of the nigh horse. The dust tickled his nose, but he gave a snort and shook his head savagely whenever it was likely to become unbearable, and raced on patiently.

Rover was chock full of philosophy. When he had anything to do he put forth all his energies, and took the very greatest interest in the smallest details, and it often made life a pleasure even in the face of great discomforts. The nigh horse struck many a flinty stone as he hurried toward his dinner, and the sparks flashed brilliantly, even in the glare of the sun now nearing the meridian, so Rover fell to counting them. He had a queer way of keeping tally. When he saw a spark, he thought of some dog he knew. When the dogs gave out, he began with the boys of his young master's acquaintance, and so whenever he wanted to recall these sparks, all he had to do was to remember the dogs and the boys. Some of the latter were favorites with him, and others bore a bad, black mark against their names in the book which Rover kept, up in one of the canyons, under a stone. Frank never could tell why Rover always dug and snuffed so around that stone, but it was simply to make sure his account-book was snug and safe, and he never forgot to growl and show his teeth when a boy came around whose name was registered in this volume. He was a resolute and watchful animal, and he knew some of these youngsters were envious of Frank, so he had no confidence in them.

"Be quiet, Rover. Oh, you needn't be be afraid of Rover! He won't bite. He just growls for fun," Frank always hastened to declare, when Rover explained his feelings in this dog-like fashion, but the boys always looked a little frightened and were pretty careful about playing tricks upon his owner, when Rover's teeth were in their neighborhood.

The truth was that when Rover first came to town he had attended a dogs' party. He was a stranger and he sat by himself, but he heard the dogs talk, so he learned a great deal in regard to the ways and manners of these fellows who aimed to be friends with his master, for he had big ears.

There was one great white dog there, and every other dog treated him with deference and listened to everything he had to say, and Jack Townsend whispered in a friendly way that he had a pedigree. Now, Rover did not in the least know what this meant. He had an idea that it was a new name for some big bone which the white dog kept hidden, to dig up and nibble at from time to time, when he was hungry or in need of excitement. There was never any knowing when some mischievous, prying, digging canine might carry off such prizes to his own hiding places, and Rover knew that when he thought of a bone and started to dig it up, he could hardly wait until he got there, to see if it was really safe.

After a time, he found it was something about the white dog's great grandmother, so he blushed at his ignorance and racked his brains to remember what he had heard concerning his own ancestors. For some reason, he was anxious to be on terms of equality with this white dog. He seemed to be the king of dogs, and he watched him out of the corners of his eyes critically.

"I must have had a grandmother," thought Rover to himself; "to be sure I do not remember the old lady, but she undoubtedly existed. So far so good," and then Rover licked his chops, and eat and cogitated shrewdly until Jack Townsend proposed a coyote hunt. He did not know what this meant, but he resolved to find out. At that moment, one of the dogs saw the moon coming up from behind the lofty Verdugo range, and he uttered a long, loud howl. The other dogs saw the man in the moon making faces at them, so they followed suit, and the whole town shivered and wondered what ailed the dogs. When the dog chorus felt satisfied that the grinning, derisive man in the moon understood their feelings toward him fully, they started off on the dead run, and the big white dog led the chase.

Rover was a black, smooth-haired dog and his legs were too long for his body. He looked something like a potato dog, which has wooden toothpicks for legs and sometimes sets in an uneasy way upon a window ledge as if afraid of falling off and forever disgracing himself in the eyes of the other toothpick-legged dogs, standing in a row behind him, as he can well see by the eyes in his back. It is pleasant and consoling to all toothpick-legged potato dogs to be able to see backward as well as forward.

Potatoes have curious little eyes; but Rover had no advantages of this sort, although his funny-looking legs proved a good thing in the coyote hunt so far as valor goes. They enabled him to keep up with the white dog and nip at the coyotes' heels in a crafty manner, when they had surprised him as he stood in the middle of a field and gazed at the moon. Rover bore the marks of the final struggle for many a long day. When the coyote was tired of being chased, he gave a short, quick snap of a bark, and then several prolonged shrill howls, calculated to send terror to the hearts of his friends and enemies alike. The big, white dog fell back a bit, and as the coyote wheeled and faced Rover, he laughed gleefully and ran off home.

It was a desperate struggle, but the coyote had at length presented a flag of truce in a gentlemanly style, and had signed an agreement to keep away from the Sherman ranch forever and a day. He trotted off to his home far up the breezy shadowy canyon, and Mrs. Coyote and the children went to bed without any supper. He looked very funny, for one eye was entirely closed up, and there were various little streaks of dark red that testified to the sharpness of Rover's teeth. Mrs. Coyote scolded some, but the very next day she took her knitting and spread the news of Mr. Coyote's adventure among all her acquaintances. They all agreed that Rover was a bloodthirsty enemy, and within a few days all the gentlemen coyotes had promised never to cross the line of the Sherman ranch under any circumstances. They met down in the valley and talked it over afterward and presented a prize to the coyote who howled the longest and loudest.

Pedigree or no pedigree, Rover now felt coldly towards the big, white dog, and he felt that he preferred his own grandmother at any rate. He learned by accident what the big, white dog's grandmother really had, and it was not anything half as nice as a bone.

"Yes," said Frank to his cousin, who was out on a visit from Los Angeles, "that big, white dog has a good streak of blood in him, but he doesn't show it. His father was imported from England and his grandmother was raised upon the estate of Lord Falmouth and took no end of prizes, but Rover Sherman will beat him every time on any kind of a hunt you can name. Rover winked hard and wondered if Frank could have found out about the coyote hunt. He wagged his tail until he raised a little cloud of dust and tried hard to place his legs so that they should look more graceful.

"I always liked Rover the very best of any dog I ever saw. He is a good, smart, lively dog. I don't think much of dogs that have pedigrees."

Rover could have cried, he felt so glad when he heard this from the lips of Frank's cousin; but he didn't. He licked his chops and wagged his tail harder than ever and speculated in regard to his ancestors for the rest of the day. The more he thought about them, the surer he became that he was a dog without a particle of pedigree, and he was very glad of it.

The red horses and the big cart belonged to the master of the big, white dog, but it did not trouble Rover as long as Frank chose to sit up beside the cordial young fellow, who drove this spanking team. He was a big-chested, light-haired young man, and he held the reins easily in one hand while he talked ceaselessly to Frank, who listened to him with a flattering attention. Once in a while a shadow crossed his face and he wished Rover was riding, too, but he did not like to suggest taking him aboard. So Rover ran and Frank rode toward the home of the big, white dog. The big, red horses turned sharply by a pile of lumber and crossed the railroad track with a bound, and Frank would have been left behind only he landed on the seat by a miracle and then held on hard for his life. The driver was in nowise disturbed, and the trail lay through shining billows of silvery wheat, and far ahead of them the ranch-house and the tall windmill could be seen in the midst of a grove of eucalyptus and pepper trees.

The white dog was lying on the front portico snapping at the flies and listening to the lazy creaking of the windmill.

"I wish the thing would go or stop!" he snarled to himself. "I wish this place was screened. These flies are an abominable nuisance!" Just then he heard the noise of the team, so he stood up and shook himself. Then he rushed down the driveway and along the trail to escort the horses to the barn. He was in a very bad temper, and when he saw Rover under the wagon, he rushed at him savagely. There was a terrible yelp, and Frank Sherman's heart stood still. Tom pulled the horses up short—so short that they nearly sat down, as they were too well trained to rear themselves, and Frank jumped down and looked under the cart.

"It's your dog, Tom!" exclaimed Frank. "I'm afraid he's dead!"

Tom got down with considerable haste and ran behind the wagon to look at him.

"I guess you're right," he answered. "I never knew him to be so savage! The wheel must have gone over him."

The flies would never trouble the big, white dog any more. The windmill might go fast or go slow, he'd never hear it. He'd never attend any more dog parties nor bark at the man in the moon again, and the coyotes could take their ease and gaze at the moon in peace for all of him. The king of dogs was dead, and there was no one to take his place.

The big, white dog's master had him buried before the women and children found out what had befallen him, and Frank and Rover attended his funeral and listened to the men while they praised him and talked over his fine ancestors. Frank's breast was filled with joy, because it was the big, white dog that was dead instead of Rover; and Rover was very glad, too, and wagged his tail fiercely when the men patted him on the head.

"Poor Rover," said Tom, "I suppose he feels terribly. He looks as if he did! Say, youngster, what'll you take for yer dog? Hey?"

"O, I won't sell Rover," said Frank, hurriedly. "Come, Rover, we must go now."

The men smiled a curious smile and looked at each other slyly as Frank and Rover cut across the orchard toward the trail. And that was the end of the tricky white dog; but Rover yet lives, and is greatly beloved.

A CLEVER utilization of photography, for the purpose of correctly sighting a cannon, is due to the ingenuity of Marquis de Fraysseix-Bonin, a naval captain. He calls it the *tir optique*. The object to be aimed at being reflected on a plate, the marksman has only to bring the sight of his cannon on to the object reflected on the plate. This is done by a small, delicately arranged mechanical apparatus. The moment the pointer of this instrument touches the object on the plate the cannon is fired.

ROYAL

BAKING POWDER

Absolutely Pure.

A cream of tartar baking powder Highest of all in leavening strength.—*Latest U. S. Government Food Report.*

AGRICULTURAL NOTES.

CALIFORNIA.

Butte.

WILD FRUIT TREES.—Oroville *Register:* Geo. Gable returned from a two weeks' trip through the mountains of Butte this week. He is an experienced and observing woodsman, and for years has been accustomed to travel in all parts of the hills. He says there are many wild apple and peach trees that are bearing good fruit. These are usually found in the cool and shaded ravines or about springs where the roots of the trees can find moisture. The older trees that attained a good size ere cattle browsed them down, bear excellent fruit, but the younger trees are kept eaten down by cattle. He thinks that if the cattle did not destroy them, these trees would thrive and grow rapidly and that the woods would in a few years become filled with fruit trees. Where the peach pits and apple seeds were thrown down by miners in an early day, especially near the abandoned miners' cabins, these fruit trees are the most abundant. In most instances, the fruit is of an excellent quality and of good size.

TWO-THIRDS OF A GRAIN CROP.—*Register:* County Clerk Stilson recently vi ited the leading grain-growing sections of the county and says t ere is about two-thirds of a usual crop This is true of the whole section, while there may be exceptional cases where the full crop has been obtained. Chico, Nord, Dayton, Durham, Nelson, Biggs and Gridley were visited while on the trip, and for the whole section the grain will not average more than two-thirds of the usual yield.

Fresno.

FRUIT FOR CHICAGO.—Sanger *Herald:* The first shipment of green fruit from Sanger to Chicago went out from here this week. It comprised a carload of grapes from the Gray vineyard, five miles north of town, the fruit being carefully packed away in a refrigerator car. The freight will amount to more than $400, and the fruit will have to bring a good price to make it a profitable venture for the shippers—Messrs. Cook & Langley of Fresno. There is a space of two feet on top of the car to be filled with ice, which is put in several times along the route. The fruit is packed in crates, each crate having four 5-pound baskets of grapes. A car will hold 990 crates.

Kern.

PREMIUM PEACHES.—Bakersfield *Gazette:* The consignment of peaches with which C. A. Maul believes he will gain possession of the first prize at the Exposition at Chicago, was shipped by him last week. They were a handsome lot of peaches, some of them weighing as much as 22 ounces each, and were packed in wooden barrels, lined with cotton batting, and then filled with a preserving fluid. It is the intention to repack them in glass jars when they arrive at their destination.

THE EAST SIDE CANAL.—Bakersfield *Californian:* The work will begin at once on the canal and be pushed to completion by January 1, 1893. This will be welcome news to the settlers on the East Side lands, which are the riche t in the county, but have been almost valueless without water. The values in these East Side lands have appreciated within the past two weeks over 40 per cent, and when the canal is finished a great deal of this land will bring $100 an acre. This has been the most rapid appreciation in the values of land in the San Joaquin valley in the history of its irrigation system, and large fortunes will be made here in the next six months by shrewd men who had the foresight and faith in the canal project to get in, and bond at $10 and $25 an acre valuable pieces of land which lay under the canal as projected, for a few dollars per acre, which already commands $60 and $65 an acre.

Los Angeles.

ORANGE PROSPECTS.—Pomona *Progress:* The orange-growers are happy over the splendid prospects for the largest crop and best prices they have ever had. There is little doubt that the orange crop in Florida will be small this year, and careful estimates place the loss of fruit which dropped from the trees last spring at 2,000,000 boxes; while Louisiana papers state that a protracted drought and untimely frosts have destroyed all hopes of a large orange crop in some portions of that state. On the other hand, never were prospects more favorable for a large and fine orange crop in this section. Drive where you will, and the orange-trees are loaded with fine-looking young fruit. Riverside papers estimate the crop at a million boxes for the State. Whatever it may be, it is certain that in this locality, with a considerable acreage that will come into bearing this year for the first time, the crop will be much larger than ever before. The money which it will bring into this valley, added to the thousands of dollars that are being put into circulation here this summer, will make the Pomona ranchers the happiest agriculturists in the country.

Mendocino.

HOP NOTES.—Ukiah *Press*, Aug. 22: The delightful hop-picking season is opening up. By August 29th a large percentage of Ukiah's population will be in the fields. Visions of new things bought with money earned in the hop-fields delight the dreams of our young folk. Huse Burke began picking Tuesday noon. T. J. Fine and Berryhill Bros. began Thursday. D. G. Pitner will commence picking Sept. 1st. N arly all the growers will begin next Monday. Very little can be told about the yield as yet, but it is certain that it is not as good as last year. The quality is first-class. There is not a vestige of vermin or mold. The foliage is scant and the sun's rays have had full force in maturing; The price for picking fixed by the Association is $1.10 per hundred. Some are paying $1.20. The Chinese pick for $1, but the growers have to pay John's fare from San Francisco, which brings the price up to about $1.10. The picking is being done by whites, Indians and Chinese, in the ratio of about five, two, and one. Insurance companies are placing risks on hops at the yearly rate of $4.50 per $100. This is a basis rate of $2, with $2.50 added for hops in the kiln.

San Bernardino.

CHINO SUGAR.—Los Angeles *Herald:* Up to 6 A. M., August 15th, the Chino beet sugar factory had turned out this year 2,870,059 pounds of sugar. Of this quantity, 518,000 pounds was from syrups of 1891, and the balance was from this year's beet crop—2,352,059 pounds. About one-half of the entire quantity is mascrete or crude sugar, which will run between 80 or 90 per cent sugar. Upon this the Government pays 1¾ cents per pound bounty. The other one-half is raw sugar that has gone through a centrifugal machine. Upon this the Government bounty is two cents per pound. From present indications, this year's beet crop will amount to about 50,000 tons. For every ton the grower will receive on an average $4.50. This year 4000 acres have been planted to sugar beets, as against 2700 acres last year. This year the beets run about 15 per cent sugar, as against 13 per cent last year. Some of the beets will run as high as 20 and 21 per cent.

San Diego.

AN IRRIGATION PROBLEM.—J. S. Carter in *San Diegan:* The Colorado river is constantly changing its bed and course from two miles above, at and below the great break made by the flood of last year. The main stream is still taking to the west, cutting through the great cottonwoods; a part of it flows back into the old river near the easterly end of the big bend. From there up to the crevasse the old channels are entirely closed up with sand and driftwood. All of the small streams supplying Carter river near its source are nearly closed by drift and sand, although the late rise cut under the drift and let more water into Carter river than before. At one time there was not more than three inches of water on the bar. Below the crevasse there are immense piles of drift, which stop the flow of water and force it over to the east bank. Only for this the old channel of the Colorado would close up entirely. What a chance to irrigate all that country! There is hardly a square foot in the great desert that cannot be reached by the water that even now flows through the great crevasse in the river. Why not? The fall is 106 feet in 65 miles in a direct line. I say that every foot almost of the desert can be fully irrigated, and that, too, by the Colorado during the year. It carries water enough to water four such deserts, and then has enough to carry any steamer ever built at Yuma or the shipyards from the Grand canyon to the gulf. The Indians are putting in an immense crop for them, but the rats and cottontails keep them busy. The Indians put the entrails of fish (sic), stick traps, build walls of clay, and then are up all night beating tin cans, coal-oil cans, anything else to make a noise, and yet the pests come and destroy the corn, which the Indians keep replanting. I never saw such a growth of grass. The old Indians say that they never saw anything like it. It is from four to seven feet high and thick as it can stand. The wild hemp, which was just coming up two weeks ago, is from 10 to 12 feet high and almost as thick as the grass. All of the barren places, which for years have been like beds of ashes, or caked hard as an adobe, are covered with grass and cal te. Even the few sandhills here and there, in that which was a desert two years ago, are now hidden by an immense growth of grass, weeds and brush. In fact, the desert is transformed, and to-day looks more like a garden or field. So much for water. This shows what every inch of the great desert will be when it is once properly irrigated, as it will be, not far in the future.

Santa Clara.

FRUIT NOTES.—Cupertino Cor. S. J. *Mercury:* The unusual cold weather that prevailed last April shortened the crop at least 25 per cent. That was the estimate of the most conservative, while some claimed that it would be fully one-half. The unfavorable weather that has prevailed since, taken together with the lack of moisture owing to the scarcity of rain last spring, has cut a decided figure in this year's output; the estimate now placed by conservative men is about 60 per cent of last year's output of wine. The winemen are beginning to prepare for the coming season. Many who intended to increase the size of their plants have changed their minds, owing to the short crop. The prune crop is much shorter than at first anticipated. One prominent buyer told me last week he would be well satisfied if the growers were able to furnish him with two-thirds of what his contracts call for.

CANNING NOTES FROM LOS GATOS.—*Mercury:* The packing and drying business continues lively. The Los Gatos cannery has had extra trains from Fresno for the last eight days. The fruit is received here at 8 o'clock at night and by morning it is distributed and assorted and made ready for the army of workers. In five hours the whole lot would be prepared, packed, cooked and packed away ready for market. The company has had two busses, carrying 20 persons each, running to San Jose and back each day, to supply the demand for labor. In addition to this extra help the company has provided rooms, with matrons to superintend and cook, where 40 girls from distant towns have the privilege of homes while they work in the cannery. The cottages are within the enclosure, and every precaution is taken to make the rooms pleasant and safe. The business prospects of the cannery are excellent. Five thousand cases of apricots and 1500 of cling peaches were shipped to England last week. At these rates the large pack will disappear in a short time. The importations of fruit from Fresno seem to have been made necessary by the overland trade here, which has reached large proportions. The agent, Mr. Hook, thinks Los Gatos folks must look to their laurels. The grade of peaches required was two and a half inches, but a great part reaches three inches in diameter. Those in the East who think the fine pictures on the wrapping an exaggeration will be astonished to see the fruit a third larger. The company is now working at pears, having 160,000 pounds going through the ripening process.

Solano.

FRUIT SHIPMENTS.—Vacaville *Reporter:* At our request Harry Free, the agent of the S. P., has kindly furnished the statistics of fruit shipments this year up to last Thursday, August 24th. He says there have been sent East 383 cars of green fruit and 18 of dried. At the same time last year the amount of dried fruit shipped was greater, but the shipments of green fruit this year were in excess of the shipments at the same time last year. Looking at the possibilities of the entire season, we expect that these conditions will be maintained. There is not the same amount of dried fruit going to be shipped out, for the reason that prices will not justify so much drying as in the past. This will swell the shipments of green fruit this year to a point where, in our judgment, they will be in excess of last season's shipments. Last season, it will be remembered, we shipped 564 cars of green fruit East, and 151 of dried. From the number of cars already sent out, with the period of heaviest shipments yet to come, it will be readily seen that the record of last year will be surpassed.

Sonoma.

HILLSIDES AND MOUNTAINS RECLAIMED.—Cloverdale *Reveille:* There are many skeptics in this section who look upon the hills that surround this valley as utterly worthless, when in fact there are no more desirable locations for homes and fruit farms to be found anywhere in the State. The land, as a general thing, is loose and mellow, and will grow anything when cultivated. Springs of water abound in almost every quarter section, and there is more tillable land than anyone has any idea of, judging the steepness as seen from the valley. There are plateaux and small rolling hills, principally covered with black oak, madrone and manzanitas, which, when cleared, will be the best fruit land in this section. The only drawback to the hills is the inaccessibility to the desirable localities, yet this can be obviated by building practical roads. What can be done on the hills has been clearly demonstrated by B. Hemseth, whose hillside grapes are among the best grown in the district, and Geo. Bond, who has pioneered out a home on the mountains. His fruit has no superior in the State. We had the pleasure of eating some peaches grown by him, and they were really grand in both size and flavor. These hills are not only adapted to fruit-growing, but grain and alfalfa flourish in places. There are nooks and retreats where homes can be located of wonderful attractions.

WINE-MAKING.—*Reveille:* Wine-making will begin at Moulton Hill winery about Sept. 1st, the Burgundy variety being ready for the vintage. Mr. Albertz informs us that he will make very little syrup this year. He had an opportunity to contract 20,000 gallons of syrup, but the price would not justify paying the price asked for grapes, and consequently he expects to run a short vintage this year. He has been offering $9 and $10 per ton for grapes, and finding no takers, he is compelled to refuse all offers to contract syrup, and will only make up about 2000 gallons of extra fine Muscat syrup, which will be put up in cans for table use.

A ROYAL ORDER FOR CANNED FRUIT.—Petaluma *Courier:* The fruit-canning company received through the Swedish consul at San Francisco, an order for a large amount of canned fruit for the private household of the queen of Sweden.

Sutter.

CANNING AND DRYING.—Yuba City *Farmer:* The rush at the cannery continues. From 23,000 to 25,000 cans of fruit, principally peaches, pears and plums, are being packed daily. In a few weeks the heavy run will be over, but operations will continue for a month at least. Considerable attention is given to drying peaches, and the grounds are covered with trays of fruit. Over 200 tons of dried fruit have already been sacked, and there will be large quantities yet to dry. A carload of egg plums was received a few days since from San Jose for canning. Shipping is going on as well, a carload of canned goods being sent off this week to New York. The help this year has been excellent, and the largest run will be made this season, from present indications.

Tulare.

LARGE YIELD AND BIG PROFIT.—Hanford *Sentinel:* Mr. John Nehls, living near Armona, has 368 peach trees on 3½ acres of ground. They are of the Muir, Susquehanna and Crawford varieties, considered the best for drying purposes. Early last spring Mr. Nehls sold the product of the trees, whatever it might be, to Antonia Onesti for $75 per acre. The trees were set in 1888, hence are four years old, and Nehls thought that a good price. In July Onesti sold to a Chinaman for $100 per acre. Last Tuesday John Russell hauled in the dried peaches for the Chinaman, who had sold to Chas. King for 12 cents per pound. There were three loads, weighing in all 8584 pounds, which, at the price paid, brought the neat sum of $1030.08, or $294.31 per acre. Mr. Nehls sold because he did not feel strong enough to do the work. Onesti sold because he could make $25 per acre and not touch it. The Chinaman bought and made $194 31 per acre for his work of picking and drying. The Chinaman got the most of the milk in the cocoanut.

Ventura.

THE CROPS.—Hueneme *Herald:* Of the nine threshers that have been at work on this side of the river, all but four have been laid up for the season and these will finish up their work very soon. Now that the Conejo has been threshed out the yield up there is found to be better than was expected. The yield of some of the valley lands this year has been most remarkable. In former years 10 or 12 sacks to the acre was considered a good average yield, and 20 sacks was considered an immense crop. This year more than 30 sacks have been threshed out in many localities. As noted in another column, 480,000 empty bags have been received here this year, and making liberal allowances for the number used or to be used for sacking wheat and corn and for grain hauled to points on the line of the railroad, we think 300,000 bags about expresses the amount of barley to come here this season. The barley is unusually clean and plump, and the entire lot will probably average fully 110 pounds to the bag.

OREGON.

CROP NOTES.—Crop-Weather Bureau, Aug. 23: Western Oregon—Springs and wells are said to be running dry. Threshing of fall and early spring wheat is rapidly nearing completion. Reports of the improvement of late-sown grain are still coming in, though it is conceded that the crop will be light. No decided change in the condition of hops is noted. In Marion county, there is yet some oats to be cut. The potato crop is almost beyond redemption now and no amount of rain can improve it. What little fruit there is still standing on the trees is in need of and would be benefited by well-distributed showers. Eastern Oregon—There has been no rainfall at all throughout this section since last report, and the need of a good rain is badly felt in the northeastern counties. Although the fall and early spring wheat crop is being harvested in most counties, in portions of Wallow county very little grain has been cut so far except rye. Threshing operations are just beginning. In Union county, late-sown grain is heading and ripening very short and uneven. More reports of the excellent condition in which the hay crop is being put are being received daily. Corn and potatoes continue to suffer for want of rain. It is doubtful if the latter could receive any great benefit from moisture at present.

HOP-LOUSE REMEDY.—Hillsboro *Independent:* In conversation with a local hopgrower a few days ago, he said he had but few lice on his vines, and that he did not spray but fed his parasites by the old German method. He explained that way was by sprinkling slacked lime. He first slacked lime by placing in a pit and applying water enough to reduce to a dry powder, the lime to be covered so as to retain all steam and gas. When cool, and during a smart breeze which turns the leaves up, he throws the lime powder against the vines. Watching for a wind from the opposite direction, he repeats the dose. Thus through the summer and early fall he guards his yards. He prefers a few lice to the villainous whale-oil soap compound used for spraying purposes.

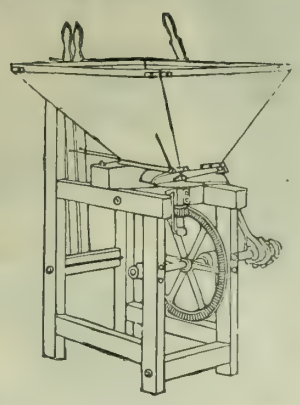
FRUIT CROP IN WESTERN OREGON.—Salem *Capital Journal:* Fruit of all kinds is scarce, and only enough to supply the home markets can be found in any part of the country. The only variety of prunes which did well is the Petit. Wherever any tree can be found of this kind they are full of fruit. Of course, apples are not plentiful, as hardly any of the farmers are spraying their trees, and the half-formed fruit falls off in vast quantities on account of the grub of the codlin moth. What few pears are found are of fine quality and quite large. Pears were caught by the frost in full bloom last spring, and consequently very few are on the market. Plums and peaches are a minus quantity. As far as the trees are concerned, they did well by attaining a good growth of foliage.

ARIZONA.

CROP SUMMARY.—U. S. Weather Bureau, Aug. 22: Crops have made an exceptional growth in southwestern Arizona during the past seven days. The weather has been especially favorable during the year for the growth of all vegetation, and the Colorado valley is teeming with healthy and vigorous vegetation. Fresh fruit is abundant, and field crops and citrus fruits are looking well. In extreme western Arizona, the weather has been too hot for the growth of melons, which wilted even with plenty of water. Alfalfa and other crops are looking well. In the vicinity of Prescott the weather has been favorable for the growth of vegetables and grapes, peaches and other fruits. The grass on the ranges is in need of a soaking rain. Farther east, in the vicinity of Farley's Camp, light showers insufficient for range grass have fallen. Heavy rains are much needed. Good rains have fallen in the vicinity of Dudleyville, in the northern part of Pinal county, which have influenced the growth of grasses and field crops. Plenty of water is available for irrigation. In the vicinity of Payson, and in the southeastern part of Yavapai county the drouth continues. Good rains would be of great value. Showers in the vicinity of Mt. Huachuca have brightened the grass in some localities, but in others grass is suffering from drought. In the vicinity of Tucson, heavy rains have fallen which will be of great benefit to the cattle interests. Cattlemen are wearing a pleasant smile. In southeastern Arizona, in the vicinity of Wilgus, rain is badly needed. Crops of corn and other vegetation irrigated are looking well, but grass is beginning to wilt; and as it is now getting late, farmers are entertaining serious apprehensions that grass will not be long enough for hay, which source of feed is depended upon almost entirely for the sustenance of cattle.

GEM SEEDERS.

REDUCED PRICES.



NO. 1—RUNS WITH CHAIN AND BEVEL GEAR.....$16 00
NO. 2—RUNS WITH CHAIN AND BELT GEAR..... 20.00
NO. 3—RUNS WITH ALL GEARS..... 23.50

All our Gems have Armstrong's Patent Force Feed, which makes them worth $5.00 more than any similar seeder. We charge no more for it. They will sow about 60 feet wide and about 15 acres per hour.

THEY ARE BETTER THAN EVER.
THEY COST LESS THAN EVER.
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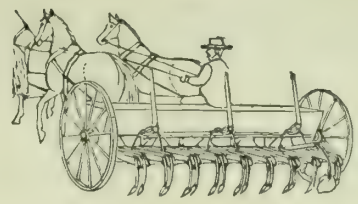
GORHAM

SEEDERS AND CULTIVATORS COMBINED.



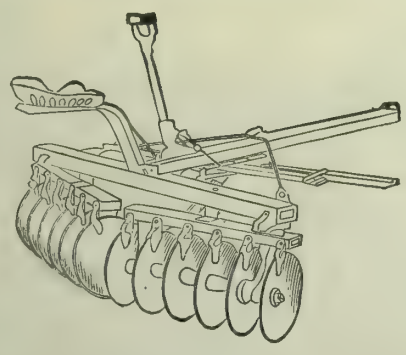
6 TO 14 FOOT.
11 TO 26 SHOVELS.
2 TO 6 HORSES.
8 TO 40 ACRES PER DAY.

WITH CULTIVATOR.....FROM $100.00 TO $175.00
WITHOUT CULTIVATOR.....FROM $75.00 TO $131.25

Cultivator raised in sections—No heavy lift. Flat Scatter used on all sizes. We have sold them for over 15 years. We know they will do good work. We make them ourselves and know what they are.

CLIMAX DISC HARROWS

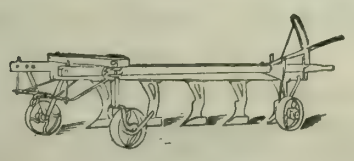
WITH AND WITHOUT SEEDERS.



We have sold them for years. They cut from 4 to 12 feet, use from 2 to 4 horses, have from 8 to 24 discs, and cost from $37.50 to $95.00. The Seeders cost from $20.00 to $35.00.

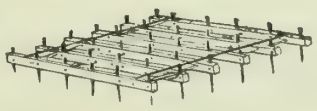
IMPROVED GRANGER GANGS.

WITH OR WITHOUT SEEDERS.



The best Bench Plow now in use. Rules well. Draft very light.

BENICIA WOOD BAR HARROWS.

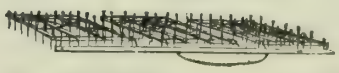


Thirty to 100 teeth. Cut from 6 feet 6 inches to 13 feet. Have one-half by five-eighths steel teeth, and cost from $10.00 to $31.00. Quality is extra fine.

EUREKA WOOD BAR HARROWS

One to five sections. 30 to 150 teeth or 24 to 144 teeth. Made with one-half by five-eighths steel teeth. Extra quality throughout.

BENICIA PATENT ANGLE STEEL HARROWS.



One to four sections. 24 to 96 teeth; cut from 4 to 16 feet. Cost from $10.50 to $48 complete. Quality guaranteed. Weight from 80 to 260 pounds according to number of sections.

ALL THESE ARTICLES MADE BY THE

BENICIA AGRICULTURAL WORKS, Benicia, Cal.

BAKER & HAMILTON SAN FRANCISCO. .....SACRAMENTO.

Patrons of Husbandry.

The Secretary's Column.

By A. T. Dewey, Secretary State Grange of California.

TWO ROCK GRANGE ON COOPERATION.

Two Rock Grange has put forth commendable efforts in the way of Grange cooperation, and presents the following statement and resolutions, which will be mailed to every subordinate Grange in the State from this office:

Worthy Master and Members of — Grange, P. of H. of Cal.: Two Rock Grange, having practiced for nearly two years cooperative buying, and having made it an unqualified success as far as buying groceries, feed and a few other articles are concerned, but *not* having been able to satisfactorily buy our farming implements, vehicles and general hardware on the same plan, we have resolved to lay the enclosed resolutions before the next State Grange.

In order that you may better understand why we have become desirous of extending our system, we will make you acquainted with some of the practical results of our business transactions for the year ending Dec. 31, 1891.

We bought together groceries to the amount of $1246.41; the average saving amounted to 20 per cent, equal to $311.60. We also bought some hardware and made a very satisfactory saving, amounting to $37.56. Of coal oil we bought some $400 worth, a saving of 15 per cent, or $65.

We have thus saved $414.16, exclusive of what we saved on flour, feed and a few other articles, and also exclusive of what was saved by using the trade-card.

It should be remembered in this connection that Petaluma, where we otherwise do our trading, on account of its favorable location, sells goods closer than most towns, and that the saving made by us would be much greater in most other localities.

As mentioned before, we are not alone able to buy our implements, etc., as cheaply as we think it possible if we cultivated a closer commercial relation between ourselves and the manufacturers of our tools. It is for this purpose we ask your hearty cooperation, knowing that if it can be accomplished, a great saving can be made and we will be able to buy more labor-saving tools, thus directly benefiting ourselves and the manufacturers, and, indirectly, the whole country.

Hoping this will receive your most serious attention, we remain, with the kindliest greeting from all the members of Two Rock Grange, sincerely and fraternally,

JOHN R. DENMAN, W. M.
GEO. W. GASTON, Sec'y.
Two Rock Grange, Petaluma P. O.

RESOLUTIONS TO BE LAID BEFORE THE STATE GRANGE OF CALIFORNIA AT THE SESSION OF 1892.

WHEREAS, Two Rock Grange, having given cooperative buying a practical test, and having found it to work in every way satisfactory, so far as tried, and

Whereas, Having found that in one important item, to wit: the buying and selling of farming implements and general hardware tools, we have *not* been in ourselves strong enough to be able to buy to as much advantage as we consider it possible to do if we could with a determined cooperation of the subordinate Granges of California, buy as directly from manufacturers as possible, and,

Whereas, We think, that inasmuch as thousands of dollars could be saved to the Patrons of California by such a combination, it would be to the great advantage of the Grange and vastly increase its membership if we could accomplish such results, therefore be it

Resolved, That Two Rock Grange recommends the creation of an energetic committee, whose sole duty it shall be to try to bring this about, said committee to be called, The Committee on the Supplying of Farming Implements, Hardware, Tools and Vehicles.

PESCADERO.

Past Master Steele writes: Pescadero Grange had a most enjoyable meeting Aug. 20th. The third and fourth degrees were conferred, with the usual Harvest Feast. Crops are good in this section, and we are hopeful, although prices of farm products are low. There is no conflict between employers and employes here, so far as I know. It is to be hoped that reason will prevail in other sections of our country in the near future, and to amicable relation of capital and labor will bless our country with peace and prosperity. I believe in our Grange motto, "Individual happiness depends upon general prosperity."

FROM OUR ACTIVE MASTER.

The following contains so much in a short space from Master Davis, that we take the liberty of quoting his own words: I send MS. of my address in separate cover. Please send proof sheet to me at No. 21 Glen Park avenue, S. F., where my wife will be. She will forward same to me at some one of my appointments. I open the campaign at Sissons next Saturday night. Will not be home again during the month.

J. H. Brigham, Master of the National Grange, and E. W. Davis, Overseer of the National Grange and Master of the California State Grange, are among the very able, popular and worthy Patrons nominated for Members of Congress. They will receive the support of many Patrons irrespective of party, and the country will be fortunate when such Patrons are elected to office.

THE annual report of the Secretary of the State Grange will show a remarkably favorable year financially, as well as in some other respects, for California Patrons of Husbandry.

HISTORICAL EXHIBIT.—We sincerely regret that the opportunity seemed unfavorable for making a successful historical exhibit of the Patrons of Husbandry at the State Fair, which opens in Sacramento next month, and so no general effort will be made.

HATTIE S. JONES, chairman of the Committee on Woman's Work, has recently sent each Grange an interesting essay on the "Political Possibilities of the Farmers," from the pen of Mrs. M. D. Brainard, of San Jose Grange, who chose that subject as one of special importance to the farmers, and suggests its reading, to be followed by discussion in the Granges. Sister Jones' circular closes as follows: "Sisters, again a Grange year is drawing to a close. On the first Tuesday in October the California State Grange will convene in twentieth annual session at San Jose. That the State Committee on Woman's Work may be enabled to present a full report of the state of the work intrusted to us, you are requested to formulate as complete a recapitulation as possible of your labors for the present year and forward it to the chairman of that committee not later than September 25th. A summary of their report will be transmitted to the National Committee, and we desire it to be of such a character as will reflect credit on California's Matrons. Whether much or little has been accomplished, we wish to hear from each subordinate Grange, and trust you will recognize the importance of complying with this request."

TO SUBORDINATE GRANGES.

August 29th we forwarded to the Secretary of each subordinate Grange a supply of blank receipts for Patrons visiting the State Grange to have filled out and signed by the local ticket agents of the S. P. R. R. Co.

Purchase a first-class, unlimited ticket to San Jose and take receipt from the agent, and have it certified by the Secretary of the State Grange at San Jose. This certificate will enable you to buy a return ticket for one-third rate. The same rates have also been granted by the S. F. & North Pacific (Donahue) R. R.

We have also sent to the Secretaries blank forms of application for the fifth and sixth degrees, which will be conferred on Thursday evening at the State Grange.

A circular will soon be sent from the Secretary's office containing one or more proposed amendments to the constitution, full particulars in regard to the excursion rates to the State Grange, and other matters of interest to all Patrons.

It is important that full meetings of subordinate Granges be held. Every Patron should be present to discuss matters which should be brought before the State Grange. Among these questions will be that of cooperation as presented in the circular of Two Rock Grange, published in this issue.

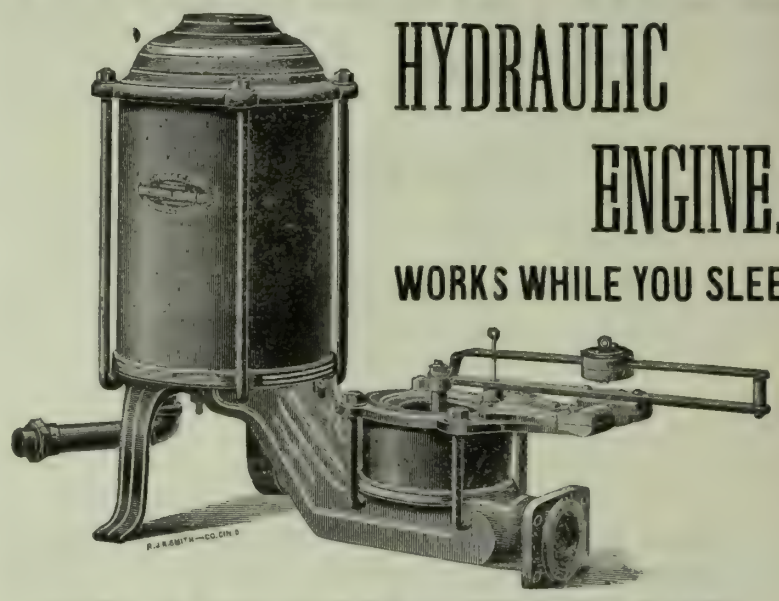
Every Grange which has not taken action on the Patrons' Relief Association, endorsed, and its constitution adopted, by the last State Grange, should give that organization a fair consideration and have the Master report on the same at San Jose. If possible, have the report supplemented with a good number of applications for membership. This would be a practical demonstration of the views of at least some of the members in favor of protection and cooperation.

"THE POLITICAL condition of affairs is to be deplored by every patriotic citizen. So long as spoils is the motive power that controls our conventions, we will have a horde of spoliators to make and administer our laws—a set of political hyenas ready to do the bidding of corporations that prey upon the legitimate interests of the country. The people have it in their power to correct these abuses. It is their votes that elevate the demagogues to position and power."—Exchange.

CALIFORNIA If you want to know about California and the Pacific States, send for the PACIFIC RURAL PRESS, the best Illustrated and Leading Farming and Horticultural Weekly of the Far West. Trial, 50c for 3 mos. Two sample copies, 10c. Established 1870. DEWEY PUBLISHING CO. 220 Market St., S. F.

RIFE'S AUTOMATIC HYDRAULIC ENGINE.

WORKS WHILE YOU SLEEP.



THE RIFE HYDRAULIC ENGINE

Is the most simple and efficient machine yet devised for elevating water for irrigation, filling railroad tanks, supplying mills, factories, dairies, stock yards, country residences, small towns and for various other purposes. This ram is self-operating, constant in action and is not only much more efficient than anything of the kind ever put upon the market, but from absence of wearing parts, more durable and every way reliable. Many may be referred to that have run for years elevating water in some cases from 100 to 300 feet without any attention or expense in the way of repairs.

These machines have already come largely into use in all parts of the country and are rapidly superceding every other device for the purpose. They will work effectively under a head as low as two feet and for every foot of fall will elevate 20 feet. By means of an adjusting lever the capacity of any of the various sizes can be reduced 50 per cent or more, as may be desired, to provide for a variation in water supply, without disadvantage or loss in efficiency.

WATER RAISED AND WASTE.

The fall from the spring, stream or other source of supply to the engine determines the height to which the water can be elevated, as well as the the relative proportion between the water raised and wasted, the quantity raised varying according to the height it is carried and the distance conveyed. For ordinary purposes it is sufficient to say that with a discharge pipe 1000 feet in length, one-sixth of the water can be raised and discharged at an elevation five times the height of fall or one-twelfth ten times the height of fall.

Parties writing for information should give the quantity of water that can be supplied to the engine, either in gallons, cubic feet or miners' inches; the head or fall from source of supply to point where the engine is to be located, length of drive pipe, height to which the water is to be raised, distance from engine to place of discharge and the quantity of water it is desired to elevate. No reliable information can be afforded without an explicit answer to these inquiries. Address:

The Pelton Water Wheel Co.,

General Western Agents, 121 MAIN STREET, San Francisco, Cal.

WHITELEY MOWERS.

Made in the following Sizes: 4 Feet 6 Inch Cut, 5 Feet Cut, Special Wide Cut.

The Best Mower in the Market. More Good Points Than Any Other.

SEE THIS MOWER CUTTING HOOP-POLES AT THE STATE FAIR.

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Write for Our New Catalogue. S. E. Cor. Market and Main Sts., San Francisco, Cal.

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The only Reliable and Efficient Powder for Stump and Rock Blasting. Railroad Contractors and Farmer use no other. As others IMITATE our Giant Powder, so do they Judson, by manufacturing an inferior article.

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The Giant Powder Co. having built Black Powder Works, with all the latest improvements, at Clipper Gap, Placer County, known as THE CLIPPER MILLS, offer this powder and guarantee it the best.

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INFORMATION FOR SETTLERS!

The members of the Kern County Land Company have a national reputation for wealth, business and financial ability. These facts set the matter of reliability at rest. The company's capital stock is $10,000,000.

They have 400,000 acres of arable, irrigable lands upon which the sun shines almost constantly; and their enormous irrigation system renders them independent of the annual rainfall.

A clear title; rotation, variety and certainty of crops; easy terms; availability to persons in moderate circumstances; ground ready for the plow—no stones nor thistles; good society; schools; churches, etc., are a few notable attractions of this region of country.

Kern is the largest county in the San Joaquin Valley. It has the finest climate for curing and drying fruits, etc.

The 400,000-acre territory of the Kern County Land Company is the pick of the county.

Its area is 5,184,000 acres.

Has the largest irrigation system in America.

The home of the peach, French prune, pear and raisin grape.

Planting and harvesting can be carried on every month in the year.

No rocks, hills or stumps on the land.

A failure of crops is unknown on irrigated lands.

Kern county fruits take the first prize at the State Fair.

Land can be made to pay for itself in less than three years.

Grows more alfalfa than any other county in California.

The advantages of good soil and plenty of sun, which occur in the Kern Valley, would have been of little avail but for the third and all-important one of an abundance of water from never-failing sources.

Through 300 miles of main canals, and 1,100 miles of laterals, the great Kern river furnishes enough moisture to slake the thirst of the 400,000 acres already referred to.

Drought is out of the question.

The system has been constructed in the most careful and scientific manner. Some of the canals are 125 feet wide and six feet deep.

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BY BUYING FROM US.

WE SAVE YOU FROM 25 to 50 Per Cent on

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BUGGIES which are good and substantial, finely finished and fully warranted, for $75.

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HARNESS of all kinds at all prices.

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FRUIT TREES. FRUIT TREES.

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CONSIGNMENTS OF GRAIN, WOOL AND ALL KINDS OF PRODUCE SOLICITED.

Money advanced on Grain in Store at lowest possible rates of interest.
Full Cargoes of Wheat furnished Shippers at short notice.

ALSO ORDERS FOR GRAIN BAGS, Agricultural Implements, Wagons, Groceries and Merchandise of every description solicited.

E. VAN EVERY, Manager. A. M. BELT, Assistant Manager.

HORTICULTURE.

The Almond in California.

NILES, Aug. 25, 1892.

TO THE EDITOR.—After a week's illness I rise to a personal explanation, called for by your kind notice of my *Popular Science Monthly* article on almonds. The criticisms you make are certainly just, as applied to the condensed form of the article. I do not know who my condenser may be, but I am sorry I did not, as I intended to, send you the printed article itself.

I mentioned the red spider, but may have erred in underestimating the trouble and expense of getting rid of it, as well as the damage it does if not got rid of. So I am not responsible for the false statement that the almond has no insect enemies.

I also stated that excessive or unskillful bleaching injures the meat, and how this result is to be avoided.

I named several other varieties of the almond, and intended to speak of several more, as soon as I got certain information which I lacked when the manuscript was forwarded. The same circumstances which have prevented my writing for the RURAL PRESS during so many months, prevented my carrying out this plan. I hope I did not convey the idea that the seedling paper-shell named is a leading variety as regards acreage. I should really like to know as to these new seedlings, which kinds are now being planted to the greatest extent, and which are proving the most remunerative. Nursery catalogues are neither definite nor reliable sources of information on these points. The nurserymen's books of sales would be conclusive on the first point, and on the second the testimony of orchardists would be good. I should like to see some of it in the columns of your paper. It would certainly be valuable information of which all prospective almond-planters ought to be in possession. The whole country is interested in having its almond orchards planted in the best varieties. It is so in all farming. Who can estimate the loss we all sustain from the fact that stockraisers are careless or uninformed as to breeds?

My condenser seems to make me say that sacks cost the almond-growers of the State $2,000,000. This was the estimate I put on the cost to producers of all kinds of sacked produce.

I must thank you for the compliment of giving my article so much space, and also for correcting a few of the errors in its condensed form. But they are such as I should be sorry to have your readers think me guilty of, hence this correction, if I may so call it, though I am pleased to observe that you took care to hint that perhaps they are my condenser's and not mine, for which also I am constrained to express my cordial thanks.

If they cause discussion which will call forth information of lasting benefit to the orchardist and the State, I shall not feel so bad after all. HENRY J. PHILPOTT.

How and When to Prune.

An essay read by I. C. Wood of Ontario at the Chino Farmers' Institute.

By request I prepare this paper, "The Pruning of Deciduous Fruit Trees." So much has been written and said, and so well, I fear this paper, at least in part, will only be a repetition. I will confine this article, however, to a few of the leading varieties of deciduous fruits and those that are planted most extensively and seem so well adapted to this immediate section. The same rule laid down as a system to follow can be applied to most of the deciduous varieties of fruit.

First, I would impress upon the average planter the importance of selecting good, strong, young trees. One year old from the bud, if well-grown, is the proper age. In fact, with the exception of the apple and pear and cherry, I would not accept trees over one year old from the bud. The plum, peach and apricot, if properly grown and not too much crowded in the nursery row, should be 3½ to 5 feet high, stocky and well-branched. Why I object to selecting an older tree is not because a tree two, or even three years old cannot be transplanted safely (I would except the peach or apricot and plum if worked on the peach root) and the results entirely satisfactory, providing the plant has had space enough to grow in and the head properly pruned and shaped—a thing that I think is impossible, with few exceptions to find in the nurseries of this State, but because the average planter, as well as grower, is not educated up to the importance of paying or willing to pay for trees properly shaped at the right time and place in the nurseries and under the skillful hand of the nurseryman.

Select, as I have said, trees one year old from the bud of peach, plum or apricot. Lay your block of ground into squares of, say, 15 to 20 feet each way—15 I believe enough for the peach and plum and 20 for the apricot. When set, which should be during the month of February or March, go carefully over each tree and cut all side-shoots close to the main stem, after which cut that down also to within 18 inches of the ground. Do not set your trees too deep; as a rule very little, if any, deeper than they were in the nursery row, which can be easily seen by the light color of the bark which was under ground. Sift the soil carefully among the fine and fibrous roots, but leave them in as natural a position as possible. After the roots are all covered, firm the soil with the feet as solid as possible; in fact, plant as solid as a post, drawing some mellow soil about the stem as a mulch when finished.

If all is well, your 18-inch stub in due season will put forth many shoots all along the stem. Rub all off as soon as they get an inch or so in length, except, say, three; leave these on opposite sides near the top. Allow these to grow the first season at will, keeping off all others, from time to time, as they grow which will not amount to much after the second removal. The second pruning should be performed, if possible, just previous to the pushing of the next season's growth, as, indeed, all pruning should be, which allows but a short time for the severed points to dry back before the uprising sap supplies the wounded part with moisture, when the healing process at once sets in. While this is not of much importance where only small branches are removed, it is of vast importance where large wounds are made, especially on older trees or varieties that are sensitive to the pruning-knife, as the cherry.

The branches that have made their first season's growth should have made from two to four feet each; these should again be cut back fully two-thirds of their growth, and each branch in turn allowed to make from two to three branches each, which at the end of the second season will average three feet or more, and your trees will have from six to nine strong branches; each of these branches will have many side or fruit-bearing shoots, and the plant, if properly cared for, strong enough to ripen its first crop the first season after setting. These growths in turn should be cut back from one-third to one-half, according to strength, and the stronger side-shoots accordingly, always bearing in mind to maintain a pyramidal shape to the form of the head, which to maintain successfully it will be necessary to shorten in the upright branches the more severely, especially as our trees get older the tendency of sap is to go to the extremities.

This rule for pruning will apply more particularly to the peach, prune or plum and the apricot, and if followed up with reasonable perseverance the first three or four years, our trees will become so compact, the main branches so rigid and the bearing branches so close to the strong wood that we will suffer very small losses with our trees blowing to pieces or splitting down, as we now so often see where trees are allowed to grow at will and carry the major part of their loads away out on their extremities.

Trees when once into full bearing will not require often very severe pruning, as the rampant wood growth will be very much lessened; however, a careful cultivator will look over his orchard every year, shorten in the stronger growth, remove dead branches and thin out such as are becoming too thick as well as unnecessary suckers. The apple, pear and cherry, however, during its first and second season will not yield as readily to severe cramping as the other kinds named, nor will it be neccessary. The cherry, especially the Bigarreau or Hart varieties, should be shaped the first summer in the nursery rows by pinching out the leader when a couple of feet high, and thus made to branch at the start, as it does not break readily from old or ripened wood like the peach or apricot.

Summer pruning, if done at the proper time, has some advantages, and on the right kind of subjects brings fine results, but should be confined to the more vigorous sorts. The shortening of the summer growth tends to check the plant in what may be called the unnecessary development of wood-growth and the more perfect development of fruit-buds by arresting the excess of sap or checking it in its wild career of wood-making which we see in the strong-growing apple, pear, plum, cherry, as well as some varieties of the apricot.

Root-pruning will accomplish the same results, or in some soils slack cultivating may tend to the same end, as the object is to check excess of wood growth; but in most cases this excess may be confined to individual trees or varieties in the orchard, while others need every encouragement in the way of good culture; therefore it may be better to summer-prune and thus check wood-growth and encourage fruitage by the encouragement of fruit-buds. Much more could be said about pruning and the field could be widened so as to take in the smaller-growing deciduous fruits, as the current, gooseberry, blackberry and raspberry family, as well as the dwarfing of those treated on, but as I understand it, information is more generally sought by those who make the production of fruit a business in a commercial sense. Therefore I have confined this paper more especially to these classes.

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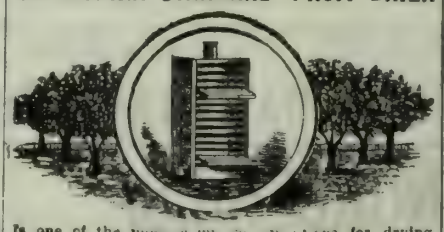
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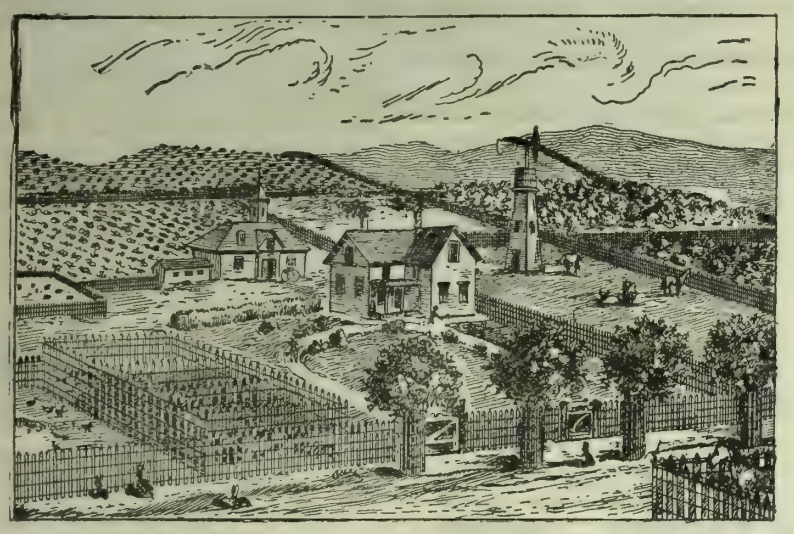

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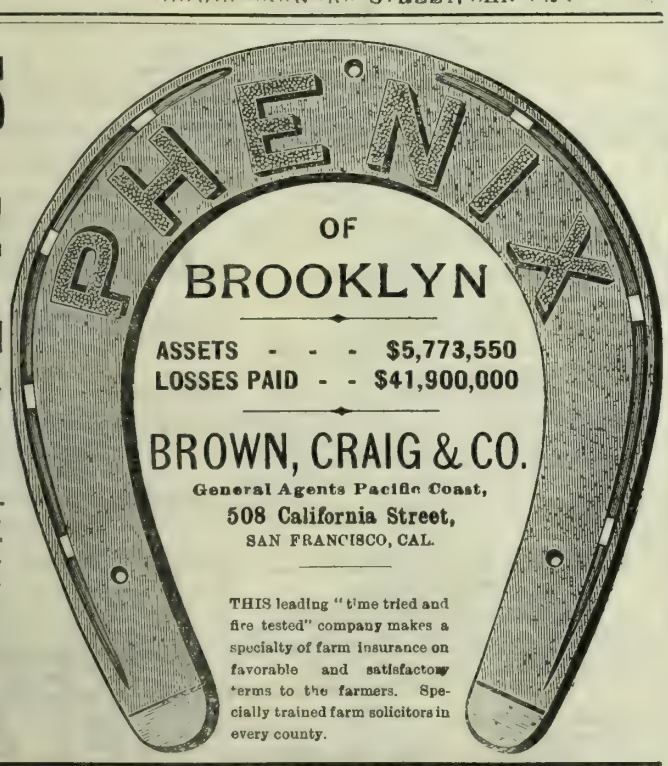

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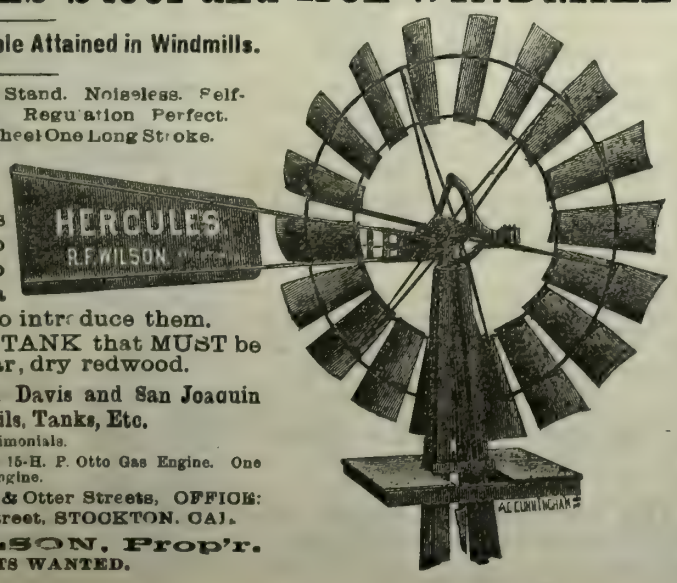

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Preservation of Eyesight.

We have frequently in these columns, says *Optician*, given hints and advice concerning the care and preservation of the eyesight in middle life and old age. Up to the present, however, we have not pointed out that the excessive use of tobacco not only weakens the muscles of the eye, but also produces a lowering of the acuity of vision and a form of color-blindness. In fact, among the sources of the greatest trouble to the eyesight, strange as it may appear, is the chewing of tobacco. The excessive use of wine, spirits or beer, the indiscriminate administration of quinine, the use of cosmetics for heightening the luster of the eye, and mixtures for dyeing the hair and eyebrows, may also be ranked among the destroyers of vision, and there is a case on record where a diminution of vision has been traced to the wearing of an artificial wreath of flowers.

Another source of failing vision may be traced to impeded circulation. The wearing of tight neck covering, such as collars which are too small, or shirt-bands or neckties tightly drawn, should be avoided, as they prevent the downward column of blood returning to the heart, and dilatation and development of disease is likely to follow. The same rule holds good of constriction of other parts of the body, particularly the waist. Another most serious source of eye strain is constant reading in railway carriages, which is the practice of nearly all business-men in going to and from their offices, and the injury to the eye from this cause alone is incalculable.

Nothing gives tired eyes greater relief than a green disk or square of sufficient size suspended on a direct line of vision at or against a wall on which the eyes can rest; but best of all to look upon is a green grass plot or green trees. We advance the suggestion that it would be a public boon if our magazines were printed on paper of a neutral tint, and the drop-curtains in theaters should have scenes painted on them showing great perspective. It is a rest to the eyes after the contracted effort in trying to watch the facial expression or eyes of an actor to look upon such a picture. Many theaters have drop-curtains in which perspective is absent. The result is that no relief is given the eyes after each act, and people with the least visual defect always suffer from eye strain after spending an evening in such places of amusement.

After the last epidemic of la grippe, we were particularly impressed with the large number of people complaining of the loss of power of the converging muscles of the eye. Upon investigation, we found that while these patients were confined either to bed or home, they would read incessantly. The result of this overtaxation was weakened eye muscles, and so long as they remained unsupported by lenses the patient suffered with pain over the eye region, headaches and other evidences of eye strain. Individuals suffering from any depressing disease should be as guarded as to the length of time they read or use their eyes on straining work as they are with regard to physical exertion of any kind. Fresh air and a moderate quantity of light are great essentials to good eyesight. High temperature helps to ruin people's eyes more than is generally known, while too much light, especially if it be reflected, is particularly injurious.

The Earth's Elements.

The planet, as the storehouse of material for every construction, natural or human, yields a certain number of elements. About 64 may be accepted as the number hitherto discovered, and these certainly are all that are of any mass or quantity. Out of these for structural and working use only about one-fourth are employed either by nature or by man. Nature uses largely four gases: Oxygen, nitrogen, hydrogen, chlorine. She uses also largely two inorganic, nonmetallic bodies, carbon and sulphur. She uses metals, calcium and iron. She uses one metalloid, phosphorous. Man in his work uses all these elements, with some others. Nature uses iron sparingly; man uses it largely. Nature uses the metal calcium largely, letting it enter into the construction of the bone of every skeleton of animal; man uses calcium in a rough way, in the formation of buildings, in the compound form of lime, together with other metals in the grand storehouse, tin, copper, and, lately, aluminum, substances which nature shows no preference for in any of her artistic and mechanical works. Man also uses zinc, lead and mercury, for which nature has no special employment that is obvious to us.

Man uses carbon for the same purposes as nature uses it. He employs it as fuel; so does she; but he in the crude form of coal, from which, also, he produces for other purposes different useful products artistically applicable as coloring substances, in which art, as he may one day find out, he is following some undiscovered natural design. Man uses the same elementary gases as nature does, with others that she does not employ with the same intention. Both use oxygen for sustaining combustion, but nature uses it systematically for construction, which man does not, Man uses hodrogen for combustion as nature does, but not for construction. Man takes advantage of nitrogen for concentration of energy; nature takes the same advantage, by which hydrogen, though negative, becomes the most important of vital structures; but she does more, she makes nitrogen constructive as well as concentrative, an art man has not attained.—Longman's Magazine.

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FERTILIZERS.

A careful study of the soil, and the growth and development of whatever may be put into it, is something that should occupy the spare time of all farmers. As more intelligence is, from year to year, being applied to working the ground for all it is worth, the subject of fertilizers—reliable and adapted to different soils and conditions—becomes one of prime importance. Visitors to the State Fair at Sacramento this month are advised to pay especial attention to the exhibit of the Mexican Phospbate and Sulphur Co., of which H. M. Newhall & Co. of 309-311 Sansome St., San Francisco, are agents.

ATTENTION

Is called to the advertisement in this issue of Rife's Automatic Hydraulic Engine or Ram. It is being introduced on this coast by the Pelton Water-Wheel Co. Judging from the strong testimonials of those who are using this Ram in various parts of the country, its success in the Pacific States will speedily follow its introduction

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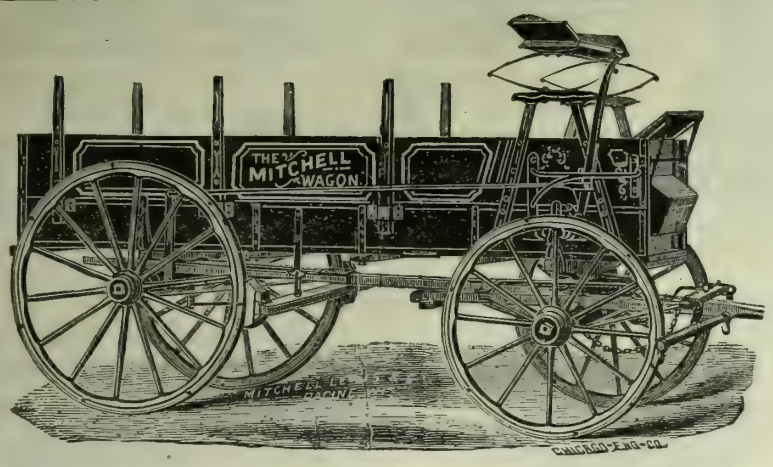

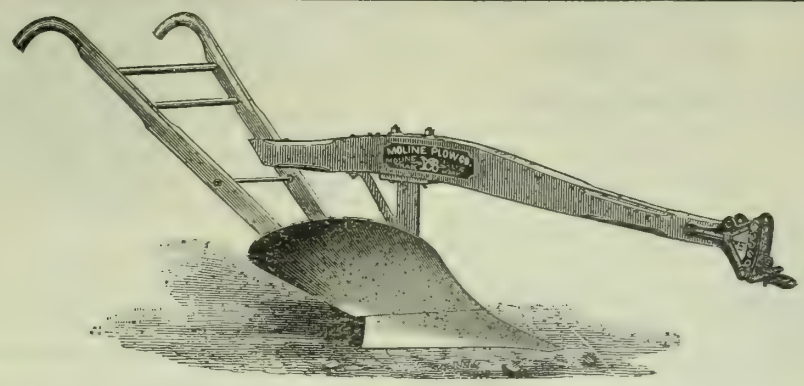

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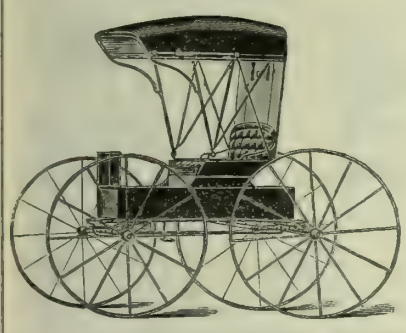

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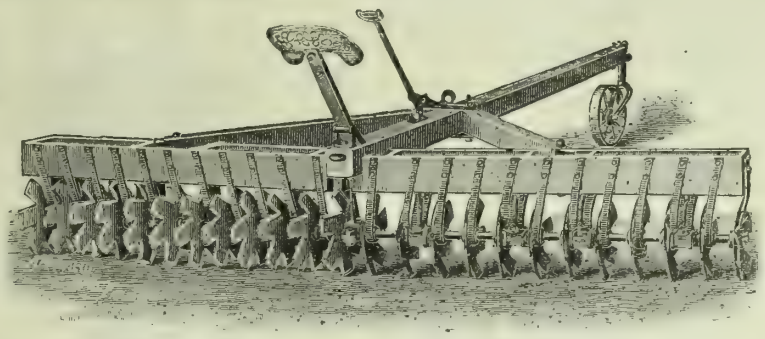

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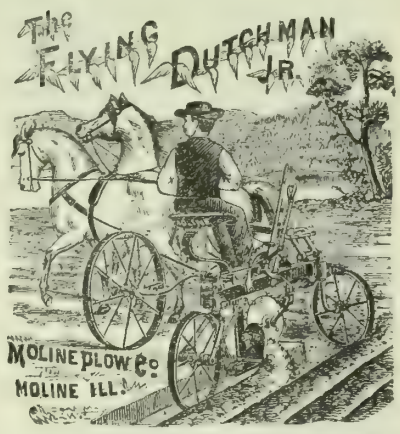

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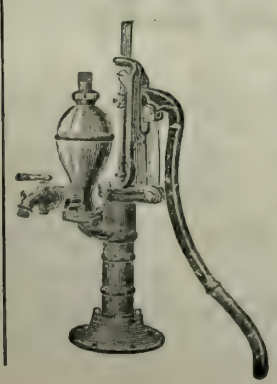

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The Dairy.

Humboldt Alfalfa.

LARIBEE, Aug. 19, 1892.

TO THE EDITOR:—Alfalfa is no strange sight in the valleys of this county, and it is also grown on the foothills along the ocean. But back in the interior, where there is sufficient warmth to raise the choicest prunes, peaches and grapes, it was taken for granted that alfalfa would be out of its element.

Last week Mr. A. J. Fairbanks, of the Fort Seward ranch near Blocksburgh, showed me a field of alfalfa that he sowed in 1886, that was about six inches high after having cut three hay crops this season. Mr. Fairbanks had this strip of land planted in corn for two years before sowing alfalfa, and the ground was entirely free from weeds and in excellent condition. He plowed the ground twice, and about ten inches deep, then cross-harrowed and sowed one-half the usual amount of barley with the alfalfa to protect the latter from frosts. The alfalfa and barley were sown at the same time, and then harrowed lightly.

Barley was preferred on account of its rapid growth, and would sooner give protection to the young growth. It is a debatable question whether anything should be sown with alfalfa or not, and I have heard it suggested that instead of sowing the alfalfa and barley together, it would be better to wait until the barley was up a few inches and then sow the alfalfa and roll the ground, but whether the rolling would be sufficient covering for the alfalfa I am not prepared to say.

The above field lies on the west bank of Eel river and is very level, of a rich, sandy loam, and is about 80 feet above low water. There is no chance to irrigate this five-acre tract, consequently all the moisture it receives comes from rains and the soil. The three hay crops cut this year yielded 40 tons of hay, and considering that the last crop was cut August 3d, and that the field will be used this fall to give weak calves a start to carry them through their first winter, the showing is not bad for a five-acre field.

There are many places in this section where water could be brought on to the land and alfalfa or clover could be irrigated the year round, but of course a few floodings would suffice.

In this portion of the country care should be taken not to sow too early in the spring, and if anything is to be sown with alfalfa, barley is undoubtedly the best grain, owing to its more rapid growth.

ED. ROBERTSON.

Sweet and Sour Skim Milk.

W. W. Cooke, in the *Country Gentleman*, gives the results of some feeding experiments with six pigs fed on skim milk. They were divided into lots of three each, one fed on sweet skim milk and the other lot on that which was sour, "thoroughly lobbered and rank, very often wheyed off."

"The pigs were fed two ounces of cornmeal to each quart of skim milk until they were large enough to take 12 ounces of cornmeal and six quarts of skim milk, daily. After that, whatever additional food they desired was made up of equal parts by weight of wheat bran and gluten meal.

"The 12 ounces of cornmeal and six quarts of skim milk, daily, were continued through the rest of the test," from May 18th to October 27th.

The following table will show at a glance the greater growth made by the pigs fed on the soured milk:

GAIN IN LIVE WEIGHT DURING TEST.

Pig No.	Food.	No. of days.	Tot. gain pounds.	Av. daily gain.
1	Sweet Skim	162	154	0.95
4	do	162	157	0.97
7	do	162	162	1.00
3	Sour Skim	162	182	1.12
6	do	162	176	1.09
8	do	162	166	1.03
Average—	Sweet Skim		158	0.97
	Sour Skim		175	1.08

It will be seen that the pigs fed on the sour skim gained an average of 17 pounds each more than the lot fed on sweet skim, a fact which may afford food for thought to those dairymen, if there are any among our readers, who are feeding milk fresh from the separator every day.

Mr. Cooke says that "it has been taught widely during the last year that the patrons of separator creameries were losing largely by allowing the skim milk to sour before they got it to their pigs. * * * A rather extensive canvass among farmers, recently, showed quite a decided preponderance of pigs doing better on sour milk than on sweet."

After suggesting that the probable reason for the superiority of the sour milk is due to certain chemical changes taking place during the process of souring, he continues: "It could not be said from our experiments that skim milk could be kept indefinitely and still not lose in feeding value, but it seems probable that there is no loss in feeding value in the first change of souring and lobbering.

As to why the sour skim milk should have done better than the sweet skim milk we cannot tell, unless the answer is found in the greater relish with which it was eaten, or unless it is a fact that the acid, during the hot weather, helps by keeping the digestion of the pigs in a little better condition."

The last sentence suggests the query, will sweet milk be better than sour in cold weather? As the gain of the pigs fed on sour milk was only 17 pounds each during a period of 160 days, in hot weather, when acid foods are considered beneficial, is it not possible that milk, sweet and warm from the separator, might prove superior to sour, under like circumstances, in cold weather?

It should also be remarked that milk which is allowed to become filthy, as well as sour, or in which putrefactive ferments, as well as lactic acid, are allowed to develop, will surely not come under the conclusions noted above. Old, cold and unclean skim milk is infinitely worse than fresh, sweet milk. Therefore, do not allow the results to be made a cloak for carelessness nor neglect.

The Stable.

The Select Clydesdale.

Some time ago we made reference in our columns to the new rules of the Treasury Department in regard to the importation of pure-bred livestock duty free, stating also that the select Clyde had been rejected for free entry on account of its being a cross-bred animal, being a cross from selections of both the Shire and Clydesdale breed of horses.

These crossbred cannot in any sense be looked upon as pure-bred, although they have a studbook in which their pedigrees are recorded, which also necessitates the recording of some pure-bred horses of both the above-named breeds in order to make the pedigrees complete.

This, however, does not constitute a pedigree of any one pure breed, and many breeders will undoubtedly be surprised to hear of the new decree issued by the Department of Agriculture in regard to the importation of breeding animals, as contained in the following letter:

(COPY.)

WASHINGTON, D. C., July 19 1892.

Collector of Customs, New York, N. Y.—SIR: Upon the recommendation of the Secretary of Agriculture, made in accordance with the Act of July 5, 1892, which prescribes that he "shall determine and certify to the Secretary of the Treasury what are recognized breeds and and pure-bred animals under the provisions of paragraph 482 of the Act of October 1, 1892," the name "Select Clydesdale Stud-Book," in which is recorded the "Select Clydesdale" breed of horses of Great Britain, is added to the list of foreign books given in Department's circular of May 2, 1892, No. 66 (L. 12,734); and free entry will be accorded horses imported for breeding purposes, for which the importer shall furnish a certificate of record and pedigree in the form prescribed, showing that the animal is pure-bred and admitted to full registry in the book of record which has been duly established for such "Select Clydesdale" breed.

Respectfully yours,
[Signed] L. CROUSE, Ass't Sec'y.

This looks like taking a step backward after all the fuss that has been made by the Department in regard to importers being obliged to file certificates showing that every animal imported is *pure bred* and has a pedigree recorded in some standard studbook, or pay a duty of 20 per cent on the value of the animal imported.

As well might the Department have let things run along on the old-established basis of admitting duty free all pure-bred animals of recognized breeds, in fact better than to adopt any such vacillating policy as the one outlined above.

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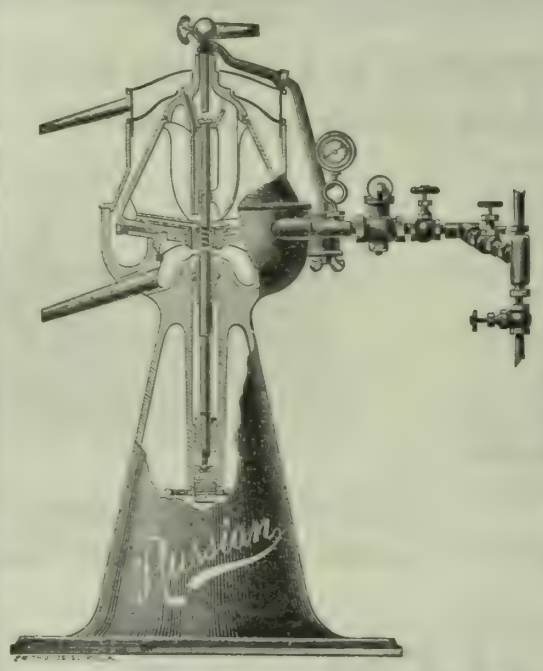

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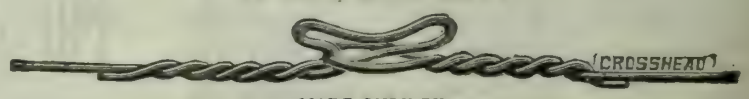

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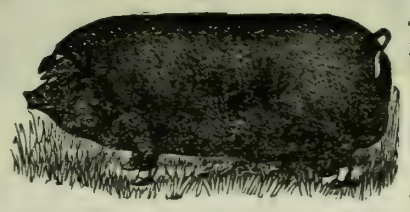

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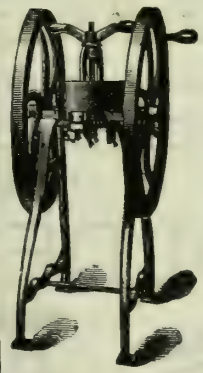

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WE WARRANT this machine to cut Dry or Green Bones, meat, gristle and all, by Hand Power, without clog or difficulty, or MONEY REFUNDED.
GREEN CUT BONE WILL DOUBLE THE NUMBER OF EGGS, will make them 25 per cent more fertile, and increase the vigor of the whole flock COST OF FEEDING MATERIALLY LESSENED.
These Cutters are endorsed by all the leading California poultrymen. Send for a Catalogue describing all sizes of Cutters and containing valuable information in relation to feeding green cut bones.

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Pacific Coast Agents. PETALUMA, CAL.

IMPORTANT!
COOPER'S SHEEP DIP.

One Case Makes 1000 Gallons Dip. PRICE $16 PER CASE.
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Wool Commission Merchants, and Agents for the Sale of all kinds of Live Stock.
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LITTLE'S CHEMICAL FLUID NON-POISONOUS
SHEEP DIP.
BEWARE OF CHEAP IMITATIONS.

One gallon, mixed with 60 gallons of cold water, will dip thoroughly 180 sheep, at a cost of one cent each. Easily applied; a nourisher of wool; a certain cure for SCAB. Little's dip is put up in red, iron drums containing 5 English or 6¼ American gallons, and is sold to the trade by the English gallon. For the convenience of our many customers it is also put up in one-gallon packages, for which we make no extra charge. Each drum and package bears the label of "Little's Dip."
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One and a half miles northeast of San Leandro, Alameda County,
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Every Facility for Breaking Colts Properly.
Rates Very Reasonable.
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MONEY "HOW CAN I Make Some?"
By using the Pacific Incubator and Brooder, which will hatch any kind of eggs better than a hen. In universal use. Gold Medal wherever exhibited. Thoroughbred Poultry and Poultry Appliances. Send 8 cts. in stamps for 82-page catalogue, with 30 full-sized colored cuts of thoroughbred fowls, to Pacific Incubator Co., 137 Castro St., Oakland, Cal

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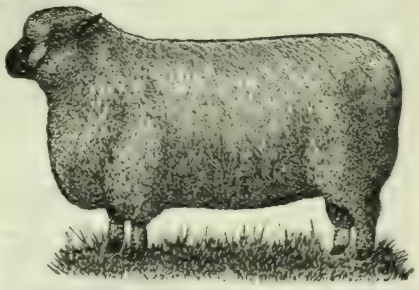
HALSTED INCUBATOR
COMPANY,
1818 Myrtle Street, Oakland Cal.
Send Stamp for Circular

POULTRYMEN, Hens are beginning to stop laying and consequently the price of eggs is advancing. Every one should now feed Wellington's Improved Egg Food regularly if they desire to have eggs to sell when they reach high prices. Get it of any MERCHANT or of Proprietor, B. F. WELLINGTON, 425 Washington St., San Francisco.

MECHAM & FRITCH,
Importers and Breeders of
Red Polled Cattle.
We have about 150 Head of Imported and Graded Stock, all Deep Red Color.
Full Blood and Graded, of both sexes, for sale. Address all communications on cattle to
W. S. FRITSCH, Petaluma.

H. MECHAM,
Importer and Breeder of Shropshire Sheep.
They were all imported from England, or bred direct from imported Stock.



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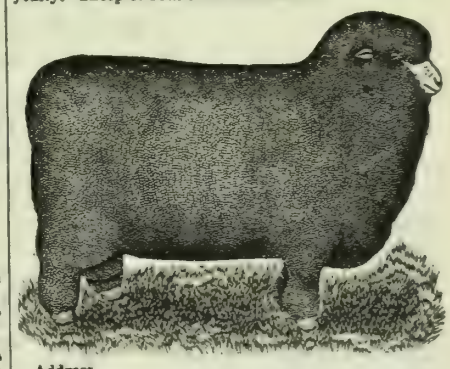

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FOR THE PACIFIC COAST.
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LARGEST AMERICAN IMPORTER OF O. D. SHEEP.
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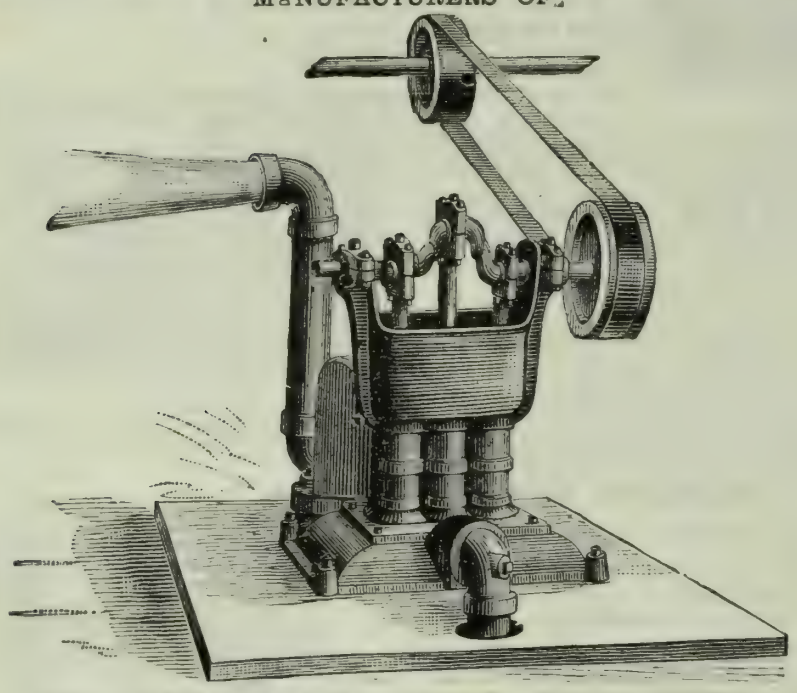

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ORIENTAL GAS ENGINE.

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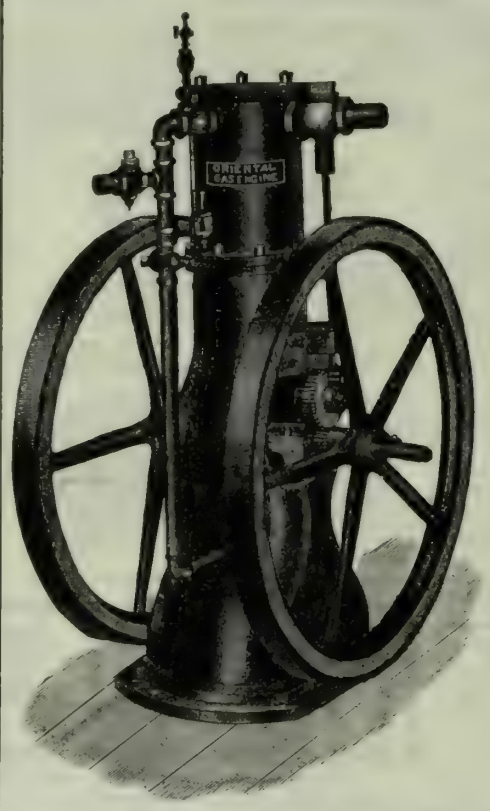

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M. A. GRAHAM, Manufacturer,
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POWERFUL.
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The Farmers' Own
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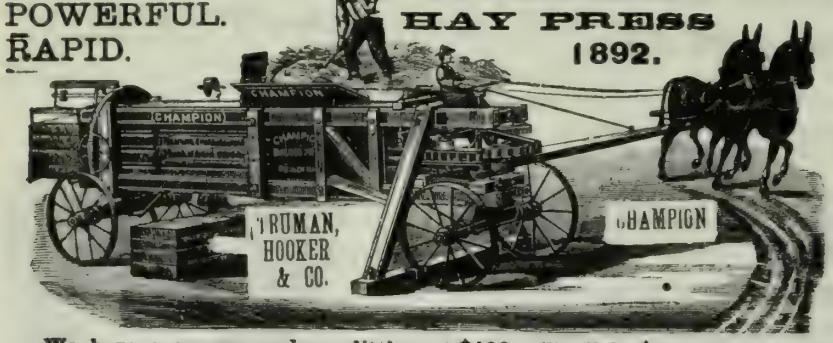

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APPLIED WITH AN ORDINARY BRUSH.

Protects All Kinds of Timber, Above or Below Ground or Water, from Rot and Decay.

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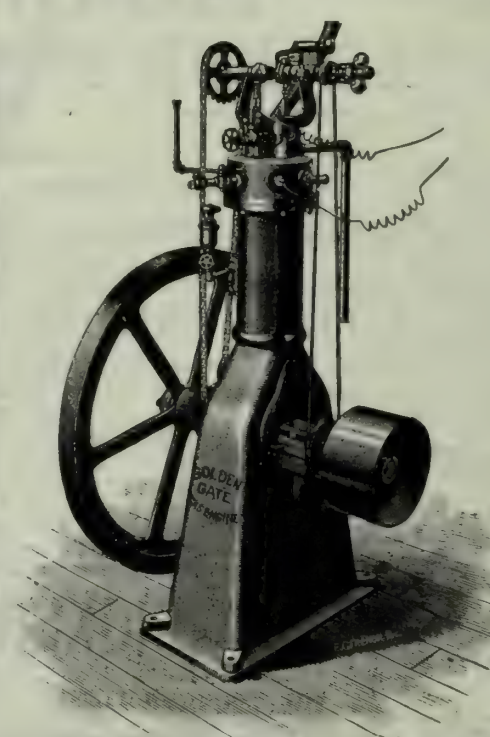

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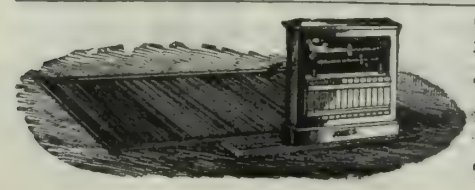

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Price $66, Delivered Anywhere in the United States.
These Scales have STEEL BEARINGS, Not Wood—BEAR THIS IN MIND.
From 25 to 50 per cent cheaper than any other Scales of like quality. All sizes and kinds of Scales always in stock.
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Engravings made from photographs, drawings and original designs, for newspaper, book, card and job printing. Engraved prints enlarged or reduced, cheaply and quickly. Also copies of manuscript, legal documents, wills, contracts, signatures, portraits, buildings, machinery and printed documents reproduced with accuracy. Photographs, stereoscopic views, etc., duplicated, enlarged or reduced. Slides for magic lanterns made from photographs lithographs, and steel or wood engravings, etc. Satisfaction guaranteed. Agents wanted in all cities and in all towns. Address, for further information, Dewey Engraving Co., 220 Market St., San Francisco.

DEWEY & CO. {220 MARKET ST., S. F. Elevator, 12 Front.} **PATENT AGENTS.**

S. F. MARKET REPORT

Market Review.

SAN FRANCISCO, August 31, 1892.

There has been a continued free inquiry for funds from the grain-growing sections. The call, so far as we are able to learn, is largely to make advances against grain going into warehouses. The low bids made by buyers cause a very low general disposition to store wheat and barley. Some of the warehousemen it is claimed have loaned wheat belonging to farmers to exporters. If this is true, and those in position to know say it is, then the practice cannot be too severely condemned, for it is not only unsafe but it prevents buyers from entering the market, and, by their purchases, make better prices. Farmers should have a private mark on each bag, and, in taking warehouse receipts, have the mark specified. Farmers' organizations should look into this for their own benefit. Warehousemen who loan grain can, and probably do, collect storage charges for that which is loaned out, and, at the same time, get more grain for storage than to fill the space made vacant. Ships are lower. The ring made a strong fight to keep charters up, but the tenacity with which farmers have held grain has caused them to weaken. A leading English paper just to hand claims that the wheat markets of the world are under control of the powerful moneyed syndicate which is manipulating silver. If this opinion is well grounded then wheat will be more of a gamble than ever. The action of the market the past week at home and abroad seemingly gives color to the statement, for when silver advanced wheat went up, and when the former shaded off the latter also shaded off. But then time will tell if the wheat and silver markets are manipulated by a big moneyed syndicate. There is no longer any occasion for doubting that the wheat crop, taking all wheat-growing countries as a whole, is considerably below the outturn in 1891, and that before the winter passes better prices will rule. At the moment the market is unfavorably influenced by the low price of silver, a cholera scare and farmers in Europe and at the East rep rted to be selling corn very freely at present low prices. Barley is in an anomalous position, with only an average crop of bright color and choice grades. The market for the latter is made to move down in sympathy with the former, and that, too, with its exports largely in excess of what they were at this time in 1891. The very low rates by rail to Atlantic sea ports are stimulating the shipping demand. Poor grades of barley are only salable at home for feed and for which the market has shaded off. Corn has held fairly steady. Choice oats have been coming in slightly more freely. Poor to good oats are in liberal supply and easier. Rye is lower. Flour is weak, with more or less cutting in prices. There appears to be a big fight on hand by the flour combine to force other mills into the trust. Heavy receipts of millstuff from up north have broken the market for bran and middlings, and roll barley is lower in sympathy with the grain. The demand is free and steadily enlarging. Hay has come in quite heavily, causing a weak and concession market for the poorer grades. Under heavy receipts both tomatoes and sweet potatoes broke badly, although the latter at the close are stronger and slightly higher under more moderate receipts. Onions have ruled weak, while choice potatoes had good support, but good to fair were hard to sell. A combination was perfected the past week to advance choice to gilt-edged butter, which met with success, owing to a delay in the usual receipts from Humboldt and Del Norte. The demand is quite large, but this always obtains during fair times, which admits of the marketing of heavy supplies. Those who claim to know say that unusually large quantities are held back by some of the creameries, and besides there is an unusually large quantity in store in this city—the bulk of which is not reported in stock. With the advance in fresh, the trade has commenced on pickled, which is now beginning to move. The demand this year appears to show a large increase for keg. The Eastern markets for choice grades of butter and cheese are quite high. Unless our market advances considerably there will be very little choice brought from the East, but then the outturn in this State has advanced quite rapidly. Cheese is firmer. Choice, well-selected, fresh-laid eggs have had good support, as have choice consignments of Eastern. Fully one-half of the latter are sold in our city as California ranch eggs by the retail trade. The cool weather favors the bringing in of Eastern. Honey came in more freely, but the market holds strong. The poultry market, so for as hens and young fowls are concerned, went from bad to worse under heavy receipts on each day. Old roosters stood up well, but toward the close they are easier. Geese and turkeys had good support. The latter, it is claimed, are held back for the usual Thanksgiving and Christmas demand. Owing to the cholera scare, the demand for hog product at the East has fallen off, and in consequence the market is lower; ours is also lower in sympathy. In live stock, bullocks are stronger, mutton sheep firm and calves steady. In hops there is nothing new to report. Dealers appear to be watching the crop outturn, and also cholera movement abroad. The latter may possibly have considerable influence on the market. Fall wool is coming in quite freely. While the valley and southern clips are poor, those from mountain and up-country ranges are fair. Beans continue strong under light supplies. The bulk of new-crop Limas is said to have been contracted at around 3 cts. New-crop nuts are meeting with more inquiry. The bulk of the walnut crop has been contracted. The tone for all kinds is strong. New-crop raisins, it is now conceded, will probably do better. The shortage abroad and cholera scare will be in favor of Californian. Packers cannot exercise too much care in putting on the market only the better grades uniformly and attractively packed. The end justifies this course. Last year's inferior packing did great injury to the industry. Dried fruit is strong and tending up. It is claimed that there is not 500 tons of dried apricots unsold. Prunes are strengthening. The short crop and high asking prices abroad are in favor of sellers. Dried plums are scarce and high. Dried grapes continue to have strong support. Peaches are meeting with a freer demand in the country. Buyers are picking up all they can find that are not held too high. At present prices, it seems, driers are letting go. Pears and nectarines are steady, as are other kinds of dried fruit. The market for fresh fruit shows more strength for choice canning tree fruits, with still better prices looked for. There has been free buying of choice green Bartlett pears, with sales to the trade as high as $1.50 per box. Choice plums and prunes are scarce. Choice firm peaches are wanted at an advance. Grapes are improving in quality, and as the quality grows better, quotations are higher for the more choice. Heavy shipments are being made eastward and also up north. The cool weather is against a free consumption of watermelons, cantaloupes and nutmeg melons. The market fluctuates daily. Lemons and limes are scarce and high.

Markets by Telegraph.

Foreign Grain Review.

LONDON, Aug. 29.—*Mark Lane Express* says: The favorable weather last week allowed an unprecedentedly large area to be harvested. Probable yield: Wheat, 64,375,300 bushels; barley, 69,251,550; oats, 112,386 300. Best new English wheat, 32s 5d; old, largely offered, 29s; readily sold. Foreign wheats almost unsalable, is lower. American red winter wheat declined steadily, lost 2s 9d in 11 days. Barley and corn cheaper. Oats firm to-day. English, Russian and Indian wheats 6d dearer. California 3d dearer, owing to the heavy rains, which are regarded as jeopardizing the wheat still in shock. Flour cheaper. Yellow corn 3d lower; round, 6d lower; American flat, steady; oats, 3d lower; barley, 6d lower.

Eastern Wool Markets.

NEW YORK, August 26.—The demand for wool is is not as strong as it was a week ago. Manufacturers are now well supplied. The goods market is in excellent shape and the mills are all busy. The consumption of wool is heavy and has greatly increased during the past year. There are at present no indications of wool prices advancing, and manufacturers feel confident of securing wool a month hence on as favorable terms as it can be bought now. Quotations on all grades are fairly sustained. The markets are more heavily stocked with domestic wools than they have been in previous years at this time. The receipts from the country are beginning to fall off, and accumulation from now on will be less rapid. Buying is still largely of fleeces. They are lower relatively than other wools and buyers have availed themselves of this advantage. There is less doing in Territories. Texas wools are quiet. California and Oregon wools are dull. Pulled wools are moving slowly. Stocks in pullers' hands are light. Skins are costing more than they did a year ago, but the wool is, on the average, 3c lower than in August, 1891. Australian wools are quiet. The next London sales will open September 13th. About 300,000 bales will be offered, but very little of it will be suitable for this country. Carpet manufacturers continue to buy quite freely. Now that wools from the cholera district are to be excluded there is a better demand for Scotch, China and Medi erranean wools. Values are very firm, but unchanged.

NEW YOAK, August 28.—The volume of sales is smaller this week. Manufacturers are in receipt of some interior purchases; this cuts off the call at the seaboard. There is nothing which points to a shading of values. The marked prosperity of the goods trade and the inroad that has been made on supplies give a buoyant aspect to the later possibilities of stronger quotations. Sales at New York, 413,000 pounds of domestic and 476,000 of foreign. Boston sold 2,514,400 pounds of domestic, 600,000 of Australian and 250,000 of foreign carpet. Philadelphia conforms to the policy of her sister markets and allows stock to go into prompt sale, though prices are unsatisfactory in view of improvement when supplies become lessened.

Canned Fruit.

NEW YORK, August 28.—Canned fruits have considerable attentive inquiry, but no large takings have transpired. All are firm. Standard apricots, $1.75@1.80 spot.

Dried Fruit.

Fifteen cars of fair size prunes were placed, mostly for western account, at 9@9½c, September delivery. Unpeeled peaches quiet. Small lots are quoted at 13½c spot. Raisins show no special interest. Four cars, new and of established quality, sold at $1.65; per layers, box $1.45; choice loose, $1.25@1.35; good ditto, bag, quoted at 5c; Valencias are freely offered at 7½c delivered, duty paid. This favors buyers in competing with the coast crop. Market strong for best grapes. A car of apricots has been sold at 15¾c spot. Buyers want to see the goods this season, before purchasing.

Fresh Fruit.

NEW YORK, August 28.—It has been a tough week, for with 56 cars arriving we have had two rainy days and local stuff arriving freely. Dealers think they came out well even with the cheap rates. They will advise light shipments for a time. Plums are a drug; peaches low; only large green Bartletts made top figures. At the Liverpool sale Bartletts sold at 14s 6d. A prominent English fruit firm says: "The trial of shipments is not conclusively a failure. Pears, of course, must compete with the cheap French, but peaches are fairly certain of a market."

Miscellaneous.

NEW YORK, August 23 —Lima beans are firm with a prospect of full support later on.

Hops.—A soft condition pervades the market. Cash buyers bid 24 cents, for qualities listed, 24@24½. Pacifics range 20@24. Trade of the summer was below the average, and many of the best lines have been more or less broken up in meeting the light wants of brewers, and the country tone is easier for reserve and futures.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	Aug.	Sept.	Oct.	Nov.	Dec.
Thursday	6s00¾d	6s00¾d	6s01¾d	6s02¼d	6s03 d
Friday	6s01 d	6s01 d	6s01½d	6s02½d	6s03 d
Saturday	6s01 d	6s00¾d	6s0 ¼d	6s02 d	6s03 d
Monday	6s02 d	6s01¾d	6s02¼d	6s03 d	6s04 d
Tuesday	6s02 d	6s01½d	6s01½d	6s02¾d	6s03½d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market for P. S.	Weather.
Thursday	33s3d	33s0d	33s0d	Inactive.	Unsettled.
Friday	32s6d	33s0d	32s6d	Quiet.	Firm
Saturday	32s6d	33s0d	32s6d	Steady.	Firm.
Monday	32s6d	33s d	32s6d	Firmer.	Showery.
Tuesday	33s9d	33s9d	33s9d	Weak.	Fine.

To-day s cablegram is as follows:

LIVERPOOL, Aug. 31. - Wheat -- Weaker. California spot lots, 6s 7½d; off coast, 32s 6d; just shipped, 33s; nearly due, 32s 6d; cargoes off coast, slow; on passage, rather easier; Mark Lane wheat, quiet; French country markets, rath.r easier.

Eastern Markets.

The following shows the closing prices of wheat for the past week at

New York.

Day.	Sept.	Oct	Dec.
Thursday	135	137	142½
Friday	133½	136½	141
Saturday	134½	134⅝	14 ½
Monday	134⅞	137½	141⅞
Tuesday	133¾	136	141¼

The following is to-day's telegram:

NEW YORK, Aug. 31.—Wheat 79½c for September, 81c for October, and 84¼c for December.

Chicago.

Day.	Sept.	Oct.	Dec.
Thursday	125¾	127⅛	130⅜
Friday	125½	126½	129⅝
Saturday	126	127⅝	13 ½
Monday	126⅞	128⅛	131⅛
Tuesday	125	125½	130½

The following is to-day's telegram:

CHICAGO, Aug. 31.—Wheat—74¾c for September and 77¾c for December.

San Francisco.

WHEAT.

	Seller '92.	Buyer Aug.	Buyer Sept.	Buyer Oct.	Buyer Dec.
Thursday, high st.	132	....	....	....	136⅝
" lowest	131¼	....	....	....	135¾
Friday, highest	132	....	....	....	136⅝
" lowest	130⅞	....	....	....	135¾
Saturday, highest	132	....	132	....	136⅛
" lowest	132	....	132	....	136⅛
Monday, highest	134	....	134¾	....	137⅜
" lowest	133½	....	134¼	....	137⅜
Tuesday, highest	132	....	....	....	137⅜
" lowest	132	....	....	....	136

The following are to-day's recorded sales on Call:

Wheat—Morning—Informal—Buyer December, 100 tons, $1 35½; 500, $1.35¾; 1200, $1.35⅝. Seller 1892-1100 tons, $1.31½ ⅌ ctl. Regular Session—Seller 1892, 300 tons, $1 31⅜; 100, $1.31⅜; 400, $1.31½. Buyer December, 1000 tons, $1.35½ ⅌ ctl. Afternoon—Wheat—Seller 1892, 500 tons, $1.31¼. Buyer December, 400 tons, $1.35⅝ per ctl.

BARLEY.

	Seller '92.	Buyer Aug.	Buyer Sept.	Buyer Oct.	Buyer Dec
Thursday, highest	88⅝	....	....	91	94⅞
" lowest	87⅞	....	....	90½	94
Friday, highest	88½	....	....	90	94¼
" lowest	86⅝	....	....	90	93
Saturday, highest	87	....	....	89¼	93⅝
" lowest	87	....	....	88⅝	93½
Monday, highest	86½	....	....	88⅞	92½
" lowest	86⅝	....	....	88¼	92⅛
Tuesday, highest	85¾	....	....	87¾	92
" lowest	85½	....	....	87⅝	91⅞

The following are to-day's recorded sales on Call:

Barley—Informal—Seller 1892, new—100 tons, 86c per ctl. Regular Session—Buyer December, 100 tons, 91½c; 200, 92c per ctl. Afternoon—Barley—December, 300 tons, 92c; Seller 1892—100 tons, 86½c. Buyer December—100 tons, 92¾c; 200, 93c per ctl.

General Remarks and Statistics.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending Aug. 30, '92, were as follows:

Flour, qr. sks	61,633	Bran, sks	16,644
Wheat, ctls	143,699	Buckwheat "	....
Barley, "	120,828	Middlings "	2,311
Rye, "	520	Chicory, bbls	30
Oats, "	15,475	Hops, "	9
Corn, "	4,688	Wool, "	1,112
*Butter, "	926	Hay, ton	2,741
do bxs	652	Straw, "	155
do bbls	77	Wine, gals	171,450
do kegs	83	Brandy, "	5,540
do tubs	15	Raisins, bxs	....
do ½ bxs	2	Honey, cs	313
†Cheese, ctls	676	Peanuts, sks	....
do bxs	113	Walnuts "	....
Eggs, doz	21,115	Almonds "	....
do " Eastern	69,810	Mustard "	1,211
Beans, sks	2,802	Flax "	....
Potatoes, sks	21,127	Popcorn "	....
Onions, "	2,283	Broom corn, bbls	....

*Overl'd, 341 ctls. † Overland, 80 ctls.

Exports by Sea from San Francisco from July 1 to Aug. 25

	1892-93	1891-92
Wheat, ctls	1,438,141	2,590,406
Flour, bbls	150,582	193,659
Barley, ctls	245,823	142,823

Tonnage Movement.

From reliable advices up to Aug. 24, the following summar tonnage movement is compiled:

	On the way 1892.	On the way 1891.	In port 1892.	In port 1891.
San Francisco	291,538	406,862	*169,295	61,863
San Diego	19 635	23,813	6,414	.....
San Pedro	12,480	8,352	....	
Oregon	49,065	53,223	36,157	15,391
Puget Sound	37,002	27 794	.....	
Totals	409,720	520,054	211,866	77,254

*Engaged for wheat, 1892, 60,516; 1891. 56,094.

Tonnage on the way has increased. Spot charters are about 2s 6d per ton lower than one week ago.

Cereals.

The Minneapolis *Market Record* now estimates the wheat crop in Minnesota and the Dakotas from 110,000,000 to 115,000,000 bushels It also reiterates the statement that the crop last year in the three States was 160,000,000 bushels, although the government report showed a yield of only 137,000,000 bushels. Recent estimates make the wheat crop of Italy 110,000,000 bushels, against 128,000,000 last year, and on this basis it is claimed that Italy will have to import 32,000,000 bushels.

Dornbusch says the English crop is turning out better than expected, estimates ranging from 60,000,000 to 68,000,000 bushels. Barley is turning out magnificently, but oats are disappointing, and beans and peas will be poor crops. In France, reports of the quality of new wheat are favorable. New rye is of fine quality. Oats are deficient. New samples of German wheat and rye are very fine. Russian reports are still irregular. Reports from the Danube suggest an ample supply of wheat for export from the Danubian provinces.

The Russian Agricultural Department gives a summary of the winter wheat outlook up to the 27th of July (new style), from information received from 2900 correspondents. The advices obtained are from the 50 governments of European Russia, exclusive of Poland and the north Caucasus, and the condition of the wheat crop at that period was as follows, taking 100 as the average: Two governments report an excellent crop, 125 per cent; 16 a good crop, 100 to 125 per cent; 20 an average crop, 90 to 100 per cent; 3 a mediocre crop, 75 to 90 per cent; 5 a very mediocre crop, 50 to 75 per cent; 4 an indifferent crop, under 50 per cent. The rye crop may be represented by 95, last year's not having exceeded 70.4. As to Poland and the Caucusus, the harvest appears likely to be above the average in the first and very abundant in the last-named region.

The stocks of foreign wheat and flour in the United Kingdom, august 6th, were 30,000,000 bushels, against 9 872,000 bushels last year. The stock of British wheat held by the British farmers is only about 8,100,000 bushels this year, against 9 875,000 bushels last year. The total amount of wheat in store, in farmers' hands and afloat for the United Kingdom is, however, 91,810,000 bushels, against 54,184,000 bushels last year.

The Paris *Mercuriale des Halles et Marches* estimates the present year's wheat crop in France at 99,822,750 hectolitres, and puts the average weight at 77 to 78 kil., which would give a total crop of 284,000,000 bushels. The *Marche Francais*, however, looks for an average crop, viz., about 296,000,000 bushels, and states that the quality and condition are very satisfactory. The annual requirements of France, it may be added, amount to 340,000,000 bushels.

C. A. King & Co.'s *Toledo Circular*, August 20th, says: "If any one had said a month ago that Toledo's receipts of wheat this August would be 7,000,000 bushels, as large as a year ago; that St. Louis would receive over 6,000 000 bushels, a million more than a year ago, and Baltimore as much, his word would have been doubted. But such promises to be the case. The winter wheat crop of Ohio, Michigan, Indiana, Illinois, Kansas and Missouri this year is only 200,000,000 bushels, against 240,000,000 last year. The price of wheat is 27c below a year ago, yet farmers have sold more freely. While receipts continue larger than a year ago, there can hardly be any material improvement in prices. Speculation has helped to sustain prices, but is timid while the farmers sell so freely."

The Kansas City *Grain Trade News* says: "All sorts of reports regarding the corn crop of Kansas are current, from the real estate boomer's loudly proclaimed statement that the prospect is the finest on record to the extreme pessimist who thinks the State will raise no more than enough to feed herself. The reliable information which comes to the *Grain Trade News* does not justify any change in the statement made last week. The present prospect is for a half a crop, and there is no likelihood of this estimate being raised. If Kansas produces 110,000,000 bushels of corn this year she will be doing well. Part of the southeast part of the State has been without rain for four weeks, and sections in the northern part have had no more than the slightest showers in that time. In some of the southern central counties there is a prospect for very nearly a full crop, but these are offset by the dozen or more counties which will not raise enough for home use."

The official report of the Indian crop and the exports are as follows:

	Crop.	Exports.
1892	202,986,000	.....
1891	255,435,000	54,860,000
1890	235,436,000	26,754,101
1889	217,522,000	25,758,553
1888	266,882,000	32,872,151

The local wheat market, or at least so far as quotations went to show, declined steadily up to Monday, when an advance set in, which held on yesterday, although futures shaded off slightly. The advance on Monday in Europe and at the East is said to have been due to the reports to the International Grain Congress showing a marked falling off in the wheat crop of the world. The decline was due to lower silver, cholera scare and continued free selling by eastern and European farmers. The decline in wheat charters at our port admitted of more vessels being taken, and also allowed wheat exporters to buy without quoting lower. In the interim, buyers are paying an advance on the published bids in this city. It is said that several sales were made in this city the past week at from 1¼ to 2⅛ cents above quoted prices. The selling offers are light; about everything is going into warehouses.

The receipts of barley the past week were the heaviest on record. A large percentage of the receipts was for shipment. Bright-color, choice barley suitable for exporting and brewing, is scarce and wanted, but buyers are slow in bidding up. Off-color, poor to fair barley is in heavy supply, which causes buyers to bid low or in keeping with the lower cross order sales on Call. The consumption of feed barley, owing to coming into favor, is quite large, with a steadily enlarging demand.

The receipts of oats were large, but then the demand is larger. The supply of choice grades is still light, although an increase is reported within the past week. Poor to fair oats are in liberal supply. The crop up north is said to be short.

Corn has held to fairly steady figures under moderate receipts and a fair demand.

Rye is lower At the decline there is a slight improvement in the demand.

Dairy Produce.

Butter has been marked up with a barely steady tone at the advance. The trade is beginning to buy

pickle, which is good to gilt-edged and sells at lower figures. Commission-houses are meeting the market, while speculators are trying to force prices still higher.

Cheese is firm, but no higher. The demand is fair.

Eggs which are choice to strictly fresh-laid, and of large size, are firm and slightly higher, but other stock does not show any material change. The receipts of eastern are fair, with the quality running good to choice.

Feedstuff.

Millstuff has declined under liberal receipts coming to hand from Oregon. Roll barley is lower. The demand is large and increasing.

The receipts of hay for the week ending August 29th were smaller, but on the 30th nearly 1500 tons were reported, which caused a weaker tone. It now looks as if the shipments from the State of Nevada will be quite light, owing to poorer pasture. It is claimed that the heaviest selling pressure has passed, and that from now on receipts will probably be smaller. The consumption so far this season shows a large increase over that during the like time in 1891.

Vegetables.

The market for garden truck has been irregular, being governed by the daily receipts. River tomatoes are slow, as are egg plants and ochre.

Onions have ruled weak under free receipts and only a fair demand.

Choice potatoes have held strong, but poor and diseased favored buyers. There is a continued free demand for the more choice good-keepers for shipment.

The market has been liberally supplied with sweet potatoes. To-day the market was barely steady.

Fruit.

Receipts of berries and tree fruit have been light, and in consequence the market strengthened for the more choice. Canners buying, forced both pears and peaches up. The supply of all kinds of fruit, except apples, is lessening. Apples are coming in quite freely, causing an easier market.

The market for dried fruit is very strong. Some claim that apricots will do still better. The shipments eastward are assuming larger proportions. There are those in trade who claim they can do better in buying from speculators than from driers. They say that the former are getting a good profit and are unloading before the holidays. European advices report a strong market, owing to short crops. The cholera scare may prevent imports, and if these are suspended, consumers in this country will have to depend entirely on California.

Raisins show signs of improving. There has been, and still is, a steady buying. It is said that purchases are made in such a way as not to excite sellers. The crop abroad, it is claimed, will be short.

Live Stock.

Rains in Arizona give an assurance of good pasture, which has stopped the strong selling pressure from there, and, consequently, our market is doing a little better for bullocks. The consumption is larger, owing to cool weather and higher prices for fruit. Mutton and hogs are unchanged.

Miscellaneous.

Hens and young fowls sold under, owing to free supplies, but old roosters held up top to Tuesday when they weakened slightly. Geese are lower, but turkeys are strong. Ducks are weak.

Beans are scarce and high. The demand is only fair, but the supply is light. The bulk of new crop Limas has been contracted.

Hops are essentially unchanged. Both buyers and sellers appear to be indifferent. Picking is well under way.

Fall wool is coming in freely. The grade is not up to last year's. The market is slow.

Honey is very firm and wanted at full figures.

Sugar is one-quarter cent per pound higher.

Grain bags are steadier.

Hams are lower.

Dried Fruits.

The quotations given below are for average prices received by commission merchants for consignments by growers. Something very fancy fetches an advance on the highest quotations while poor sells slightly below the lowest quotations. Prices, unless otherwise specified, are for fruit in sacks; add for 50-lb. boxes ¼c per lb., and for 25-lb boxes, ½c to 1c per lb.

APPLES—1892.		Do do fancy	13 @—
Sun-dried, ¼s, com'on	2½@ 3½	Sun-dr, pl'd, prime, bl.	—@—
Do do prime	3½@ 4	Do do choice	—@—
Do do choice	4 @ 4½	Do do fancy	—@—
Do sliced, common	3½@ 4	Evap, peeled, in boxes,	
Do do prime	4 @ 4½	choice	17½@—
Do do choice	4½@ 5½	Do do fancy	20 @—
Evap. bleached, ring.		PEARS—1892.	
50-lb boxes	6½@ 7	Sun-dried, quarters	— @ 3
APRICOTS—1892.		Do sliced	— @ 4
Sun-dried, unbl. com.	4 @ 5	Evap, sliced, in boxes.	7 @ 8
Do do prime	6 @ 7½	Do ring do	9 @10
Do do choice	8½@ 9½	PLUMS—1892.	
Do bleached, prime	12@—	Pitted, sun-dried	8 @ 9
Do do choice	13@—	Do evap. boxes, choice.	—@—
Do do fancy	14@—	Do do do fancy	—@—
Evap. choice, in boxes.	14½@—	Unpitted	4 @ 5
Do fancy, do	15 @—	PRUNES—1892.	
FIGS—1892.		Cal. French, ungraded	7½@ 8
Sun-dried, black	4½@ 5	Do graded, 60 to 100	8½@ 9
Do white	—@—	Do do 40 to 60	11 @12
Do do washed	—@	Fancy sell for more money.	
Do do fancy	—@—	RAISINS—1892.	
Do do pressed	—@—	London Layers,	
Smyrna boxes	—@—	cluster, ℔ bx	1 90 @2 00
Do sacks	—@—	Do choicest do	1 60 @1 70
GRAPES—1892.		Do prime, ℔ bx	1 40 @1 45
Sun-dried, stemless	3½@	Loose Muscatels,	
Do unstemmed	1½@ 2	common, ℔ bx	—@—
NECTARINES—1892.		Do choice, do	1 25 @1 30
Red, sun-dried	8 @ 9	Do fancy, do	—@—
Do Evap., in boxes	—@—	Unstem'ed Muscatels, in sacks, ℔ lb	4 @ 5½
White, sun-dried	9½@11	Stemmed do do	—@—
Do evaporated	—@—	Seedless do do	—@—
PEACHES—1892.		Do do ℔ 20-lb bx	—@—
Sun-dried, unpeeled, common, bleached	8 @—	Sultanas, unbl, bxs	—@—
Do do prime, do	10 @—	Do bleached, in bxs	—@—
Do do choice, do	11½@—	Halves, quarters and eighths 25, 50 and 75 cents higher respectively than whole boxes	
Do do fancy	12 @—		
Evap, unpe'l'd, choice	12½@—		

Live Stock.

BEEF.		MUTTON.	
Stall fed	5½@—	Wethers	6½@—
Grass fed, extra	5½@—	Ewes	6 @—
First quality	5 @—	Do Spring	8 @—
Second quality	4½@—	HOGS.	
Third quality	3½@—	Light, ℔ lb, cents	5½@—
Bulls and thin Cows	2 @—	Medium	5½@—
VEAL.		Heavy	5 @—
Range, heavy	4½@—	Soft	4½@—
Do light	5½@—	Feeders	3½@—
Dairy	6 @—	Stock Hogs	3½@—

Twine and Baling Rope.

BALE ROPE.		TWINE.	
Sisal, 3 yarns	9	Pure Manila Hop, in balls, tarred	11½
Do, 2 yarns, light	9½	Do, Grape-Vine, in balls or coils	12
Duplex, 3 yarns	9	Do, Spring	16
Manila, 3 yarns, heavy	10½	Duplex Hop, in balls, tar'd	9½
Pure Manila, 3 and 4 yrns	12	Do, Grape Vine, in balls or coils	10½
Do, 2 yarns, light	12½		

Grain and Wool Bags.

Calcutta, spot	5½@	5¾
Wool Bags	36 @	38

General Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lowest quotations.

WEDNESDAY, Aug. 31, 1892

BEANS AND PEAS.		Sonora	1 25 @ 1 37½
Sayo, ctl	2 90 @ 3 00	HOPS.	
Butter	2 50 @ 3 00	1892 Bid	17 @ 19
Pea	2 40 @ 2 65	FLOUR.	
Red	2 60 @ 2 70	Extra, City Mills	4 00 @ —
Pink	2 30 @ 2 50	Do Country Mills	4 00 @ —
Small White	2 30 @ 2 50	Superfine	2 60 @ 3 00
Large White	2 20 @ 2 40	NUTS—JOBBING.	
Lima	2 75 @ 3 00	Walnuts, Cal. ℔	6½@ —
Frd Peas, blk eye	1 50 @ 1 70	Do Choice	8½@ —
Do green	1 50 @ 2 75	Do paper shell	9½@ —
Do Nies	1 30 @ 1 40	Almonds, sft shl.	11 @ —
Split	4 50 @ 5 50	Paper shell	14 @ —
BUTTER.		Hard Shell	6 @ 7½
Cal. Poor to fair, ℔	16 @ —	Brazil	9 @ 10
Do good to choice	20 @ 25	Pecans small	11 @ 13
Do Gilt edged	27 @ 28	Do large	14½@ 16
Do Creamery rolls	23 @ 28	Peanuts	3½ @ 4½
Do do Gilt edge	— @ 30	Filberts	11 @ —
Eastern	16 @ 17½	Hickory	7 @ 8
Cal. Pickled	20 @ 22	Chestnuts	11½@ 16
Cal. Keg	19 @ 21	ONIONS.	
CHEESE		Silverskin	30 @ 40
Cal. choice cream	9 @ —	POTATOES.	
Do fair to good	7½@ —	Early Rose, ctl.	40 @ 55
Do gilt edged	— @ 11½	Peerless	45 @ 65
Do skim	5 @ 6½	Garnet Chilies	50 @ 70
Young America	— @ 11	Burbank Seedlings	45 @ 65
EGGS.		Do do Salinas	75 @ 1 00
Cal. "as is," doz.	16 @ 18	Extra choice sell for more money.	
Do shaky	12½@ 14	POULTRY.	
Do candled	19 @ 23	Hens, doz	6 00 @ 7 00
Do choice	23 @ 26	Roosters, old	6 00 @ 7 50
Do fresh laid	27 @ 30	Do young	5 00 @ 7 00
Do do selected	— @ 31	Broilers, small	2 00 @ 2 75
Eastern "as is"	16 @ 18	Do large	3 00 @ 4 00
Do candled	20 @ 22	Fryers	4 00 @ 5 00
Do selected	24 @ 25	Ducks	3 50 @ 4 50
Outside prices for selected large eggs and lusiide prices for mixed sizes—small eggs and hard to sell.		do, large	4 50 @ 5 00
FEED		do, extra large	5 50 @ —
Bran, ton	15 50 @16 50	Geese, pair	1 75 @ 2 25
Feedmeal	27 00 @30 00	Goslings	— @ —
Gr'd Barley	19 00 @21 00	Turkeys, Gobl'r.	20 @ 22
Middlings	19 50 @21 00	Turkeys, Hens	19 @ 21
Oil Cake Meal	— @25 00	All kinds of Poultry if poor or small, sell at less than quoted; if large and in good condition, they sell for more than quoted.	
Manhattan Food ℔ ctl.		Manhattan Egg Food	
cabinet	— @ 8 00	℔ 100-lb cabinet	8 00
HAY.		PROVISIONS.	
Wheat, per ton	8 00 @ —	Cal. Bacon, he'vy, ℔	11 @ 11½
Do choice	— @12 50	Medium	12 @ 13
Wheat and Oats	8 50 @11 00	Light	13½ @ 14
Wild Oats	8 00 @11 00	Lard	8 @ 11
Cultivated do	7 00 @10 00	Cal. Sm'k'd Beef	11½@—
Barley	5 00 @ 9 00	Hams, Cal salt'd	12 @ 13½
Alfalfa	7 00 @ 9 00	do Eastern	15 @ —
Straw, bale	40 @ 55	SEEDS.	
GRAIN, ETC.		Alfalfa	— @ —
Barley, feed, ctl.	80 @ —	Clover, Red	14 @ 15
Do Choice	85 @ —	White	20 @ —
Do Brewing	92½@ —	Flaxseed	2 00 @ 2 25
Do do Choice	96½@ —	Hemp	3¾@ 4
Do do Gilt edge	98½@ —	Mustard, yellow	3½@ 4
Do Chevalier	85½@ 1 10	do Brown	2½@ —
Do do Gilt edge	1 15 @ 1 20	WOOL.	
Buckwheat	— @ —	SPRING, 1892.	
Corn, White	1 38½@ 1 41½	Humb't & Men'cino	17 @ 21
Yellow, large	1 30 @ 1 32½	Sac'to valley	16 @ —
Do small	1 35½@ 1 37½	S Joaquin valley	11 @ 16
Oats, milling	1 47½@ —	Cala'v & F'th'll.	16 @ 21
Feed, Choice	1 37½@ —	Oregon Eastern.	12½@ 19
Do good	1 35 @ —	do valley	18 @ 23
Do fair	1 27½@ —	So'n Coast, def.	10 @ 12
Do Common	1 15 @ 1 25	Nevada (State).	15 @ 19
Surprise	1 55 @ —	FALL, 1892.	
Black Cal	1 10 @ 1 26½	San Joaq'n, plain	6 @ 8½
Do Oregon	— @ —	do mountain	9 @ 11
Gray	— @	do lamb	8 @ 9
Rye	1 12½@ 1 15	HONEY.—1892 CROP.	
Wheat, milling.		WhiteComb, 2-lb	9½@ 12½
Gilt edged	1 41½@ —	do do 1-lb frame	11½@ 14½
Do Choice	1 38½@ —	White extract'd	7 @ —
Do fair to good	1 36½@ —	Amber do	6½@ 7
Shipping, cho'ce	1 33½@ —	Beeswax, lb	25 @ 28
Do good	1 30 @ —		
Do fair	1 27½@ —		
Common	1 25 @ —		

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, Aug. 31, 1892.

Limes, Mex	5 00 @ 6 00	Beets, sk	— @ 75
Do Cal	— @ —	Carrots, sk	40 @ —
Lemons, box	1 00 @ 6 00	Okra, dry, lb	15 @ —
Do Sicily choice	7 50 @ 9 00	Do green box	25 @ 10
Strawberries, per chest—		Parsnips, ctl	— @ 1 25
Longworth	6 00 @ 8 00	Peppers, dry, lb	10 @ —
Sharpless	4 00 @ 6 00	Do grn Chili, bx	20 @ 35
Raspberries, ch.	6 00 @ 8 00	Do do Bells	20 @ 35
Peaches, box	50 @ 75	Turnips, ctl	75 @ —
Do Mountain	85 @ 1 00	Cabbage, 100 lbs	45 @ 55
Bl'kberries ℔ ch	3 00 @ 5 00	Garlic, lb	— @ —
Figs, blk box	50 @ 75	Squash, Sum, bx	35 @ 50
Apples	40 @ 90	Tomatoes	— @ —
Do Gravenstein	75 @ 1 25	Do River lrg bx	20 @ 30
Crabapples	50 @ 75	String Beans, sk.	60 @ 1 00
Canteloupes, pr crate	40 @ 65	Cucumbers, box	20 @ 40
Melons, pr 100	5 00 @10 00	Mushrooms	— @ —
Nutmegs, ℔ box	25 @ 35	Egg Plant, bx	40 @ 50
Grapes, pr box		Green Corn, box	25 @ 1 00
Do White	40 @ 60	Mar'fat Squash, ℔ ton	10 00 @20 00
Do Black	35 @ 75		
Do Muscats	40 @ 1 00		
Do Tokays	65 @ 1 25		
Prunes, Hung'n	50 @ 65		
Do German	70 @ 85		
Plums, ℔ box	50 @ 65		
Pears, Bartlett.	50 @ 75		
Do do choice	1 00 @ 1 50		

Fruit in bulk to canners: Pears, 1½@2½. Plums, white, 1½@2½; colored, 1@1½; Peaches, freestone and clings, 2@3. Extra choice fruit for special purposes sells at an advance on outside quotations.

Wine.

Red and White Wine from bay counties, vintage of 1891, per gal. in cellar lots	10 @	15

Auction Sales of California Fruits.

At Chicago.

Aug. 25.—Five carloads: Bartlett Pears, $2 50@3; some overripe, $1.55@2; Clapp's Favorite Pears, $1.60; Crawford Peaches, 75c@$1.15; Peaches, $1,15; White Free Peaches, 75c; Kelsey Japan Plums, $1.20; Egg Plums, 80c@$1.15; Gros Prunes, $1.15; Silver Prunes, 3-inch boxes, 65c; French Prunes, $1.05; Fellenberg Prunes, $1@1 25.

Aug. 25 —Ten carloads: Bartlett Pears, $1.35@3.10; overripe 70c@$1.25; Peaches, 25c@$1.15; Grapes, 35c@$2.45; Prunes, 75c@$1.30; Beurre Clairgeau Pears, $1.05@1 20; Malaga Grapes, 60c@$1.25; Gros Prunes, 35c@$1.25; Fellenberg Prunes, $1;20; Susquehanna Peaches, $1.15; Plums, 70c@$1.10; Seckel Pears, 35c; Beurre Hardy Pears, $1.15@2; Japan Plums, $1.15; German Prunes, $1.25.

Aug. 26.—Twelve carloads: Bartlett Pears, 40c@$2.50; Gros Prunes, $1.10@1.25; Hungarian Prunes, $1.20; Egg Plums, $1@1.15; Fellenberg Prunes, 55c@$1.10; Beurre Clairgeau Pears, $1.20@1.30; Lemon Cling Peaches, 50c; White Cling Peaches, 55c; Plums 90c@$1.10; Malaga Grapes, 50c@$1.05; Muir Peaches, 75c@$1,05; Orange Cling Peaches, 50@85c; Crawford Peaches, 25c@$1.10; Susquehanna Peaches, 20c@$1.20; Nectarines, 65@70c; Japan Plums, 80c@$1.10; Salway Peaches, 60c; McDevit Clings, 65c; Muscat Grapes, 35c@$1.50; for half crates; double crates, $2 75; Tokay Grapes, $1@2 60; Prunes, 35c@$1.25; Silver Prunes, 90c@$1; Columbia Plums, 75c; Rose de Peru Grapes, 60c; F. B. Grapes, 70c. All ventilated cars arriving in bad order.

Aug. 26.—Six carloads: German Prunes, $1.10@1.20; Gros Prunes, $1.20; Golden Drop Plums, 75c; Japan Plums, 95c; Egg Plums 75@85c; Columbia Plums, 80@85c; Ickwith Plums, 85c; Susquehanna Peaches, 95c@$1.05; Muir Peaches, 85c; Bartlett Pears, $2@2.40; Tokay Grapes, half crates, $2.40@2 65; Muscat Grapes, half crates, $1.25@1.30; Rose de Peru Grapes, full crates $1.45; Black Malvoise Grapes, half crates, 70c. Some fruit overripe and unsound sold for less.

Aug. 27.—Seven carloads: Gros Prunes, $1.05@1.10; German Prunes, 75c@$1.10; Silver Prunes, 75@85c; Hungarian Prunes, $1 10; Quackenboss Plums, $1.05; Golden Drop Plums, 80c; Magnum Bonum Plums, 75c; Bradshaw Plums, 75c; Columbia Plums, 85c@$1.25; Kelsey Japan Plums, 80c@$1.10; Red Nectarines, $1; Tokay Grapes, half-crates, $1 25@2; Muscat Grapes, half-crates, $1; Fontainebleau Grapes, half-crates, 80c; some Grapes unsound sold for less; Susquehanna Peaches, 75c@$1.10; Orange Cling Peaches, 60@90c; Lemon Cling Peaches, 60@75c Golden Cling Peaches, $1 05; Muir Peaches, 75c; Early Crawford Peaches, 90c; Late Crawford Peaches, 95c; Bartlett Pears, 60c @$1.25.

Aug. 27,—Nine carloads: Bartlett Pears, $1.30@2 50; Bartletts, bad order, 70c@$1 20; Peaches, 35c@$1.10; Plums, 65c@$1.40; Prunes, 70c@$1.40; Grapes, 45c@$1.30; Gros Prunes, 75c@$1.05; Japan Plums, 70@90c; Muscat Grapes, 30c@$1.55; Tokay Grapes, 70c@$1 75; Howell Pears, $2.10; Onondaga Pears, $2.10; Beurre Hardy Pears, 80c@$2.15; Cling Peaches, 75@90c; Beurre Clairgeau Pears, $1.50; Quinces, $1.25.

August 29.—Seven carloads: Howell Pears, $2.35; Bartlett Pears, $1 80; Beurre Clairgeau Pears, $1.75; Duchess Pears, $1.50; Beurre d'Anjou Pears, $1 50; Gros Prunes, 80c@$1 10; German Prunes, 80c@$1.15; Fellenberg Prunes, $1,10; Hungarian Prunes, $1; Columbia Plums, $1.05; Egg Plums, 85c; Japan Plums, 75c@$1 05; Red Nectarines, 90c@$1; Orange Cling Peaches, 80@90c; Susquehanna Peaches, 85c@$1.15; Golden Cling Peaches, $1; Lemon Cling Peaches, 75c; Tokay Grapes, half-crates, $1.90@2; Muscat Grapes, half-crates, 85c@$1; Fontainebleau Grapes, half-crates 90c@$1. Some overripe fruit sold for less.

August 29.—Nine carloads: Bartlett Pears, $1@2.40; half boxes, Bartletts, 85c; Tokay Grapes, 80c@$2 25 ℔ single crate; Muscat Grapes, 45c@$1.25 ℔ single crate; double crates, $2.25; Peaches, 50c@$1.20; some rotten, 20c; Prunes, 70c@$1.20; Grapes, 55c; Bradshaw Plums, 65@85c; Nectarines, $1@1.25; Japan Plums, 75c@$1.15; Rose de Peru Grapes, 40@50c; Plums, $1.10; Beurre Hardy Pears, $1@2.05; Columbia Plums, $1.05; Fellenburg Prunes, $1.10; Gros Prunes, $1.25.

At New York.

Aug. 25.—Three carloads: Barlett Pears, $3.10. Fellenberg Prunes, $1.40; French Prunes, $1 05; Silver Prunes (3-in. boxes), 55c; Egg Plums, $1.15; Susquehanna Peaches, 85c; White Free Peaches, 85c.

Aug. 25.—Five carloads: Late Crawford Peaches, 75c@$1.05; Early Crawford Peaches, 65@80c; Susquehanna Peaches, 80@95c; Cling Peaches, 85@95c; Muir Peaches, 75@80c; Orange Cling Peaches, 95c; Bartlett Pears, $1.30@3.30; French Prunes, 85c; Muscat Grapes, 55@80c; Tokay Grapes, $1.45@2.35; Figs, $1.10@1 55; Pears, $1.10@1.50; Gros Prunes, $1,20@2; German Prunes $1 60; Columbia Plums, $1@1.25; Egg Plums, $1 35@1 65; Nectarines, $1,15; Japan Plums, $2.10. Weather very hot and raining.

Aug. 26.—Six carloads: Bartlett Pears, $1.45@2.10; Santa Fe car, very bad order, $1 30@1.65; Orange Cling Peaches, 40@75c; half-boxes, 45c; Gros Prunes, $1.25@1.90; Fellenberg Prunes, $1.55; Bulgarian Prunes, $1 30; Columbia Plums, $1,20; Late Crawford Peaches, 70c@$1.25; Susquehanna Peaches, 90c; Bradshaw Plums, 70c; Fontainebleau Grapes, 52c; Pears, $1.45@1 55; Cling Peaches, 40@75c.

August 29.—Six carloads: Bartlett Pears, $2 35@2.95 some unsound, $1@1.30; Beurre Hardy Pears, $2.40; Congress Pears, $2.40; Fellenberg Prunes, $1.70; Gros Prunes, $1.20@1 60; German Prunes, $1.20@1.26; Bulgarian Prunes, $1.10; Hungarian Prunes, $1.20@1.45; Silver Prunes, 65c@$1; Red Nectarines, 90c; Susquehanna Peaches, 60c@$1 10; Golden Cling Peaches 90c; Orange Cling Peaches, 50@85c; Muir Peaches, 55@60c; Late Crawford Peaches, 70c; Lemon Cling Peaches, 70c; Quackenboss Plums, $1@1.20; Columbia Plums, 70@90c; Bradshaw Plums, 60@80c; Japan Plums, 85@90c; Egg Plums, 55c@$1.05; Tokay Grapes, half-crates, $2 20@2.35; Black Malvoise Grapes, half-crates, $1.10;

August 29.—Eight carloads: Bartlett Pears, $1.05@2.70; Yellow Peaches, 75c@$1.30; Late Crawford Peaches, 60c@$1.25; Nectarines, $1.50; Orange Cling Peaches, 45@70c; half-boxes, 40@45c; Cling Peaches, 40c@$1.20; Bradshaw Plums, 60c; Columbia Plums, $1 15@1.25; Prunes, 95c@$1.65. Ickworth Plums, 65c; Japan Plums, $1.40; Fellenberg Prunes, $1.15@1.35; Bulgarian Prunes, $1.10; Susquehanna Peaches, $1.08; Peaches, 80@90c; Muscat Grapes, 45c@$1.65 per single crate; Tokay Grapes, $2.60@3.30; Grapes, 55c@1.30; Figs, $1.55; Gros Prunes, $1.30@2; Malaga Grapes, 60c; Buerre Clairgeau Pears, bad order, 60c@$1.05.

At Boston.

Aug. 25.—Three carloads: Gros Prunes, 80c@$1.50; German Prunes, 95c; French Prunes, $1@1.35; Italian Prunes, $1.15; Silver Prunes, $1.05@1 10; Egg Plums, 85c@1.45; Columbia Plums, 85c; Bradshaw Plums, 85c; Early Crawford Peaches, 75c$1.10; Orange Cling Peaches, 85c@$1.10; Susquehanna Peaches, $1 05@1.30; Muir Peaches, 95c; Bartlett Pears, $1@1.80; Howell Pears, $1.10@1.25; Beurre Hardy Pears, $1 20; Easter Beurre Pears, $1.45; Late Crawford Peaches, $1.35.

Aug. 26.—Two carloads: Susquehanna Peaches, $1.10; Golden Cling Peaches, $1.35; Orange Cling Peaches, $1.15; McDevitt Cling Peaches, $1 25; Foster Peaches, $1.25; Muir Peaches, $1.15; Weaver's Favorite Peaches, $1.50; Muscat Grapes, good condition, half-crates, $2.50; Rose de Peru Grapes, half-crates, $1.60; Red Nectarines, 95c; Bradshaw Plums, 90c; Columbian Plums, 80c; Purple Duane Plums, 85c; German Prunes, 90c.

Aug. 27.—Two carloads: Gros Prunes, $1@1.40; Quackenboss Plums, $1.20; Columbia Plums, 75c; Imperial Plums, 95c; Egg Plums, 95c@$1.05; Bartlett Pears, 90c@$1.25.

August 29.—Three carloads: Early Crawford Peaches, $1.35; Susquehanna Peaches, $1.15; Orange Cling Peaches, $1 05@1.20; McDevitt Cling Peaches; $1.25; California Cling Peaches, $1.05; Gros Prunes, 95c@1.55; German Prunes, 95c; Fellenburg Prunes, 95c; Silver Prunes, 75c@$1.10; Bradshaw Plums, 95c; Yellow Egg Plums, 95c@$1.40; Columbia Plums, 80c@$1.

At Minneapolis.

Aug. 25.—Three carloads: Peaches, 65c@$1; Pears, $1 30@1.70; Muscat Grapes, $1.45; Bartlett Pears, $2.05@2.25; Plums, $1.15@1.50; Gros Prunes, $1.65.

Aug. 26.—Two carloads: Bartlett Pears, $2@2.15; Yellow Egg Plums, $1.25@1.30; Bradshaw Plums, $1.15@1.65; Japan Plums, $1.85; Gros Prunes, $1.55@1.65; Fellenberg Prunes, $1 15.

Aug. 27.—Two carloads: Gross sale of the two cars, $2388; Peaches, $1.25@1.40; Tokay Grapes, $2@2.35; Rose de Peru Grapes, 75c@$1; Muscat Grapes, $1.55.

August 29.—Two carloads: Bartlett Pears, $1.40; Beurre Hardy Pears, $1.25; Beurre Clairgeau Pears, $1.35. The fruit was in bad order.

At Omaha.

Three carloads: Peaches, $1@1.20; Plums, $1@1.50; Grapes, 15c@$1; Pears, $1 50@2.25.

At Montreal.

Aug. 25.—Two carloads: Crawford Peaches, $1 25@1.30; Orange Cling Peaches, $1.35; Lemon Cling Peaches, $1.30; Susquehanna Peaches, $1.30; Foster Peaches, $1.25; Yellow Egg Plums, $2; Bartlett Pears, $1.65@1.35.

August 29.—Two carloads: Late Crawford Peaches, $1 60@1.70; Orange Cling Peaches, $1.50@1.60; Susquehanna Peaches, $1 50@1.60; Lemon Cling Peaches, $1.45@1 60; Columbia Plums, $2.05; French Prunes, $2.15; Silver Prunes, $2.35; Bartlett Pears, $2.10; Tokay Grapes, half crates, $2.60.

Agricultural Fairs.

State Fairs.

STATE.	PLACE AND SEC'Y.	DATE.
Oregon	Salem, J. T. Gregg	Sept. 12-17
California	Sacramento, Edwin F. Smith	Sept. 5-17
Washington	Spokane	Sept. 19-24
Nevada	Reno, C. H. Stoddard	Sept. 10-14
Western Washington Industrial Exposition	Tacoma	

District Fairs.

NO.	PLACE AND SEC'Y.	DATE.
2	Stockton	Sept. 19-Oct. 1
4	Petaluma, Dr. Thos. Macleay	Aug. 29-Sept. 3
5	Santa Clara, George H. Bragg	Sept 26-Oct 5
6	Los Angeles	Oct. 3-5
7	Salinas City, J. J. Kelley	Oct. 4-8
9	Rohnerville, G. Uuderwood,	Sept. 19-23
10	Yreka, C. S. Smith	Oct. 5-8
11	Sierraville, Fred Blinman	Oct. 3-7
12	Lakeport, H. A. McCraney	Sept. 27, Oct. 1
13	Marysville, G. R. Eckart	Aug. 28-Sept. 3
14	Santa Cruz, Oscar L. Gordon	Oct. 10-15
15	Bakersfield. J. J. Kelly	Oct. 11-16
16	San Luis Obispo, J. H. Barrett,	Sept 27-Oct 1
18	Independence, C. W. Craig	Sept. 27-30
20	Auburn, F. D. Adams	Aug. 30-Sept. 3
21	Fresno, J. M. Reuck	Sept. 26-Oct. 1
22	Escondido, G. M. Dannals	Sept. 21-24
23	Concord, F. L. Loucks	Aug. 29-Sept 3
26	Ione, C. T. La Grave	Sept. 27-30
27	Redding, H. R. Hodson	
28	San Bernardino	
31	Hueneme, T. H. Merry	Aug. 30-Sept. 3
32	Santa Ana, W. A. Beckett	Oct 3-7
33	Hollister, A. D. Shaw	Oct. 11-15
34	Susanville, C. E. Emerson	Sept. 3-7
35	Merced	
36	Vallejo	Oct. 4-8
37	Lompoc, W. I. Nichols	Sept. 20-23
38	Modesto	Sept. 28-Oct. 1
	—Glenn Co. Willows, W. V. Freeman	Aug. 9-13

A PENNY SAVED IS A PENNY EARNED.

This trite, homely but wholesome adage forms the foundation upon which the success of the Pacific Coast Home Supply Association has been built. Its rapid advancement and splendid success attests the solidity and permanence of the foundation, and assures a future of great promise. Its friends are scattered over a wide expanse of territory, but there are still many who might use the opportunities placed within the reach of consumers who have thus far neglected to do so, because they have failed to fully realize the advantage of always purchasing their goods at the lowest possible figure. There is perhaps no one who pays so little attention, or devotes so little time to the comparison of prices, as the farmer. He is in the habit of buying at the nearest point and paying whatever may be asked for the commodities wished, without going to the trouble of receiving quotations from the centers of trade, where conditions are such that he could and would obtain better rates.

The Pacific Coast Home Supply Association, by shipping direct to consumers, has adopted a plan which enables its patrons to buy whatever they may need at the very lowest cash price, and the success of the enterprise has demonstrated most conclusively that there existed a splendid opportunity for this kind of work. In fact, since this concern was established, a number of men have attempted to follow in their footsteps, but in nearly every instance they were imitators without either the originality or force to accomplish the same kind of work, and as a result have been unable to continue in the business.

Sometimes the Pacific Coast Home Supply Association has been compelled to bear the blame of the mistakes and inability of these men to perform what they promised. This does not demonstrate that the plan is not feasible or advantageous to those who use it, but it is another evidence that it is always best to deal with the best concern of its kind.

Those who have not yet become thoroughly acquainted with the method of work, and what can be done in the way of purchasing goods at almost first cost, would do well to investigate this matter thoroughly, and they will find that they will not only save pennies, but in many instances dollars, on the necessary purchases of each season.

The home office is at 132 Market street, San Francisco, but, since starting, the increase of business has been so rapid and widespread, that it has been necessary to establish supply depots in Los Angeles, California; Portland, Oregon; and in Honolulu, H. I.

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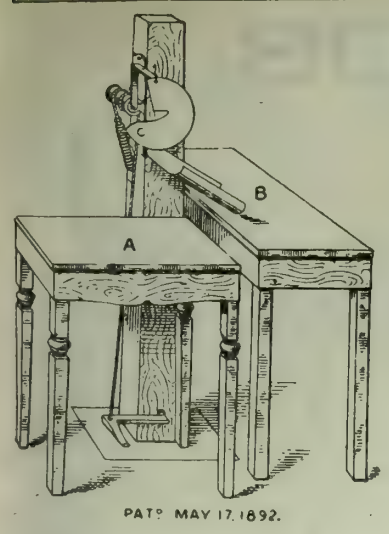

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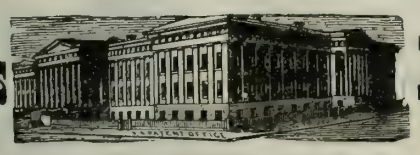
Scientific Press  **Patent Agency.**

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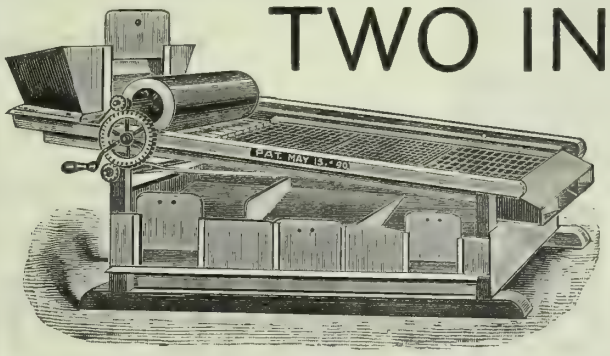

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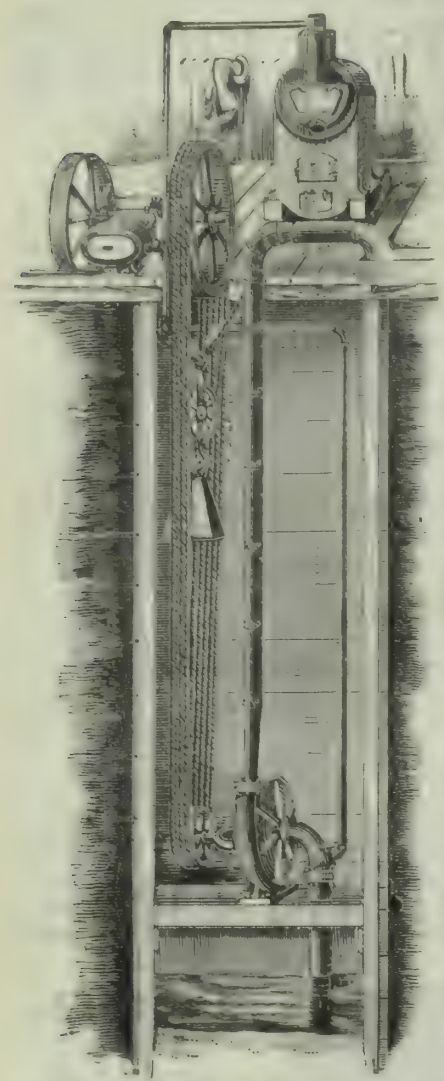

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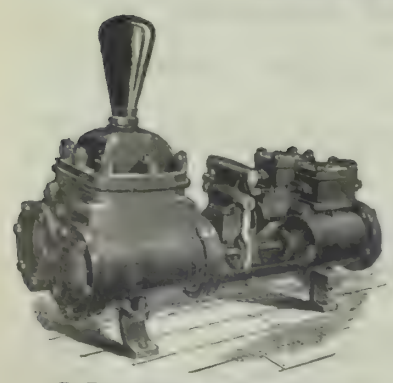

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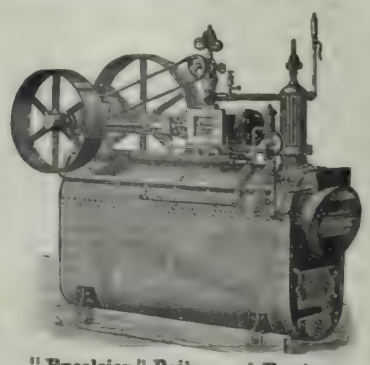

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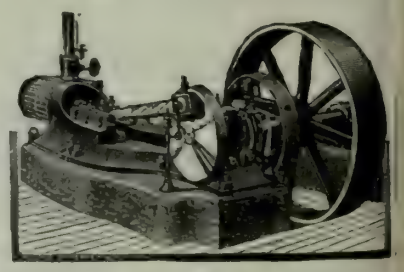

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PACIFIC RURAL PRESS

Vol. XLIV. No. 11. SAN FRANCISCO, SATURDAY, SEPTEMBER 10, 1892. THE DEWEY PUBLISHING CO Office, 220 Market St.

The World's Fair Buildings and Grounds.

As in ancient times all roads led to Rome, so in present days all fairs point to the great Exposition at Chicago. Naturally the best which the local fairs bring to light will be gathered in to honor the greater occasion. This fact is giving increased interest to our district and State displays. In an issue of the RURAL fitting the occurrence of the California State Fair at Sacramento we cannot do better than cater to the general interest in the World's Fair by presenting a birds-eye view of the grand outfit now far advanced in preparation for next summer's millions of visitors.

A beautiful and suitable site was selected for the exposition, containing fully one thousand acres, charmingly situated on the shore of Lake Michigan. Jackson Park, in the southern section of the city, was selected as the site for the main exposition; the Lake Front, near the heart of the city for part of it, and the Midway Plaisance and Washington Park adjoining Jackson Park for other parts. Upon these parks there had already been expended nearly $4,000,000 in improvements prior to their being selected as the exposition site.

In the winter of 1891 the portion of Jackson Park to be used for the fair was a soft, marshy ground, shelving in irregular stretches to the water line. Now it is a firm level, a smooth, sandy surface upon a clay subsoil. It is now a level surface to the line of the lake, a surface a mile and a half in length and, at its southern extremity, nearly a mile in width.

As shown in the view upon this page, the available water has been grandly used in the design of the grounds. There is a large lagoon enclosing an island upon which some native trees are retained, while all other space has been fully planted by the horticultural department. The introduction of this island affords a natural scene in refreshing relief to the grandeur of the buildings, and, through its sylvan qualities, to the crowded and busy aspect that must be looked for almost everywhere else wi hin the grounds.

In the picture a canal is seen to extend southward along the main building, and into a large water basin which is to form the center of a great square about which the principal buildings of the Exposition are grouped. Fountains will be in operation in this basin, forming a brilliant spectacle in the sunlight, or when illumined by colored incandescent lamps at night. The banks of these land-locked bodies of water are to be finished in a manner appropriate to the various localities through which they pass. The borders of the canal and the basin in the court will have embankments of stone or brick, surmounted by parapets or balustrades of stone, iron, brick or terra-cotta, and opening upon steps and landings, for the use of boating parties. In fact, much of the travel from building to building will be by means of passenger boats upon these waters. This facility of movement will be grateful when the visitor finds extreme objects of interest over a mile apart.

Many of the buildings shown in the view have already been separately illustrated and described in our columns. The lines under the engraving will serve to locate leading structures. One of the most interesting features perhaps is the pier shown in the foreground, which has been constructed 1000 feet into Lake Michigan. The floor of this pier slopes gently from the shore, so that visitors who arrive by water may get an unobstructed view of the court and its surroundings, the paved beach covered with people, and the architectural grandeur of the most imposing and important buildings of the Fair.

Although the California building is not shown in the engraving, its location is designated. The other buildings not named are those erected by different States and foreign governments.

BIRD'S-EYE VIEW OF THE WORLD'S COLUMBIAN EXPOSITION, CHICAGO.

Every effort will be made for the accommodation and comfort of visitors. All walks and outdoor places for assemblages of people will be furnished with numerous seats and resting places, and will be paved with mosaics of brick, stone or concrete blocks, except where gravel or stone chips may seem more expedient. The grounds will, of course, be highly ornamented with shrubs, trees, turf and flowers, most of which have been planted.

HALF RATES ON PERISHABLE EXHIBITS—The Transcontinental Association, of which all the extreme western railroads are members, has notified the Traffic Department of the World's Fair of its willingness to make a half rate on perishable property and other exhibits which will not be returned. In the matter of ordinary exhibits, the former arrangements of full tariff rates on the forward journey and free return still holds good.

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Our latest forms go to press Wednesday evening.

ALFRED HOLMAN.....General Manager

SATURDAY, SEPTEMBER 10, 1892.

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Cider Mills and Presses—Baker & Hamilton.
Bargains in Property—John F. Byxbee.
Fruit Trees—W. W. Will, Oroville.
Fruit and Shade Trees—R. W. Bell, Santa Rosa.
Ranch to Rent—Maurice Keatinge, Lower Lake.
Tabules—Ripans Chemical Co., New York.
Incubators—Reliable Incubator and Brooder Co., Quincy, Ill.

☞ *See Advertising Columns.*

The Week.

By the time this issue of the RURAL reaches the reader the State Fair will be in full blast, and still with more than a whole week to run. Any one who can get to Sacramento between the 12th and 17th will find a mine of entertainment, diversion and instruction. As we go to press (on Tuesday this week because of the holiday on Friday) reports show that the fair will be as great as promised, and the novel features will be exceptionally attractive. Let all who can attend.

This is a week of two holidays. Monday, "Labor Day" was made a holiday by the Governor, and it was as generally observed as a new institution could be expected to be. Some celebrated by recreation and parade, others by working a little harder than usual—suiting the action to the word. Each has his own right to his method.

Admission Day, Sept. 9th, is a day especially dear to Californians and likely to be more highly esteemed as time wears on. It is the birthday of the Commonwealth of California, and since Uncle Sam has recently increased his family by twins and various other multiples, California is becoming a big sister, and has a right to command the respect of the youngsters.

By the way, this is to be a sort of a holiday autumn. September has two days; October one—Columbus Day, on the 21st; November two—Election and Thanksgiving Days. With such respites from toil, we ought to be able to struggle along until Christmas. Holidays are nice, it is true, but they are very awkward sometimes to business affairs. The farmer, as a rule, cannot pay much attention to these new marks on the calendar; if he has work to do, he has to do it. He has to rest and recreate according to his own schedule. Make it as open as you can, friends. It will be good for you and your families.

WRONG CREDIT.—We are informed that the articles on vine-training by Wm. Pfeffer, which we recently reproduced, should have been credited to the *Santa Clara Valley* of San Jose rather than to the journal we named, which seems to have copied them without credit. Let the honor go to the merit. We regret our share in its perversion.

REPORTS from all parts of Canada indicate that the crops will be as large in quantity and of more satisfactory quality than those of last year.

A Government Sugar Station in California.

Much interest pertains to an enterprise which will be entered upon in this State through the zeal and persistence of Hon. A. Caminetti of Amador county, who made a good record for activity and accomplishment during his first session as a California member of the House of Representatives. Though he had greater undertakings on hand, Mr. Caminetti was possessed with a deep conviction that California should make systematic experiments with cane sugar production. The result of his effort was an appropriation of $20,000 for the first year, with which will be established three stations specifically devoted to experiments with cane sugar, one in Florida, another in Kansas and a third in California. To show the aims and purposes of this measure as applied to California, we make the following extract from a speech made by Mr. Caminetti near the close of the last session of Congress and published in the *Congressional Record:*

In support of the provision of the bill now under consideration, placing it in the discretion of the Secretary of Agriculture to make experiments in the planting of sugar cane, and the production of sugar therefrom, on the reclaimed swamp lands of either the Sacramento or San Joaquin valley, in California, I desire to submit the reasons that prompted me to offer the suggestion in the Committee on Agriculture.

While considering the financial necessities of the Department of Agriculture for the next fiscal year, the item appropriating money to continue experiments for existing sugar stations was carefully examined.

It appeared at the hearing thereon that at least one station would be discontinued at the end of this year, the object of its locat on having been accomplished. It further appeared that at the station in Florida remarkable success was obtained in both quality and quantity of production. While Prof. Willey was stating the probable cause thereof, the fact developed that the experiments had been made on reclaimed swamp lands of a like character with thousands of acres situated in the valleys mentioned.

This induced me to enter them for the coming vacancy.

I rely upon the qualities of our soil and existing favorable conditions to justify the action of the committee. I have investigated the climatic characteristics of Florida, and find many points of resemblance with those of California. This accounts for the success both have attained in the cultivation of citrus and other fruits.

I quote a few extracts from a report on the Florida sugar fields:

"It was altogether beyond belief at first, that any one should be wild enough to talk of turning the Florida sand into cane juice. But the rumor came from many quarters, and at length, after an interval of a year or two, came the report that sugar had actually been raised in Florida. The objection I sometimes heard urged, that occasional frosts would injure the cane, was of no moment; for sugar has long been profitably raised in Louisiana, where they not only have heavy frosts, but have also thick ice, and sometimes snow."

This offers our people encouragement, as it tends to demonstrate that success awaits its cultivation in California.

The beet-root sugar industry is an established fact with us already; and there is no doubt in my mind that the experiment to be inaugurated will fare equally well.

The policy of the Government in granting a liberal bounty to the sugar-producer commits us to proper effort in hastening the time when the home market may be entirely supplied from our own plantations.

In furtherance of which purpose science and skill should be directed toward the discovery of methods to cheapen the cost of cultivation and augmenting the product within the present field of operations.

As our home consumption, in addition to the domestic product, calls for large importations of foreign sugar, thus crediting other nations in our trade rela ions with many millions of dollars annually, it is obviously sound public policy to extend this field of research in new regions.

The success of the proposed experiment will introduce a new branch of agriculture on the Pacific coast, yielding a ready revenue and adding to the locality suited to its cultivation by the establishment of factories, giving employment to many people.

The station to be established will be under the direct control of the United States Department of Agriculture. Machinery already owned by the Government, and now in Louisiana, will be moved to this State for the equipment of the new station. Mr. Caminetti has had especial reference in his work to the lands of the San Joaquin and Sacramento rivers, naturally moist and rich, and of which there are vast areas which await profitable uses. Tenders have already been made of suitable tracts of thirty to forty acres each. We presume it will not be long before steps are taken to make a suitable selection and to begin the work contemplated by the appropriation.

PROF. HILGARD'S LETTERS.—As will be seen by a short letter in another column, Prof. Hilgard has arrived abroad and has already put into practice his characteristic powers of close observation and graceful description. His brief sketch of the new in Germany will interest many Californians who are, like him, a generation removed from the old life in that country. The note which we print this week will serve excellently to the series of letters which we expect to receive from him for the edification of his hosts of friends in this State. He naturally desires to maintain the cordial interest and the free intercommunication which are mutually enjoyed by him and his California audience, and his letters of European agriculture as seen by an expert Californian, will retain for him the place so freely accorded him for his excellent public addresses, reports and bulletins. We are glad to promise our readers much in this line, especially as this winter's travels will probably take him into southern Europe, where so much is being done which Californians desire to know about.

Our Hay and Our Animals.

Prof. Henry of Wisconsin, whose visit we noticed last week, made a point in an interview with a San Francisco reporter, which we would like to emphasize as coming from an unprejudiced eastern observer. He is reported to have said:

The speed and draft horse in this region should be superior to any in America, because with racing-stock, for instance, outdoor exercise can be given almost every day, and for the major part of the year green food can be obtained. Again, these facts show the beneficent climate for the horse, whereas in the East for weeks the horse is snowbound in his stable, deprived of both exercise and green food, and fed with hay that is somewhat injurious, as compared with the wild hay of California.

Now, as to the hay of this State, it is much freer from dust than the eastern article, and therefore much brighter in color. It has none of the mildew dust or mold that we find in the East, and as an article of food is superior to most of what we have. Of course there is some dust in California hay, but it is not as injurious to stock as the dust that abounds in the eastern article, and which we endeavor to reduce to the minimum. The more I study stock-raising conditions out here, the more am I convinced of the presence of all those factors that go to produce a superior animal. A wise use of those factors is necessary, however, and I find a commendable amount of wisdom in that direction.

This is a very significant statement. The observation, of course, accords with claims which have been made in these columns for years, and which are the result of common experience and observation by those who have bred and grown gramniverous animals in this State. To have these points approved by a disinterested expert in animal growth and nutrition such as Prof. Henry is acknowledged to be, is of great value to the State.

It is naturally hard to see how animals thrive and grow fat upon dry pastures which are as free from anything green as a "yellow dog," but the lesson is soon learned by observation and this point is conceded. The superiority of our hay crop is not so generally understood nor so freely granted, and for this reason we desire to emphasize Prof. Henry's generous statements.

We admit it is rather startling that a country whose chief summer resource the tourist would pronounce to be dust, should produce so clean a hay crop. Such, however, is the fact. It may be due to several causes. Hay is cut usually before the dust becomes abundant. It is exposed a minimum time in curing, and is gathered almost from the mower into the stack, and from the stack it is baled almost as soon as the machine can be had. The result is that hay cut at the right time, untouched of rain, exposed to the air but a few hours, and then put into a tight bale into which dust cannot penetrate, comes out as bright, clean and fragrant as it is possible for hay to be. Contrast with this the lateness of the eastern hay ripening, the frequent drenching with rain, the abundance also of fungi which attack the eastern grasses while still standing, the prevalence of mildews and moulds in spite of the most energetic work with rake and tedder, the hauling, storage and transfer of hay in mass rather than in bales, and it is clear why it is more difficult to produce good hay at the east than in California.

Our people are often prone to lament the ill success of eastern meadow and pasture grasses in this State. The regret is to a great extent an idle one, although it may be freely admitted that we could be much better off than we are in permanent pastures in regions of the State not suited for the growth of alfalfa. We have, however, plenty to rejoice over in our situation as animal feeders, and the points made by Professor Henry should bring consolation to those who are prone to find all good in memory and none in present possession.

And yet there is a good proportion of wretchedly poor hay in California. Prof. Henry made his latest observations in the stables at Palo Alto and those of great companies in this city. The buyers for these concerns know what good hay is, and know that the best is the cheapest and will buy no other. But there is poor hay, the result of carelessness in late cutting, overexposure to the elements, deferred baling and a dozen other things which the lazy hayfarmer knows how to do. These things are not, however, chargeable to the State nor its climatic conditions. They are the result of personal ill-management in the face of the most favorable conditions. There should be much less of it.

EARLY HOP SHIPMENTS.—Sacramento and Wheatland seem to be running a close race in early shipments of hops this year. The first bale of Sacramento hops shipped this season was by the firm of Lilienthal & Co., of San Francisco, on August 27th, and was grown on the ranch of R. J. Merkley. The first carload of Sacramento hops was shipped by the same party from the ranch of George Menke, and was consigned to Lilienthal Bros., of New York, the shipment being made on Sept. 2d. On the same day a carload was shipped from Wheatland, from Rodda Bros.' yard, and billed to Horst Bros. of New York. The quality is said to be extra fine this year.

The Cholera Plague.

The cholera reports grow worse and worse. In Russia the deaths during the past week have numbered about four thousand per day and the plague, which at first was confined almost exclusively to the poorly-fed and poorly-housed peasants, is attacking the middle and upper classes. All hope of checking it is past and the stricken people can only wait and pray for the coming of frost. The disease is rapidly spreading in western Europe, but has not yet become epidemic anywhere except in Hamburg. There the situation is indeed deplorable. The death-rate is now about two hundred per day and is increasing with frightful rapidity. Business is suspended and all who can get away have fled from the stricken city. A correspondent, writing from Hamburg on Sunday last, says:

One funeral after another rolls by our house, which stands on a road leading to several cemeteries. Now it is a costly cortege, an imposing hearse drawn by four horses, then appears a curiously-clad leichenbitter in knee breeches, buckled shoes, wide collars and barretas, and last the mourning coaches, mostly without clergymen. After this imposing show come much simpler hearses, dashing along at full speed to the graveyard. There is a fearful number of these vehicles, all laden with the bodies of children. A heavy rumbling announces the approach of one of those abominable wooden boxes on wheels, which fetch the pauper victims of the plague from their dwellings. Faster horses draw the cholera carriages on their way to the hospital. They are large, comfortable landaus and well padded. On the box sits the driver and a hospital attendant, while another overworked attendant stares blankly and apathetically from inside the carriage at the crowd which the passage of these vehicles invariably attracts. Now and then some one tries to get a glimpse of their contents. From every carriage comes the odor of carbolic acid. We seem to smell nothing else here. We get it in the water, with which we wash and rinse our mouths; floors are washed with it, and clothes are soaked with it. We eat nothing but dry, toasted bread, with coffee. Butter, cheese and vegetables are shunned. On the breakfast table lies the *Hamburger Nachrichten.* We open it eagerly. A sudden noise disturbs me as I write this. In the street all is excitement. From the window we see at the next corner a workman staggering like a drunken man. He seats himself on a doorstep almost doubled up and then falls to the ground. The kinder-hearted ones among the bystanders bring him brandy. Quickly the police arrive, for the victim has grown icy cold and must be helped at once. All the shawls and wraps that can be found are requisitioned. A car arrives, the man is hustled into it and off he goes. Children have been standing close by throughout the episode. Such incidents are not uncommon on the streets of Hamburg.

There is not a considerable city in Europe which is not not in danger of just such a scourge. At London, Manchester, Glasgow, Antwerp, Bremen, Brussels, Havre, Paris—in every city of western Europe, in fact, there are a few cases. Every possible care is taken to prevent contagion, but, in spite of all, the disease slowly and steadily spreads and the danger of universal plague is very serious.

The dread disease reached this country on Thursday of last week, brought from Hamburg by the immigrant ship "Moravia." In her passage of thirteen days there had been twenty-two deaths, and at the time of her arrival two persons were sick. Both have since died. The arrival of the cholera at our own doors was the occasion of immediate alarm. The infected ship was sent to quarantine and strict measures adopted to prevent the landing of other ships from Europe. The President, who was visiting Whitelaw Reid at the latter's farm in New York State, hastened to Washington, and on the following day a proclamation was issued by his authority ordering that "no vessel from any foreign port carrying immigrants shall be admitted to enter at any port of the United States until said vessel shall have undergone quarantine detention of 20 days, unless such detention is forbidden by the laws of the State or regulations made thereunder, and of such greater number of days as may be fixed in each special case by the State authorities." Under this order, the ports of the Atlantic coast are now closed against immigrant ships and against all ships from European ports until careful inspection has demonstrated that they are free from disease. The order came just in time, for on Friday another ship, and on Saturday still another arrived with cholera on board. These two with the first plague ship are now held at quarantine. The wisdom of this policy has been abundantly proved by the spread of the infection among the passengers. On Saturday there were two deaths, on Sunday six, on Monday four. It is, of course, impossible to tell where the thing will stop, but in the meantime everything that can be done will be done to protect both the detained passengers and the public. The authorities are determined to keep the plague at bay, and if it is possible they will do it. There are, however, so many ways by which infection may pass the guard that it is hardly possible to fully protect the country. It is not to be denied that not only New York but all the United States is in imminent danger. The most favorable circumstance is that winter, with its salutary frosts, is not far off.

San Francisco Politics.

There is on foot in San Francisco a movement looking toward united action on the part of those whose interest in politics is founded in regard for good government. Readers of the RURAL do not need to be told that not only in the city election, but in the election of representatives in the legislature, the grossest corruption has prevailed. The city and county of San Francisco has sent to Sacramento on more than one occasion an organized body of scoundrels whose votes and influence have been openly for sale to the highest bidder, and whose presence in the legislature has been a menace to every legitimate interest, and the prolific source of jobberies and robberies. To nobody has this political degradation been more humiliating and harmful than to the great body of respectable citizenship of the city itself. But they have been, or have felt themselves powerless. The chains of party and of partisan organization have bound them down to practical, even though an unwilling, acquiescence in political and moral outrage. At last there is revolt, and such a revolt as promises to throw the old restraints overboard, and to bring the decent people of the city into practical cooperation for better results. The movement is non-partisan, and its leaders pledge themselves to keep aloof from personal candidacy for office. It is proposed to name for the coming election complete city and legislative tickets composed of representative men, chosen in equal numbers from each party. The new league is not a mere coterie of aristocrats with plans so high and mighty as to be beyond the understanding and sympathy of the mass of the people; but it appears to be a genuine popular movement for the betterment of local politics. With such a movement the interior counties ought to sympathize heartily for the interior, almost as much as the city, suffers from the corruptions of San Francisco politics. It will be, we imagine, the sincere hope of every friend of good politics and good government that the non-partisan movement in San Francisco will be as wisely promoted as it has been wisely conceived and that it will end in complete dethronement of the bosses and rings that have heretofore ruled this city, and through the city ruled the State.

Europe Revisited.

An Interesting Sketch by Prof. Hilgard.

HEIDELBERG, Aug. 1, 1892.

TO THE EDITOR:—According to promise I write briefly, before leaving this ever-beautiful place for Switzerland, to convey to your readers a few first impressions of the old country, revisited after an interval of 32 and in part of over 40 years, when, as a student, *fresh* from the *then* "far West" in Illinois, I spent my vacations, mostly on foot, in exploring the "highways and byways of Europe." The country was then (1848 to 1852), as will be remembered, much disturbed by political upheavals, to suppress which the armies of Prussia and Austria were kept quite busy. Thus my former impressions of the industrial and agricultural conditions may have been somewhat less favorable than they might have been in normal times. At all events, they may be summarized in the statement that matters both in Germany and Switzerland appeared to me to be extremely "slow" and unprogressive, more especially the peasant class, who seemed to have little aspiration toward anything better than the old ways and conditions. Other industries also moved only in the beaten tracks, and any innovation or improvement had a hard struggle against pure indolence, which seemed to deem any change unnecessary, if not impious. On landing at the important commercial port of Bremen from the New York steamer, one of my first questions was whether it was a holiday; as, compared with New York, there seemed to be hardly any business going on.

I must say that no such question arose in my mind on reaching the same city in 1892. However brisk may be the rush of business at San Francisco or New York there is now no chance for grass to grow on the streets of Bremen on week days. The electric car is there, and the electric light shines upon the ancient city hall and the queer, old, gabled houses; the whistle of the locomotive-engine, though very mild as compared with the ear-splitting notes of our American iron-horse, is constantly heard, and a very respectable wilderness of telegraph wires suggests the same municipal problems with which American cities are now wrestling. It is but fair to say, moreover, that the impressions received at Bremen were subsequently confirmed in visiting other commercial cities, such as Cologne Mayence and Zurieto. Assuredly, "there is life in the old land yet," whatever may be said of its "effete monarchies;" and the progress made during the interval of, say, 30 years is most striking. Very agreeable, also, is the absence of the vexatious customhouse and passport examinations within the country, which in times past would make the traveler's life a weariness, especially if he happened to be in a hurry. The German empire may not be an ideal polity, but the unification it has brought about in place of the numerous petty subdivisions of old is alone a great blessing. Not the least among the benefits conferred is the uniformity of coins, weights and measures. As regards the latter, the United States have a lesson yet to learn, in the exclusive adoption of the metric system instead of the irrational and troublesome pounds, grains and gallons. As regards the coin (the "mark" of the empire, equal to 25 cents), the only objection I find is that the fond illusion of its "going nearly as far as the American dollar" in living or traveling expenses is rudely dispelled by experience. In the main, a "quarter" brings you just about the same results, whether you call it a mark or a shilling. Mile for mile, railroad fare is quite as high in Europe as in the United States (outside of California local rates), but you rarely have as many miles to travel here as in our country of magnificent distances; and to take a sleeper is a measure resorted to on extraordinary occasions only, the more as these, as well as dining cars, exist only on a few of the great through routes.

Among the most striking symptoms showing that "something is going on," is the frequency of new buildings, finished or in course of construction, whose bright, red-tile roofs (shingles are rarely used) at once attract attention amid the gray mossy ones of the olden time. This is true of the country and villages as well as of the cities. Most of the latter have their "new town" outside of the old lines of walls, moats or other fortifications; and here the buildings, while nowhere ambitious of having from ten to twenty stories, are as modern-looking, and generally more substantially built, than those of the "additions" to American cities. "Brick, mostly pressed, and preferably of a pale cream tint, is the material mostly used for the walls. In the country, most commonly a wooden framework of rather heavy studding is filled in with brick—a mode of construction to be recommended for some of our earthquaky regions in place of the cardboard brick walls that collapse at the first shake.

Another feature very striking to an American, as illustrating the quiet, uncataclysmal climate of Europe, is the slender, almost pencil-shaped chimney-stacks that are everywhere relied upon to stand the worst storms. Few similar structures would even in the relatively gentle breezes of California outlive a single season, and one involuntarily speculates upon the havoc that a single western thunderstorm would work among the wilderness of chimneys that represents the great iron and steel works of the renowned firm of Krupp Bros. at and near Essen, in Westphalia ("Essen" means literally "chimneys," and the name fits the case admirably). It is true that a large proportion of these wand-like stacks serve to supply, maintain and increase the armaments with which the nations of Europe awe each other into mutual respect—that glorious "armed peace" which renders several million of men, in the flower of their age, unproductive of any useful result during two or three years. But it is also true that elsewhere we find these same slender stacks pointing heavenward by the score, serving much more useful purposes, in accord with the wonderful progress of industry during the last 30 years. Many a small town, only a village before, now outnumbers San Francisco in the multitude of these index-fingers of industry. But I am afraid I am disappointing the readers of the RURAL who have been waiting to find something about agricultural matters. In the absence of my trusty Remington—not the rifle but the typewriter—I am constrained to defer that topic to a future communication. I thought it best to draw a general picture of the situation, such as it appears to the American traveler, before going into detail. E. W. HILGARD.

That "Poor Man's Dollar" Again.

MONTEREY, Sept. 2, 1892.

TO THE EDITOR:

'I don't care how hard money is
Ez long ez *mine's* paid punctooal."

Mr. Bard seems to think that the money question is "the most vital, pressing and important issue which the present generation will have to settle." Mr. Editor, I hope not! I hope the world has not yet become so degenerate that there is no more worthy work before us than a trumpery dispute as to currency. One might suppose that it was a new question instead of one old as the hills. My quotation above was written by one of America's greatest patriots some 50 years ago while satirizing the insincere politics of that age. I don't approach this question as a politician nor as a Farmers' Alliance man, but simply as a farmer who remembers and retains the privilege of thinking for himself on any and all questions, regardless of party ties, though one party yesterday did me the honor of nominating me for our State Assembly.

In looking over the first letter in last week's issue, I find Mr. Bard is impressed with the idea that government fixes the value of silver and gold. Most modern governments have retired from the futile effort to fix the price of anything, although the King of the Cannibal Islands may, for aught I know, still have a corner n and fix the price of missionary pie. The price of everything in all civilized countries is regulated by supply and demand. And it don't matter how much any body of politicians may wriggle and squirm, we are, under present mundane conditions, compelled to fall in line with this regulation.

Overestimate the supply by a fictitious demand and down go values. It does not matter if the stimulus is applied to the supply of gold and silver or beans or barley; the same law is continuous as to all commodities. The silver rings call for more silver coin, which the farmers were and are bewitched enough to reecho, found silver at $1.20 only two years ago. How unsuccessful the Government's effort to fix the value of that commodity was can be seen readily by reference to the market price the daily papers, some 74½, I think. You may say, if you wish, that it is gold that is dearer. I say it's *silver that is cheaper.* If the farmer gets his pay in gold, as he can, he may take that gold to buy a great deal more silver than he could two years ago. If I can take a dollar to buy a cental of wheat, I call that cheap, too cheap; but if I can take a dollar and buy two centals, I call that buying the wheat *cheaper;* and I apply like phraseology to silver. So long as free production of silver is allowed, the value of silver is as much bound to vary as the value of sugar. Mining methods have improved and silver is more plenty and cheaper, and where the farmer's kick comes in I don't quite see. I can quite see where the big kick in the silver ring starts, but why that worries the farmer is something no feller can understand. It looks to me that Government, in buying up and salting down some $400,000,000 of silver, has been guilty of something very much akin to class legislation. Government has no more right to bull the silver market than to bull the bean market.

If the Government imprint makes money apart from intrinsic value, or ability to pay in intrinsic value, then why have metal of any value at all, why not all paper, or why not revert to the Spartan coinage of iron? The obvious reason is, it would make the counterfeiter's art too easy and too remunerative. Further, if this view be correct, why does Government tax us at all? Why not roll the money out of some printing-press, instead of our breeches pockets? Why not go further, and hand us a thousand dollars apiece from the same Government press, as the Alliance seems to think is possible?

Your second correspondent, Mr Smith, thinks the gold dollar "dishonest" because above par as regards silver. If I did anything, I should just reverse things here too and call the silver dollar dishonest because below par. *If* you do get fewer gold dollars (and I say *if* only), you can buy more of your neighbor's goods in proportion, so, as a medium of exchange (which is all money is), things remain about the same.

But if legislation could keep gold and silver on a par, I think, in spite of all Mr. Webster (third letter) writes, that England would be only too glad to join us in passing the needful Acts or Bills. Not only is much of her capital invested in silver mines, but the depreciation of silver has been, and *is*, a source of heavy loss and bitter lamentation to one of the most progressive and intelligent classes of her subjects, the Indian civil service and Anglo-Indians generally, involving, as it practically does, a payment of salaries in a debased currency, some two-thirds of its nominal value; Indian accounts being reckoned in silver rupees.

And Mr. Smith is wrong in supposing this question of a debased currency a modern question. If he will turn to Green's History of the English people, he will soon convince himself that any tampering with the coinage has produced nothing but misery, wretchedness and increased poverty among the poorer classes.

It sounds pretty, no doubt, to talk of a "safe, sound and

flexible currency." We all want it; but what does it mean just exactly? What is a flexible currency? If silver is the flexible currency, the farmer can get pay for all he has to sell in silver if he wants it. Would that help him any? If so, how? He can get it all in silver dollars, half-dollars, or quarters, or dimes, or even in nickels. That only means it's more cumbrous to carry—more bulk but no more value.

Why, then, does Mr. Webster think the laborer will be better if free coinage is permitted? There may be a few more miners employed in a somewhat unpleasant and undesirable industry; there may be a few more bonanza kings evolved; the poor man will be paid his hard earnings in "poor man's dollars" and the rich will make their special contracts payable in U. S. gold coin only. Mr. Webster has seen it done before. So have I. And I hate to see it asked for again, because I remember just whose fingers got scorched; and if it was not that same poor man's, I'd like to have Mr. Webster say just whose did.

Finally, what business man would follow the course our Government has in this matter; buying silver in a falling market and salting it down? It would have ruined any combination of millionaires in the land. What would ruin private individuals cannot be exactly healthy for the great American nation.

"If this be error and upon me proved,
I never writ."

Farmers, don't be hoodwinked and cat's-pawed.

EDW'D BERWICK.

Thirteenth District Fair.

MARYSVILLE, Sept. 3, 1892.

TO THE EDITOR:—The enthusiasm of the World's Fair is communicated to every part of the country. As a consequence, every public enterprise is helped along.

In this district, the ninth annual fair will be counted the best. This year preparations have been made in a new way. The county exhibit was collected from the farms by a committee which bears the expense of sending it, after the District Fair, to the State Fair, and later to the Chicago Exposition. As these workers depend for their remuneration upon the premiums received, they have spared no pains to make the whole exhibit the best of its kind.

How they have succeeded is no longer a question when one is once inside the doors. The skill and good taste displayed in the whole plan of arrangement reflects credit on those who have carried the work forward. They have striven to make it not merely the usual fair, but as good in its way as what will be shown at the Columbian Fair in '93.

In the judgment of visitors, the pavilion excels that of any previous year. With a good building, and in the midst of a fine fruit and wheat section, the committee has much upon which to draw.

Through the energy, forethought and artistic skill lent to the work, the results surpass what one might be led to expect. The visitor concludes that nothing is prosaic or homely. A palace *might* be built of turnips, so that, at a proper distance, it would present an imposing appearance. The common products of field and garden are here utilized in charming ways. Certainly, the golden arch near the center of the pavilion is fit for King Midas. Measuring the height with the eye, one looks up until he sees our noble eagle, with wings outstretched, proudly surmounting the whole. Three six-foot men must add their heights to touch the bird's beak. The length of the arch is also 18 feet, and the width is nearly half as much. It may properly be called the gold arch, for it is covered with the gold of Sutter county—*wheat.*

At each end is arranged different cereals, upon a background of yellow grain, to form the date. The arch contains every variety of wheat raised in the county. The foundation is covered with the kernels, while in large letters made of heads of grain, "Sutter County" is printed across the front of the arch. The eagle, with all his lifelikeness, is made wholly of cereals, dark grain forming the wings and light grain the head and body.

Looking through the arch, one sees, on a pedestal ten feet high, a pyramid of glass jars in which are preserved the choicest fruits. The Eastern visitor sees nothing more attractive than these immense peaches, pears, plums and other fruits, natural as if just plucked from the tree. The method by which the natural color of the fruit is preserved will be of untold value at the World's Fair.

An Oriental pagoda made of grapes is one of the most unique fruit displays, the cool, luscious bunches lending themselves gracefully to the shape of the structure.

Amid such a luxuriance of fresh fruit, some provident soul murmurs, "If we might have such fruit all winter." As if in answer to the wish, there it is, cans upon cans in slender columns that meet in curving arches high overhead.

Every fruitgrower looks with more than passing interest at the little steamer apparently just ready to sail with Pomona's cargo. Its pennon bears the name Majestic, and on a streamer is printed, "The ship Majestic bore the first load of fresh fruit to England, Aug. 4, 1892."

The Yuba City Grange has its three graces, Pomona, Flora and Ceres, surrounded by fruit, embowered in flowers, loaded with grain.

From the gallery, one gets a good view of the general effect, and notes the ceiling decoration of tiny flags, the national interspersed with the bear flag.

A great mass of tropical plants, crowned by a thrifty banana tree, makes a fine showing. Such displays bring out strongly California's cosmopolite production. Half way across the pavilion hang two huge bearskins, and not far away is what no bear in his native surroundings ever saw, an electric car. The little track is in the shape of the figure 8, and is furnished with ties like a railroad. The little car is a model of the streetcar; it runs with some noise, emitting flashes as it speeds along the track. The wonderful ease with which it turns curves will be of great value if it can be brought into general use. The inventor is a Marysville young man, Wm. G. Murphy, Jr.

Very good exhibits were entered by Marysville firms, among the best being those of the *Appeal* and the *Democrat*, White, Cooley & Cutts, and Hampton Hardware Co.; and Hall of the book firm.

The notable things of the art department, besides a number of oil paintings and some good water colors, are a mirror painted in red thistles and a number of excellent pen and ink sketches.

Mention of the fine almonds, walnuts, huge pumpkins and melons, hops and hopvines, corn 18 feet high, nursery stock and individual exhibits of canned fruits and jellies, fails to include much that was worth seeing.

It is regretted that Mr. W. H. Murray's fine display of ramie was called for by another fair before the close.

The success of this fair of Sutter and Yuba counties seems to indicate that agricultural fairs are not to be left behind, but are to become, as they should be, indispensable aids in the advancement of the State. E.

The Situation of the Wine Industry.

EVERGREEN, SANTA CLARA CO., Sept. 4, 1892.

TO THE EDITOR:—Inclosed please find report of the committee appointed by a convention of Santa Clara valley grapegrowers, at their meeting of Aug. 11th. This report was submitted at the adjournment of this meeting to Aug. 28 h, ordered to be presented in writing at a further adjournment to Sept. 11th, when it will be definitely acted upon. In my opinion, it is about time that our people be given the unadulterated truth as to the condition of the condition of the grape industry. We are making what the American people refuse to drink, and must curtail our production or continue to lose money, until enough of us have been forced to quit the business. The newspapers are not sufficiently independent to open their columns to a free discussion of the subject, and if they refer to the industry, it is usually by a writer who has not mastered the situation and writes nonsense. I would like the RURAL PRESS to investigate matters, in a free and independent spirit, and inform its readers of the true status of the industry. In my opinion, the platform of the partial prohibition party is well worthy of consideration from our State. If whisky could be prohibited, and wine and beer substituted therefor, the cause of our industry would be much benefited, and that of true temperance as well. One closely associated with a whisky journal is hardly the proper party to answer, in behalf of our State, an inquiry of the founders of such a party. All vineyardists will be welcome to our meeting at Grand Army hall in San Jose, on Saturday, Sept. 11th, at 1 P. M. WILLIAM WEHNER.

THE REPORT.

Mr. President: In obedience to your wish I hereby submit, in writing, the report of the committee appointed "to investigate the present status of the wine industry and to propose ways and means for its improvement." Your committee has been diligently at work and begs leave to offer the following report on the situation: We find that the present deplorable condition of the wine industry is only in a measure due to a combination of San Francisco dealers, or rather to a lack of combination amongst these gentlemen. They could combine to keep the price of wine up to a certain and paying minimum figure, but they prefer to undersell each other and often only realize their own cost price and, all things considered, sometimes less than that. Your committee is of the opinion that the main and almost only reason of the present disastrous depression is "overproduction," and hereby offer facts and figures to substantiate this assertion. According to the compilation of the State Viticultural Commission there are now about 90,000 acres of wine-grape vineyards in our State. Under favorable conditions they will average three tons of grapes per acre, or 450 gallons of wine, making in all 40½ million gallons. About one million gallons of brandy are required for the trade, although a little more is made, which would take five million gallons of wine and leave us 35½ million. Some grapes are always dried, a small quantity of syrup is made annually and the must-condenser at Healdsburg of late years has turned several thousand tons of grapes into condensed must and shipped the same to London. However, if the fruit crop both in the East and in California is large, as this was the case in 1891, dried grapes are worth but little in the market. Suppose that 40,000 tons of grapes were used, otherwise than for wine and brandy, it would still leave us 30 million gallons of wine. Statistics show that we have never exported quite 13 million gallons from this State, to all countries inclusive of the U. S. It is generally assumed that we use in our State about five million gallons per annum, which would make the entire consumption 18 million gallons, thus leaving a surplus of 12 million gallons. Well-informed merchants do not think it probable that our markets can be materially extended in Europe, except at prices less than the cost of production, there being plenty of cheap wines in Italy, Spain and Greece which can be laid down in the northern markets at a low price. Freights and high cost of labor in our State make it impossible for us to compete with those countries. Our trade in Central America, the Hawaiian Islands and Japan and China is improving some, but these countries can take but limited quantities. Our main and almost only market is in the U. S. The American people, however, will not drink wine except to a limited extent. Our exportations from this State for the first seven months of 1892 are actually less than those for the same period of 1891. The large surplus mentioned above, your committee considers the real cause of the low prices that prevail. Our annual importations of wine from all countries do not exceed 5,000,000 gallons. If these importations would cease entirely, there would still be a large surplus. In time we may be able to partly replace them with our own product, but the finer and well-established brands of France, Germany and Spain will be extensively imported for many years to come. It is a well-established fact that the price of a product is low, if more is produced than the popular demand calls for. Under our tariff laws, it is possible for manufacturers and producers to amass great wealth in certain lines, and just as soon as the public realizes this there is a rush and boom, with the result that ere long more is produced than required, parties underbid each other, sell at cost and below, many go into bankruptcy, and finally a combination or trust is made, the production curtailed, prices put up and maintained as long as the combination lasts, and often much money is made by those interested. It has been the same with our industry, hence the demoralization. We have planted vineyards during a period of excitement without knowing what to do with the wine after it is made. Using the words of Senator Stanford, "Making wine for the million." The million will not drink wine, and is leaving us beautifully in the lurch, and the sooner we realize this, so much better for us. Although this year's crop is known to be very short, the price of wine has advanced but little, which is undoubtedly due to the large stock on hand in this State, New York, New Orleans and Chicago, but principally to the fear of a full crop the year following. There are now about 19,000,000 gallons in California. In order to reduce this surplus and to be prepared should the next year's crop be large, your committee advises that 25 per cent of this season's grapes be either dried or distilled, and the brandy held in bond for three years or exported. It suggests that a distillery be bought or built; that every grower who has not decided to dry his share deliver 25 per cent of his crop at this distillery to be made into brandy; that three trustees be elected by those interested; that after giving adequate bonds, the brandy be entrusted to them, with power to sell at the best obtainable price, provided it leaves the U. S., and cannot be reimported without paying duty, or to hold in bond for three years, as the individual owners may elect, the proposed distillery to be paid for pro rata to the acreage of the vineyards directly interested and cer ificates issued. Sufficient brandy would be sold for cash to pay for the plant. The committee further advises that experiments be made in drying grapes otherwise than by the heat of the sun, as the latter cannot be relied on in our climate. For a good quality of dried wine grapes from 3¼ to 3½ cents per pound can be realized this season, which is equal to from $16 to $17.50 per ton green, and for which cash can be had on delivery. If such a combination is entered into by our growers, those of other districts will join us, and we will wipe out the surplus, and the price of wine will respond at once and advance, and thereafter regulate itself. Our vineyards would be worth in the market as much as a prune orchard in full bearing, and the industry could be kept on a paying basis by reducing or increasing the dried grape or brandy output as the condition of the crop might warrant. The committee further advises that an association be formed with an office in San Jose, open all day to members and with a salaried secretary; that regular monthly meetings be held for the purpose of discussing matters of interest to the members, and that the secretary issue bulletins from time to time giving statistics, conditions of crop and wine market and other information to members only.

WM WEHNER,
Chairman of Committee.

Wide or Narrow Tires.

Our readers will be interested to see a statement on this mooted subject which the famous wagon-builder, Clem. Studebaker, writes for the *Breeders' Gazette:* There can be no doubt that the general adoption of wide tires would work less harm to poor roads than would narrow tires. Broad tires for wagons, of any width that would be practical, would not, in my opinion, make good roads. They would simply have less tendency to cut up poor roads than would the narrow tire. The harm to wagon roads commonly occurs when the surface is saturated with rain and the roadbed is soft and yielding. At such times loaded vehicles fitted with wheels with narrow tires cut out ruts in the roadway more or less deep, according to the length of the wet spell and the frequency of the passage of such vehicles. When, however, the roadbed is solid and care is taken to promptly fill up inequalities which may be created by reason of the wear and tear of the surface, in such event narrow tires are, to all intents and purposes, no disadvantage to the roadbed, while they are unquestionably of greater advantage to the vehicle. Narrow tires tend to lighter draft in drawing loads over smooth roads and over soft roads. Over surfaces that are sandy or merely yielding in their nature the wide-tire wagons give the best results. The wide-tire wagons are accordingly better for general field use. We have, by the aid of a dynamometer, made a series of exhaustive experiments with the wide and narrow-tire wagons, and the result of these experiments justifies the statement contained in the foregoing Concerning the disposition of manufacturers toward the construction of vehicles with wide tires, I may say that we are prepared to manufacture these wagons in accordance with the demands of the market. It is nevertheless true that the supply of timber for fellies for wide-tire wagons is less abundant than that which is suitable for narrow tires. On this account wide-tire wagons are more expensive than those which have the usual tire, and in case of a greatly increased demand for them, the timber supply of this nature already being somewhat scarce, the tendency will be to still higher prices for wide-tire wagons.

TRANSFERS OF RECORDED BERKSHIRES.—Jno. G. Springer, Secretary American Berkshire Association, Springfield, Ill., sends the following transfers of Recorded Berkshires: Redwood Stumpy 24438 and Model Duke III 27840, Andrew Smith, Redwood City, Cal., to J. E. Alsford, Redwood City, Cal.; Royal George 27870, Andrew Smith to J E Pleasants, Santa Ana, Cal.; Charmer's Duke 27,767, John H. Temple, Puento, Cal., to Sessions & Co., Los Angeles, Cal.; Goldsmith 27,853 and Cherry Blossom Sallie III 27,854, A. J. Lovejoy & Son, Roscoe, Ills., to Sessions & Co., Los Angeles, Cal.; Andes 27821, Callao 27 822, Cuzco 27 823, Pasco 27,824, Lima 27,825, Amazon 27,826, Arica 27 827, and Iquique 27,828, Alfred Seale, Mayfield, Cal., to E, B. Granadino, Lima, Peru, South America.

THE sugar factory at Alvarado will commence handling beets about the end of September. The growers are fearing an early and wet winter.

FRUIT MARKETING.

California Fruit in New York.

A Great and Growing Trade.

It is now something like five years since California fruit became a recognized article of merchandise in the New York market. Each year has shown a noteworthy improvement over its predecessor, both in the quantity and the quality of the fruit received. But the trade of California with the eastern markets is nevertheless as yet in its infancy.

There is no question, however, but that next season's record will show a very decided increase in volume over the present season, which is a most prosperous one for all concerned in it, from the grower to the retailer. Prices are remunerative, and there is an urgent demand as a result of the poor condition of the fruit crops nearer by. In other words, the fruit of the Pacific coast is having a more general introduction this year than ever before, and it is putting its best foot forward. The condition of the fruit all through the season has been excellent, though just at present, owing to the great scarcity of refrigerator cars, it is coming forward rather riper than is desirable. Fruit is now being received daily, and there are daily sales at auction on the Erie piers, Nos. 20 and 21 North River.

The sales take place at 9 o'clock in the morning. On Monday last, for instance, 17 carloads were sold, including which the total receipts of California fruit so far this season have been 363 cars, against 329 last season. The fruit comes in both refrigerator and ventilated cars. The minimum capacity of a refrigerator car is 24,000 pounds, although very frequently there are 28,000 pounds to a car. The ventilated cars have a minimum capacity of 20,000 pounds, and frequently run as high as 24,000 pounds. These cars coming as freight last year made the trip from San Francisco in an average of 13 days. This year they come through in about 9 days. With the increase in business, there has naturally been a corresponding increase in the number of receivers. There are now in New York city five receivers of California fruit. The largest is the Porter Bros. Co. at 211 and 213 Franklin street. In addition to receiving and selling goods on commission, this company purchases outright a large amount of fruit, and the plan has consequently been most successful, as far as they are concerned, on account of the high prices that have been obtained. The second largest receiver is Mr. E. L. Goodsell, and the other three receivers are Sgobel & Day, P. Ruhlman & Co. and Barnett Bros. Mr. Goodsell sells his own fruit at auction, but Brown & Seccomb, the well-known fruit auctioneers, sell for all the other receivers.

The fruit this year differs very little from that of last year. It comprises cherries, apricots, peaches, plums and pears. Grapes are just commencing, and a few nectarines and fresh figs have come this season and have been given such a kind reception that increased quantities will come next season.

Nearly all the fruit starts from California by the Southern Pacific over the Sierra Nevada mountains to Ogden. The Union Pacific then brings most of the cars to Omaha, although the Denver & Rio Grande gets some of this business. All the lines running from Omaha to Chicago have their proportion of the fruit, and, as already stated, the Erie has a monopoly of the traffic east of Chicago. The Atchison, Topeka & Santa Fe carries a small portion of the fruit to Chicago. They have provided a new style of refrigerator car for the purpose, called the "Hanrahan."

As an item of interest, it may be mentioned that five cars of fruit come forward every week, and are shipped to England on the White Star steamers that sail on Wednesday. Returns have been received from the first two shipments, and they have not been satisfactory. The shipments are an experiment, and will, we are informed, be continued, even though unprofitable, until the end of the season as a sort of fruit educational measure. What fruit, however, has arrived in England has been in splendid condition, and the opinion prevails here that our California friends have only to find out the kind of fruit and the time it is wanted to make the foreign-market idea a success. The California Bartlett pears, for instance, have to come into competition with French pears, which sell at a very low price in England. The peaches did better than any of the other fruits, as far as prices were concerned.

According to late advices from San Francisco, California fruit is making as much headway in other markets as at New York. On August 9th, for instance, five special trains of fruit went over the Sierra Nevada mountains aggregating 65 cars. They were loaded with peaches, plums, pears and a few grapes. For the five preceding days the number of carloads was respectively 40, 30, 36, 62 and 50, and the total shipments for the seven days were 318 carloads, containing 3816 tons, or 7,632,000 pounds, which is a daily average of 45½ cars, containing 562 tons, or 1,124,000 pounds of green fruit. After the mountains are climbed, and Truckee is reached, the trains are combined in such a way that 60 or 65 cars are put into three trains and forwarded to Ogden, where the Union Pacific takes them and hauls them in about the same way on to Omaha. A less number of cars is made into trains at Truckee in a proportionate way, so that the mountain section of the road has an activity in the movement of trains that can hardly be appreciated by those on other parts of the Central Pacific, and the train dispatchers for that division are a very busy set of men in keeping these extra trains on the move through the snowsheds and out of the way of the regular passenger and freight trains. These extra trains have a limited time of 48 hours to Ogden from Sacramento, and are, it is said, making the schedule-time with remarkable regularity. The number of cars sent East from California up to August 12th was 1583, or 150 cars in excess of the same period last year. To put the matter in still another way, it can be stated that 18,996 tons, or 37,992,000 pounds of fruit have been shipped so far this season, as against 17,196 tons, or 34,392,000 pounds for the same time in 1891, being an increase of 3,600,000 pounds.

Mr. Doe, the manager of the Porter Bros. Co., says the season's business showed a decided improvement. The company was receiving fully 50 per cent more than last season. The fruit had been arriving in good condition, and owing to the light crop of the domestic fruit, it had found a ready sale. Mr. Doe thought further that the demand would continue until the end of the season, and he was advising free shipments.

At the office of Brown & Seccomb, the New York fruit auctioneers, Mr. Brown said that the California fruit business had this year shown a decided improvement. The fruit had arrived in good condition, and had brought good prices. Practically all the fruit, Mr. Brown said, was sold at auction on the Erie piers, and it was receiving far more general distribution than during any of the previous years. The packing this season had shown considerable improvement, and that and the faster train service had much to do with the improved condition in which the fruit arrived.

Mr. E. L. Goodsell put the matter in this form: "The action of the railroad companies in putting on the new expedited train service has been the greatest possible boon to the California producers, as well as the buyers at this end, and fruit has been coming through to New York in from eight to nine days, with some exceptions, and in consequence has landed in splendid condition, and I believe the trade has generally made money.

"Prices on Bartlett pears have ranged about 15 cents per box less than in 1890, while on peaches, up to the present, the average has been slightly higher. In plums and prunes, prices have ruled generally lower, while of course it is too early to base any comparative estimate on the grape results. In cherries a better market existed this season at more profitable prices than it did in 1890, comparatively speaking; therefore the market of 1892 up to the present will be the cause of a very great development to the California green-fruit industry, and the very greatest increased acreage must exist in consequence. The outlook for the coming ten days is that less supplies will reach this market, and a better state of affairs ought to be expected all around."—N. Y. Commercial Bulletin.

Pushing the Trade in England.

The *Record-Union* of August 31 says that the seventh European special, consisting of five cars of selected California fruit, was sent out the night before by the California Fruit Transportation Company. Two cars were by A. T. Hatch, from Suisun; one by J. Z. Anderson and A. Block, from San Jose; one from Gregory Brothers Company, loaded at Placerville, and one from the Cooperative Fruit Company of Auburn. This shipment will cross the ocean on the steamer Teutonic.

The results of the last shipment, which was sold in Liverpool and London on last Friday, are very good, realizing as high as 17s 6d per box for pears. In an interview last evening with G. H. Appel, agent for the California Fruit Transportation Company, he said:

"I have cable advices to the effect that shipments from now on should realize good prices, and that if we will continue regular shippers up to December, they will revolutionize the trade over there, making a good demand for the coming season, and giving California fruits precedence over fruits from other countries.

"What is wanted there is large, fine-colored, handsome-appearing fruit. The brands of the shippers who have been forwarding regularly by these trains have become established, so that for the English trade next season they will require no introduction.

"I have here extracts from English papers, which will give you an idea of the favorable comments made on the introduction of California fruit into Great Britain. We trust that shippers will give us their hearty support in the continuance of regular shipments during the remainder of the season, as we now feel that it is on a paying basis, and it is our wish to give this benefit to the shippers, especially when the domestic markets are filled and the results are evidently so unsatisfactory."

Mr. Appel stated that among last night's shipments was a box of tuberoses, sent by Captain W. M. Siddons to his daughter Nellie, who is now in Paris. He said they would endeavor to handle the package to good advantage, so the contents might arrive in good shape.

"This experiment," said Mr. Appel, "may develop the fact that the transportation of flowers from California to Chicago and New York for the World's Fair, next season, would be a feasible and profitable undertaking."

A neat stroke was accomplished when fruit of various kinds was forwarded to the Queen. Many of the English papers have given space to the fact, which is worth tens of thousands of dollars as an advertisement. All of the papers speak of the excellence of the California fruit. Peaches, pears, plums, nectarines, and prunes were forwarded to the Queen.

The English agents have written to Mr. Hatch as follows: "There is no doubt that the fruit has attracted a considerable amount of attention, and we believe that once the buyers obtain confidence in its keeping quality, remunerative rates will be realized. Your pears were in better condition than others, and we forwarded most of them to London."

Another Market.

CLOVERDALE, Sept. 1, 1892.

TO THE EDITOR:—One fact should be known by the prunegrower. It will give him courage. The writer has persevered in planting, year after year, as the redwood bottom lands could be cleared of the debris of sawmill operations, until he is afraid to state how many acres are in prunes. But there are enough to cause his neighbors to wonder what he will do with the fruit. They say there will be no market by and by, everybody, everywhere, seems to be planting prunes. What will you do if they decline in price to half a cent, or $10 per ton for them green?

Well, let them decline if the markets so will it. Fruit may be cheap and dull of sale, but pork is as good as gold coin. Operators cannot corner pork.

L. W. Ridenhour, on Russian river, has pursued mixed farming for over 30 years. He is a good observer. His small prune orchard, at seven years, bore an average of 400 pounds per tree in 1891. He states that prunes, pound for pound, are as good for fattening hogs as corn. One acre is good for ten times as big a yield, and the pigs harvest the crop and keep the orchard free of insects.

I feel like a general who has provided for a safe retreat before going into battle. The prune market cannot be cornered in California. J. B. A.

THE VINEYARD.

Vineyards in Southern California.

Hon. J. De Barth Shorb, Viticultural Commissioner for the State at large and special committee on the Anaheim disease, has filed with the Viticultural Commissioners the following report on the condition of the vineyards of the southern part of the State:

The vineyards of the counties of Los Angeles, Orange, San Bernardino and San Diego may be generally said to be in better condition than they were when the special investigation into the Anaheim disease was stopped in the beginning of 1891.

Since that time there has been a steady decrease in the amount of disease among the vines. In some places it seems to have quite disappeared. The present condition of the vines in the different counties may be summed up as follows:

LOS ANGELES AND SAN BERNARDINO COUNTIES.

The vineyards in the San Gabriel district are in good condition on the whole. A few cases of Anaheim disease may be scattered about, but none have been noticed in which the disease had started after the foliage had been put out. All the cases seen were of old standing, *i. e.*, the vines had been attacked some time during the previous seasons. In the Lamanda Park and Sierra Madre districts there was a little more disease, and a few vines—not more than half a dozen—were seen in which the disease had asserted itself after the foliage had been put out this season. Nevertheless there was a marked improvement in the condition of the vines.

At Pomona and Spadra, where the vines had been properly cared for, there were a very few old cases of disease, but no new ones. In this section many of the vines had been taken up to make room for fruit trees. Already over a fourth of the acreage listed in the new directory published by the board has been uprooted, and more will follow.

In the San Fernando valley district, in which may be included Glendale and Tropico, some of the vineyards are in splendid condition. Others are not in such good condition. Some have been quite neglected; others only partially cared for, and in these, various diseases have done much mischief. The best vineyards are in the upper part of the valley. One of these, some 200 acres in extent, is in splendid condition. It does not show any sign of the Anaheim disease, and indeed has never been afflicted with that malady.

In the La Canada district many of the vines have been taken out, and many will follow in the fall. The vines which are left are in good condion. There are a few scattered cases of disease, all of old standing, but in some vineyards no disease was seen.

In most of the vineyards throughout the country, though not in all, there might be seen either small patches of vines or single plants affected by chlorosis, and there were also some sunburn. As a whole, the indications are for a good crop, and in places for a very good one. In the Ontario district the vineyards were all in excellent condition, having been well cared for. Not a single case of disease was seen in Ontario itself. A few miles from the township there is an old vineyard of Mission vines over 20 years of age. This has suffered in a few isolated patches of small area from Anaheim disease. There are still a few diseased vines, but they are all of old standing, and are confined to originally diseased areas. The rest of the vineyard is in excellent condition.

In the Cucamonga district many of the vineyards are in good condition, though in a few there was a considerable amount of disease, several vines having been attacked after the foliage had been put out this year, but even here there seemed a decrease in the amount of disease. In this district there was also a considerable amount of chlorosis, and in one vineyard many vines were affected with Spanish measles.

ORANGE COUNTY.

In the county of Orange, where the disease first originated and where practically every vine was destroyed, all the young vines recently planted are in a very flourishing condition, and it may be said with confidence that the disease has here run its decimating course. Although this is the case, it is very doubtful if the large acreage in vines which formerly beautified and enriched that district will ever be reestablished, as the demoralized condition of both the wine and the raisin markets, gives small hopes of satisfactory returns on the capital, time and labor necessary to be invested in building up those industries.

SAN DIEGO COUNTY.

In the county of San Diego, and especially in the Cajon valley, the vines are in a remarkably healthy condition, and will produce this year an average crop of grapes. All evidences of recent incursions of disease have disappeared, and in fact at no time in this very fruitful valley had it ever taken a very strong hold. It will be remembered that it

was in the valley of the Cajon where the governmental scientist, sent out from Washington to examine into this remarkable disease, saw evidences of it throughout all the vineyards, and announced to the people, as the result of his investigations, that within another year there would not be enough grapes grown in the valley to supply the home consumption of table grapes in San Diego city and county. I was assured by one gentleman in charge of the largest vineyards there, that this untruthful statement has cost the Cajon valley not less than $200,000, by frightening away intending investors. It is true that at the time this statement was made the disease had made inroads in some of the vineyards, and in some places a general languishing condition of the vines was observable; but this condition was probably brought about more from an inadequate supply of water for irrigation at the time, and from an alkali soil in some places, rather than from the effects of the Anaheim disease itself.

From want of time, no recent examination of the vineyards in Ventura, Santa Barbara or the San Joaquin valley counties has been made, but from statements of reliable parties residing in these counties, I am assured that a general improvement in the condition of the vines is everywhere observable. J. DE BARTH SHORB, Commissioner.

Vines in Sonoma District.

I. De Turk, Commissioner of the Sonoma district, submits the following as his annual report:

Since my last report, made in 1890, there has been little or no planting of new vineyards in this district. The prices that have been realized for wines have been so unsatisfactory that nobody is encouraged to plant, and in the meantime the phylloxera has been steadily advancing up the Los Guilicos and Bennett valleys toward Santa Rosa. What little planting has been done has been largely in the nature of setting out resistant stock in the vineyards already devastated by the phylloxera, and I have doubts that the area in vines in this district is as large as it was in 1890, when there was reported 24,450 acres of vines, of which 22,585 were in bearing. Another cause that has contributed to the loss of acreage has been the uprooting of vineyards by discouraged growers who have planted orchards and other crops instead.

Aside from the phylloxera the district has been remarkably free from insect pests. The "flea beetle" and the thrip have appeared, but have not done much damage.

The vintage of 1891 was very favorable, and if the quality and quantity of the wine produced are to be taken as indications of success, it was one of the most successful ever known in the district. The '91 wines, I believe, will turn out remarkably good, but unfortunately the prices are not what is wanted.

The vintage of '92 will be at least 33⅓ per cent short in Sonoma county. The spring frosts did much damage, particularly in the Los Guilicos valley and other adjoining sections. This disaster was followed by several weeks of unseasonable and unusual cold weather, which further aggravated the situation, and reduced the crop. This has made holders of '91 and older wines in the country very slow about disposing of their holdings, and there is little willingness to sell, all believing that the short crops must eventually make better prices.

Through the kindness of Mr. A. V. La Motte of Glen Ellen, Mr. Oulevy of Kohler & Frohling's cellar at Glen Ellen, and Mr. D. D. Davisson of Sonoma, as well as by personal observation, I am able to give some information as to the extent of planting with resistant vines in Sonoma valley, around Glen Ellen, and in the Los Guilicos valley. I should estimate the acreage in resistant stock as follows:

Grafted and in full bearing, 500 acres.
Grafted and beginning to bear, 500 acres.
Not yet grafted, 700 acres.

This is a good showing, but it will be improved upon largely when there is the least sign of a revival in the price of wine. Let some encouragement be given to the producers and there will be many who will set about planting resistant stock and bringing a vineyard into bearing, laborious and expensive as it is.

THE STOCK YARD.

Fraudulent Cattle Foods.

TO THE EDITOR:—The New Hampshire Experiment Station, in a recently issued bulletin, gives some facts about the composition of certain condimental cattle foods and condition powders, that have been palmed off on stockmen in large quantities, as the very essence of concentrated nutrition.

The bulletin referred to comments rather severely on the facts, as shown by analyses made by the station chemist. One of the foods analyzed was made in Pennsylvania and sold at $6 per 100 pounds. The analysis showed the food to be wheat-middlings, to which had been added some fenugreek and about two per cent of common salt.

Another is a "condition powder," manufactured in New York city and sold at the rate of 50 cents per three-pound package. "In appearance it resembled a mixture of cornmeal and cottonseed-meal, and it had a saline taste and strong odor of fenugreek."

A Vermont "food," with a strong saline taste and odor of fenugreek, sold at $8 per 100 pounds, and on analysis compared with cottonseed-meal as under:

	"Food."	Cottonseed-meal.
Water	9.26	8.2
Ash	18.09	7.2
Crude Protein	12.74	42.3
Crude Fiber	5.60	5.6
Nitrogen-free Extract	53.08	23.6
Fat	3.23	13.1

The bulletin pointedly concludes as follows: "In conclusion it is hoped that the people of this State will be cautious about paying exorbitant prices, like $8 per 100 pounds for so-called 'concentrated cattle-foods,' when cottonseed and gluten meals can be purchased for one-sixth that price, and sulphur, salts, etc., for a few cents per pound."

We give the above facts from an authenticated source, as a "word of caution" to our readers who are interested in the well-being and well-doing of their livestock.

From personal observation and long experience among farm animals of all kinds, we have no hesitation in expressing the opinion that fully nine-tenths of the money spent on artificial, "concentrated," and, sometimes, spiced "foods," would be worth five times more if paid out for pure and wholesome ground wheat, barley, peas or oats, which, when judiciously used, with the addition of a moderate quantity of vegetables when there is no green grass, is the best spice that can be given, besides the usual allowance of sound, sweet hay. If cattle and horses do not thrive on such food as the above, all of which can be produced on the farm, then there is most likely something wrong in the management. Let a little more of the personal supervision of the owner be added; let him see that the food is fed in proper quantities to each animal, with the variation in kind that is frequently necessary to make the animals do the best they can be made to do, whether the aim be for the growth of flesh in cattle and swine, bone and muscle in the horse, wool in sheep, or dairy products from the cow.

All these can be produced more economically by a judicious use of the products of the farm than by buying high-priced "foods," which are not only high-priced in name, but in fact.

It is sometimes necessary to use means by which an animal will be tempted to eat, when confined to the stall the greater part of the time, but we have never found the use of spiced food necessary, even when pushing an animal to make a rapid growth. If an animal will not grow well and quickly when fed with such food as is named above, then it is not of the sort one ought to keep to breed from, and as to feeding such for the butcher it is an unprofitable business, a waste of wholesome food.

"The survival of the fittest" well applies to the livestock industry in these times of low prices, when it behooves all stockmen to keep only that class of animals which will make the best returns for the food consumed.

BREEDER.

Northern California Sheep Ranges.

Commencing at Oroville and traveling through the country north about five miles along the foothills, the character of the country is broken land, with occasional glades of good land, even suitable for garden purposes. It is not used as such, however, as the large sheepraisers run their flocks over it indiscriminately. They had the best land patented long ago, and the rest is lava rock with bunches of grass in the interstices. In fine, this is what may be called a good sheep range. There is plenty of brush to browse on and shelter under during severe storms.

In former years the sheep were close herded, but of late they have been turned loose all winter, and it is a positive fact that the sheep do better and the ranges carry one-third more sheep. The coyotes not being so plentiful is a great point gained in allowing sheep to be loose-herded, thanks to the bounty of $5 per scalp; it ought to be a United States law and be $10 a scalp, then these vermin would all be exterminated, and sheep, turkeys and calves would have no enemy except the weather. I am sorry to say the sheepmen do not look after that at all. Every sheepowner in this part of the country should build a large shed on every section of land—that is, on every 640-acre tract. In the shed he should have 12-inch V shape troughs on stands a foot high, full of salt in large lumps; in that way there would be no waste by the sheep trampling it under their feet, as there is when small salt is fed on the ground. The sheds should be all boarded on the south and east sides to keep out the rain; cold in California does not hurt sheep. Some of the persons owning sheep in this part of the country could well afford to build sheds. They would save the cost of protection against the elements in two seasons in lambing alone, not to speak of all the weak yearlings they would protect until the grass came in large quantities in spring; then they would be as good as any sheep in two months.

Senator Stanford's large range is fenced by creeks; so is Joe Cone's, and the least such men ought to do would be to give their sheep shelter while they are poor in the early spring. If those men would show an example it would certainly be followed by others. The advantage would be in raising so much larger proportion of the lambs dropped and several other ways too numerous to mention.—Live Stock Gazette.

A Two-Ton Steer.

Wm. J. Fowler of Monroe county, N. Y., writes as follows to *American Cultivator:*

"A fat steer to be made to weigh 4000 pounds is to be one of the attractions at the Chicago World's Fair. The exhibit is to be made by Wm. M. Singerley, editor and publisher of the Philadelphia *Record*, who is an amateur farmer as well. It is claimed that in size, weight and appearance this steer will beat the record. If it reaches or exceeds the 4000 pounds weight, it will; otherwise not. Some 12 or 13 years ago Wm. and Frederick Fellows, farmers near Scottsville, on the Genesee flats in this county, bred and fed a steer which they tried hard to bring up to the two-ton weight. Had they succeeded, they could have sold the animal for $1 a pound, or $4000. They tried hard to bring it up to the required weight, but could not get anything higher than 3950 or 3975. The animal was, when I saw it, about four years old, a bright red in color, and of course a mountain of flesh and fat. It had been carefully bred from birth, the effort being to build as large a frame and put as much flesh on it as ever was borne by steer before, and more if possible. As Mr. Singerley's steer does not yet weigh 4000 pounds, it is not certain whether the old record can be beaten, though it may."

We have frequently heard people talk of steers that weighed two tons, but have always contended that there are no authentic records of a steer being made to weigh 4000 pounds.

The above is the nearest approach to that weight we ever heard of from any authentic source. We wish Mr. Singerley success in his efforts to break the "record."

THE DAIRY.

The Dairy and Fertility.

Reports from the trade in eastern cities show that the receipts of butter are very much less this season than the average in years previous. It is evident also that the production is very much less from some cause or other. No doubt the excessive wet weather of the spring and early summer had a good deal to do with the matter of production. Another cause is the Babcock test and the knowledge that has finally percolated into the comprehension of many farmers that their cows were utterly unfit for dairy work. Mr. A. Olson, of Burnside, Iowa, writes us under date of August 3, and says: "Our creameries all have separators, from one up to six. None of them are getting more than half the milk this season that they got last. The cows have gone to Chicago for beef."

This is a hopeful sign, and if this weeding-out process continues, we may hope in a few years to see the dairy business on a foundation where the farmer, who will put intelligence in it, can reap better profits from it.

The above is from *Hoard's Dairyman*, and conveys to us the idea that we may not expect to receive as much eastern butter this autumn as we have done in some seasons past, consequently, California dairymen may expect good prices for a prime article which can only be produced from well-fed cows from this time on till next grass season.

Hay is both abundant and cheap, and is worth more to feed to good cows than to send to market. Other feed is comparatively cheap, especially barley, which is one of the best of feeds for the production of a good quality of butter, when ground into meal and mixed with a little cut hay, besides which the cows should have all the hay they will eat, with the addition of other foods by way of variety, as the feeder may see fit to use.

Those who have not been in the habit of feeding their cows for the production of butter will be surprised to find out what their cows can produce if they will give good feeding a fair and honest trial. But, to be fair to the cows it must be begun in good time, that is, before the cows begin to fall off in their milk, which, when once they do and are allowed to continue to shrink for any length of time, it is next to impossible to recover the original flow, whereas if they are held up to it by good feeding and not allowed to begin to give less milk for the want of milk-producing food, there will only be the natural shrinkage due to the length of time they have been in milk since calving.

There are several indirect advantages to be obtained, as the effects of good feeding, such as the better condition of the stock and the continually improving condition of the land upon which it is kept, for, while poorly-kept, half-starved stock of any kind will impoverish land just as surely as continuous grain-growing, we have yet to hear of the man whose farm has become poorer by keeping a lot of well-fed dairy cows upon it, whatever the disposition of the milk.

There is very little exhaustion of the soil in butter-making, where the skim milk is fed to calves or pigs, and the manure properly taken care of. Cheese-making is more exhaustive than butter-making, and selling off all the milk, still more so. In the latter business, however, there is so much more purchased food used, or at any rate grain-feeding, that the impoverishment that would naturally be due to carrying off all the milk, is more than counterbalanced by the extra feed used during the year.

There are few, if any, foods composed of any kind of grain, peas or beans, or the offal from the same, but will return half to three-fourths their first cost in manurial value after they have given good returns in either dairy produce or growth of stock, generally to the full value of the food consumed.

Where additional fertility is needed, and there are few places where it is not, by far the cheapest method of obtaining it is through a judicious and economical system of feeding livestock.

The market price of nitrogen, potash and phosphoric acid, the most expensive ingredients contained in the best artificial manures, and the most efficacious aids to plant-growth, is in many cases no more per pound in stock-feed than in commercial fertilizers, especially in the more nitrogenous foods, such as oilcake and bran.

In some parts of the country these can be bought for less than their real value as fertilizers, but it is not so in California. However, at present prices, it is better for stockmen to buy the above named elements, in the form of food, for their stock than to pay the price of them as sold in commercial fertilizers.

Variation in Quality of Milk.

The English *Agricultural Gazette* publishes a report of the milking trials at the Essex Agricultural Society's Harlow Show. Cows in any class giving milk containing less than 12 per cent solids are disqualified.

In class 86, cows under four years old, is a striking example of the uncertainty of a test of one milking only, as seems to have been the case at this show. We give below a full report on the class, which needs no further comment. It is as follows:

No.	Weight of Milk, lbs. (one milking only).	Analysis. Total Solids.	Fat.
619	15½	13.27	4.23
617	16½	10.85	1.85

The latter cow was disqualified, owing to the abnormally poor quality of the milk yielded by her at the trial milking. It was observed, at the time of milking, that the cow was restless and nervous, and the attendant who milked her in the presence of one of us observed that she "held up" some of her milk. On the afternoon of the second day, being curious to investigate further a case in which milk of such abnor-

mal quality was yielded by a cow in good health and condition, we had her milked out again. This time the milk was normal and of good quality, showing:

Total solids	12.75
Fat	3.64

The milk obtained at the trial milking was like partially skimmed milk, and it is to be presumed that the strange deficiency of fat was due to the "holding up" of the richer part of the milk. It is well known that the "strippings" are richer in fat than the main bulk of the milk, but we were scarcely prepared to find so great a proportion of the fat withheld as was the case here. The first prize, which would otherwise have gone to this cow, was awarded to No. 619, Mr. J. S. Arnold (Tulip).—Bernard Dyer, D.Sc., Edward Rosling.

DAIRY TEST AT THE COLUMBIAN EXPOSITION.—At the recent conference of representatives of breeders' associations which expect to participate in the dairy test at the Columbian Exposition the following scale of points for judging butter was agreed upon: Flavor, 60; grain, 30; color, 10. Whether or not butter color should be used was left to the test committee to decide. Neither this nor the disposition of the butter-color question was satisfactory to the Holstein-Friesian people. After further consideration, Chief Buchanan announces this new scale, which represents his final decision: Flavor, 55; grain, 25; solidity, 10; color, 10. Furthermore, he has decided that the use of butter color shall be optional with the representatives of each breed on the test committee. The scale by which cheese will be judged is as follows: Flavor, 55; texture, 25; keeping quality, 15; color, 5. The same condition as to coloring applies. The Holstein-Friesian people have signified their acceptance of these conditions and have formally pledged 25 cows for the test.—Breeders' Gazette.

THE APIARY.

Berries, Bees and Bloom.

GRIZZLY FLATS, El Dorado Co., Aug. 12, 1892.

TO THE EDITOR:—It has been my good fortune to spend the week with the well-known apiarist, S. L. Watkins, of Watkin's Glen, near Grizzly Flats, who is also the introducer of the California honey-strawberry. As a grower of berries and a beekeeper, my visit has been one of inspection.

The varieties of Alpine strawberries found here are certainly of great merit and most preeminent among them is the California honey-strawberry. This berry is now in full bloom and bearing, and gives promise of continuing until the snow flies. The berry is peculiar in shape and color, tapering from the center to both ends, with a scarlet body and white tips, making a brimming saucer of these berries as beautiful as they are delicious. To the berrygrower their chief attraction, however, is their immense and all-the-season yield. The berry bids fair to be a valuable acquisition and to find a friend in every berrygrower. If this berry can be crossed upon the domestic varieties so as to fasten its immense yield and ever-bearing characteristics upon the varieties so crossed, a great step forward in the culture of the strawberry will have been made.

Mr. Watkins has in cultivation the leading domestic strawberries and will cross, in various ways, the best of the Alpine or wild strawberries, and in time the lover of this, the queen of berries, will be given the benefit of his experiments.

While the berries are of great interest, their fertilizing companions, the bees, are equally so. Fortunately, Mr. Watkins' bees are very gentle in their disposition and allow him to remove combs from upper and lower parts of the hive, extract the honey in the open air and replace and rearrange the combs without gloves or veil. While the honey-flow has almost, if not entirely, ceased in other parts of the State, here the bees are seemingly just settling down to work, with the best of the season still before them.

MOUNTAIN BEE PASTURES.

The extent and variety of bee-pasture or bloom in this section seems almost incredible. On a small piece of bottom and side hill land that was cleared and burned over last fall, there have sprung up and are now in bloom, on less than three acres of ground, the following honey plants: Cardinal flower, lupines, larkspurs, columbine, potentilla, hulsia, meliotus, collinsia, wild buckwheat, golden rod, hemezonias, snow drop, pennyroyal, Mexican clover, thistle clover, several varieties of thistles, and wild asters, soap root, wild turnip, parsley, fennel, sorrel, chickweed, poppy, alfilarilla, poison oak, burr clover, oxalis, yellow meliot, folocio, several species of compositæ, milk weed, cammomiles, wild sunflower, dandelions, gilias, wild alfalfa, star flower, camphor weed, nettle, star grass, lilies, peppermint, horsemint, catnip, verbena, philadelphus, mountain ivy, rubus, wild rose, violets, tar weed, dwarf cherry, point grass, nicotania, paradise plant, hybrid currant, Indian pink, wild sweet pea, bitter cherry, morning glory, Indian cress, ball golden rod, smart weed, borage, wild gooseberry and currant, and 20 additional varieties that I cannot name.

So varied and great is the wild flora of this section that Mr. Watkins has been commissioned and now has in preparation for the World's Fair an extensive collection of the wild flowers of the State; a collection that is surprising both in its extent and the limited area required for its production. With all this wild bloom, there is no secret in the large yield of honey secured in this section, but the bees are in no way dependent upon the bloom, for the trees and bushes are attacked by aphides, that cause the trees to yield a flow of honeydew, that in the early morning drips from them like dew. This honeydew, while it is found at this elevation of 4000 feet, is still more common and the yield far greater at an elevation of 5000 feet. While the same flowering trees and bushes are to be found both here and there, the yield of honeydew is far greater in the higher altitude.

Among the flowering varieties of trees and shrubs are the madrona, flowering dogwood, maples, California lilac, chaparral, buckeye, alder, Oregon grape, laurel, coffee berry, willow, wild raspberry, wild cherry, wild plum, and manzanita, while the honeydew glistens underneath the smallest plant to the manzanita, firs, sugar pines, spruce, yellow pine, black oak, live oak, cottonwood, and the greatest of all yielders of honeydew, the incense cedar. So great is the quantity of the honeydew, that on the manzanita, where the leaves are in proper position to catch and hold the falling nectar, the sugar resulting from the evaporated honey dew is often thicker than the leaf itself.

Throughout the eastern and western States their honeydew is feared by all beekeepers, as the bees die when compelled to winter on it and the honey is not marketable. In California the honey from this source is delicious and very dense. While the sheep annually destroy all of the flora on the greater part of our mountains, the honeydew is constantly secreted, and at this altitude a quantity annually goes to waste that is a thousand-fold greater than the entire honey output of the coast at this time. When the California beekeeper follows in the wake of the Swiss and moves his bees from valley to mountain-top, as the flora of the season ascends; this elevation throughout the State, and the still higher altitudes, will become the apiarist's paradise.

E. H. SCHAEFFLE.

Bee-Keeping Near San Francisco Bay.

This is the first year I have done anything among the bees for five or six years. Ours is not considered a good location for bees—it is too near the coast, being three miles from San Francisco bay and about 12 or 13 miles from the Pacific ocean.

The finest part of our crop was partly extracted when we received word that our brother Andrew was sick. He was, for a number of years, in the employ of the Government in the Pension Department at Washington, D. C. After three weeks sickness, he died on June 2. He was a young man of much promise and would in all probability have made his mark in the world. His sickness and death was the cause of our doing nothing among the bees all through June and July. The fruit season was then over, and my two remaining brothers, who are the youngest members of the family, and yet schoolboys, were given charge of a gang of boys who were hired to harvest the fruit.

These brothers I speak of are interested in the bees with me, and as I had newspaper work to attend to in the neighboring town, only about one-half the hives were extracted from since June 1. We did not work for comb honey, though a couple of colonies gave us some very nice honey in the sections. In all, we obtained nearly a ton of extracted sweets, and there must be yet 500 pounds to throw out of the combs.

In looking through the hives recently to introduce queens, etc., I found that robber bees were exceedingly numerous. In fact, it was bad to open a hive, for the robber bees soon swarmed around.—W. A. Pryal, of North Temescal, in American Bee Journal.

THE FIELD.

Napa Valley Notes.

NAPA, September 1, 1892.

TO THE EDITOR:—Summer, cool, very agreeable, has passed and we enter upon the fall months that promise to be as the summer just past, one of the pleasantest seasons of the year. Each has its charms. We have had so little hot weather these past months it seems as if we had had no summer.

The result of the prevailing cool weather is noted more, probably, in the fruit output than in any other department of farm industry. Grapes are at least three or four weeks behind time in ripening and the season will be far advanced when the vintage shall have closed. The yield of grapes will be light. Prices have been fixed at from $8 to $15 per ton for the wine varieties.

The peach crop in this country was below the average as regards quantity, and also as to flavor. There was too little hot weather to develop the highest flavor of the fruit. As regards looks, they were generally of good size and appearance. While the yield of other late summer and the fall fruits was not as great as last year, prices have been far more satisfactory and orchardists are reaping a well-merited financial harvest. When prunes bring $50 per ton or more and other fruits sell correspondingly well, it is no wonder the face of the fruitgrower is wreathed in smiles. Several carloads of assorted fruit are sent from the valley each week to localities far away and near at hand. Some go to Chicago, Indianapolis, St. Louis and other eastern cities, where the fruit sells well.

Although the fruit industry has made great strides in this county during the last five years, it is as yet in its infancy. There is much land within ten miles of Napa that is adapted to fruit culture, and during the next decade a large acreage will be planted to varieties that florish here.

As for grapes, the acreage in the county is annually decreasing, owing principally to the ravages of the phylloxera. A considerable amount of phylloxera-proof vines has been planted and they have proven a success, but the raising of other fruits will overshadow this branch of horticulture in time to come. Yet there will ever be a very large sum of money invested here in viticulture.

Wheat, oats and barley have yielded well this season with us, the different grains weighing heavier than is generally the case. Probably we never had such a good yield of oats, white and black, as this season, owing probably to the cool weather of the summer months. The amount of hay cut was very large and much remains to be baled. Prices are not very satisfactory to the producer; they suit the consumer well enough.

The sixth annual fair of the Napa Agricultural Society has just closed. There was a large attendance at the park, where daily attractive programs drew large crowds. The managers seem to be well pleased with the financial results and the association is on a better footing than ever before. There was some fine racing and many excellent horses were on exhibition. Our horses are improving year by year as more attention is paid to breeding. Yet there is room for improvement, especially for horses of all work. The display of cattle was nothing to boast of. There were some good sheep and swine, also poultry.

If these fairs in other counties of the State, as well as ours, did not give so much prominence to horse racing, and encourage thereby features that are not very desirable, farmers in general would take greater interest in them. But this feature will probably always be a prominent one.

Our farmers seem to take little interest in the People's Party movement and not much progress has been made by said party. As a general thing our farmers still cling to one or the other of the leading political parties. There is no doubt but that should the farmers unite in a political movement they could accomplish much. But it is different here from what it is in some other counties and some other States. In fact it is difficult to get our farmers to unite on any one project. Years ago, when the Grange movement was inaugurated in this State, a Grange was formed in Napa, but did not remain long in existence and efforts to reorganize proved a failure. Still it remains true that in union is strength and farmers would as much profit by combining as other classes. May be the future holds large developments in this direction.

Mr. W. H. Murray, State Superintendent of Ramie Culture, was in Napa during the late fair, pushing the matter of cultivating ramie in this county. Evidently in time this will be a large industry in our State and a profitable one for the farmer and the manufacturer. Much of our valley land is well suited for this purpose and farmers may be induced to take hold of the matter. R.

Steam on the Highway.

Peter Chalmers, a farmer of Farmington, is a genius in his line. When anything new comes out he studies to see whether it cannot be adapted to use on his farm.

For one thing, he has applied helmet oil-cups to greasing wagon-wheels. He has a score of grain-wagons, all of them supplied with these cups, and all of the wheels can be greased by means of them in ten or fifteen minutes—a job which would require an hour or more without them.

All the plowing done on Chalmers' big ranch is done with a traction engine, and during the last plowing season he ran the engine day and night, having three shifts of men. A locomotive headlight was employed to illuminate the path ahead, and another was used to throw light on the plows.

Now the farmer is hauling wheat to town with his engine. He brought a load in yesterday and stored it at the Stockton warehouse. There were nine wagons in the train, and each carried sixty-eight sacks of grain. Each sack weighs on an average 137 pounds, so each wagon-load was 9,316 pounds, and the aggregate of all the wagon-loads 83,844, or nearly forty-two tons.

The farmer has 30,000 sacks of wheat to haul, some of it belonging to neighbors.

"Is it much cheaper to bring the wheat in this way than it would be to ship by rail?" asked a *Mail* reporter of Mr. Chalmers.

"Well," was the reply, "I can't say positively that it is any cheaper at all, but I think it is. You see, this is only my third trip, and I haven't been able to cast up accounts yet. The wheat I'm bringing now comes from near Farmington, which is seventeen miles from Stockton, and it would cost $1 10 a ton to get it here by rail. Some of the wheat I'm going to haul is farther away, and to transport it on the railroad would cost $1 50 a ton. I don't think it will cost me a dollar a ton on the longest haul."

"Where does the saving come in?"

"Well, one has to load his wheat anyhow, and if ships it by cars he's got to unload and then load it on the cars. That requires men and time. This way all we've got to do is to load it in the field—the warehouse men do the rest. It requires only three men to take care of our train—an engineer, a fireman, and a man to look out for the wagons and see that they don't get 'hot boxes.' The only expense of hauling, therefore, is the wages of the three men and the cost of the coal used."

"But," said the reporter, "there's the interest on the money in the engine, which cost——"

"Four thousand five hundred."

"——And then there's repairs and the steady wear of the machine; and you've got to have a lot of money invested in wagons—you would only need a couple of wagons to haul to the railroad, but this way you need a dozen."

"Oh, I need the wagons and the engine on the farm, anyhow," was the reply.

In further conversation Mr. Chalmers said it would not be feasible to haul grain as he is doing except on level and good roads. The only trouble he experienced was in crossing small bridges, which he had to brace up on the first trip. The tender carries water sufficient for only twelve hours' consumption, but water is pumped into it from watering-troughs along the road.

It might seem foolish to say that the wagons follow one another around corners in the same path, since as a matter of course they would do so, but people often ask the farmer what sort of gearing he puts on his wagons to make them follow the lead.

The engine can haul the train at the rate of four miles and a half an hour, but to prevent jolting the speed is regulated to about three miles an hour.—*Stockton Mail.*

The Home Circle.

After the Cows.

The pasture reached the bleak uplands where the sugar maples stood
Firmly-rooted amid the rocks at the edge of the great pine wood;
The brook from the spring in the forest leaped downward in clouds of spray,
And the tall ferns drooped and nodded their heads above the boulders gray.

The hush of the summer evening fell, restful and cool and damp;
The firefly in the buttercup meadows lighted his ghostly lamp;
And high the flare of the sunset climbed up the dome of the blue;
As three little children went after the cows, barefooted through the dew.

The whippoorwill sang in the alders that fringed the bank of the stream;
And, like the mystical mu ic one hears in a beautiful dream,
The tingle of cowbells blended with the rippling waters below,
And the full red moon in the shadowy east on the horizon hung low.

The air was sweet with the clover bloom from the banqueting grounds of the bees,
And the woodsy scent of the mosses that hid in the shade of the trees;
The cow-path wound through the hemlocks and round the high ledges curled,
Where, gazing out through the distance, we saw to the ends of the world?

We called the cows through the gloaming—Ruby and Bessie and Floss,
Cherry and Molly and Dimple and Bounce—"Co', boss! co', boss! co', boss!
Knee-deep in the gurgling river they crowded and pushed as they drank;
They reared and rubbed each other as they climbed the slippery bank;
They plunged their heads in the clematis as it hung in its tangled net,
And tossed on their horns the eel grass so snaky and green and wet.

Three little children followed them close, all fearless and happy and free,
Holding the tanned brown hands of each other—three little children, three,
Through the soft, cool damp of the shadows and under the light of the stars,
Driving the cows with their tinkling bells home to the barnyard bars. —*Wide Awake.*

Lorena's Manuscripts.

Written for the Rural Press by Lilian H. Shuey.

I.

"Lorena, dear!"

An old man, sitting in a rocking-chair on a vine-trellised porch, called, in a thin, trembling voice, to a young woman, who sat just inside the door of the cottage, with her lap full of dark dress goods.

Lorena dropped her work and appeared at the door.

"Lorena, I want to talk to you."

The girl stepped back a moment and brought out a bit of white crochet-work in one hand and a chair in the other.

She seated herself by the old man and began to ply her needle.

"Well, father?"

"Ain't your dress most done, Lorena?"

"Nearly."

"I wish you'd ever get some time to write, Lorena."

"O father!" said the girl in a reproachful tone.

"Your mother used to write, Lorena, and she earned money, too. Did you ever find those copies of the *Young Ladies' Companion* I had put away? Your mother's pieces was in them, and I had it marked on them how much she earned."

"I looked everywhere for them, father." The girl had not looked up from her work.

"I wish you was as smart as your mother," continued the father fretfully." I think if you tried you could do just as well as she did. I'd like to see you try, Lorena, just to remind me of your mother. I'm getting old now, and I always wanted you to be a writer, like your mother was."

"But I have so much else to do, father."

"Yes, child, but there's some things you could slight, like she done."

The girl rolled up her work.

"Didn't you hear Rover bark, father?" she said. "I think the cow has come up."

Lorena went through the house, and came out on the kitchen porch with a wide hat over her round, sweet-looking face, and she carried the milkpail in her hand.

She went down a narrow walk hedged each side by currant bushes, and passed through a little gate into the corner of a yellow stubble field. She opened another gate into a small barnyard, and the cow, with Rover at her heels, preceded the girl into the barnyard.

Lorena brought a little bran in a pail and milked while the cow was eating, then she threw a little wheat to the chickens, and her outside evening's work was done.

She carried her milk to the house, and began on her preparations for the supper.

Lorena Newton was "chore-boy," nurse, housekeeper and sole companion to her aged and somewhat childish father.

Once there had been one hundred acres of land owned by the occupants of the little cottage. Lorena had seen a comfortable girlhood, and was at college when her mother died. After this, everything went wrong. Things were not managed as they had been. A dry year just before the death of the mother had increased the mortgage on the farm. Lorena returned to college after the funeral, but she soon found out that her father was borrowing money to keep her there, and that he was suffering for the care she ought to be giving him at home.

So she came home, glad to see some of the land sold to clear the home spot and a small field around it of debt. Lorena took charge of everything, and with economy and industry succeeded in making a living for the two. But she had to call the doctor sometimes to see her father, and when there were extra comforts to buy for him, she found it very close work to balance her accounts.

This was not the first time her father had talked to her about writing. His early fatherly ambition for her had degenerated with his mental feebleness into a mania which fretted him and annoyed her. She knew what it was to enter the field of amateur authorship. She had seen something of it at college, and although she had received much praise as a swift and adaptable writer, yet her ambition had never been aroused.

Another dream had filled her girlish days, and gone with her to her painstaking life at college.

Grant Maye, the son of a neighboring farmer, had been a schoolmate at the Maysville school. At sixteen they were timid, unconfessed boy and girl lovers, but at nineteen they had separated to attend different institutions; and when Grant Maye returned from college a graduate, three years after her forced return, everything was changed.

By the death of his father, he had come into the possession of a great deal of land. Maysville society received him with rejoicing, while Lorena, on account of her poverty and her daily round of work and care, had dropped her connections with her old associates.

Lorena had become accustomed to seeing him drive by with his handsome team without looking her way. The old dream was banished from her mind; but it had been a slow process, and it had left her sobered and reserved.

More and more her father was needing her care and attention, and she made no attempt to seek the society of young people. The isolation of her life was now leading her to think that possibly her father's idea was a good one. It would be amusement and company for both of them. And so, while her father read his paper and napped beneath the clambering roses on the porch, she set about preparing her first story in the pauses of her work.

II.

Joel Newton went three times a week to the postoffice at Maysville. It was about all he was able to do, and he considered this a really valuable service. He loved his papers, his weeklies and semiweeklies, better than anything he possessed, and it was his chief delight to go and get them. Regularly Lorena brought out the gentle mare, harnessed her into the comfortable old phaeton, and helped the old man in, thankful that there was still something that he could do and liked to do.

"Great was his delight when Lorena prepared her first manuscript and gave it to him to mail.

"You're bound to succeed, daughter," he said, "bound to succeed. Our family always had some literary folks in it, and I've been thinking of this for a long time, child."

Lorena nodded and smiled from the gate as he drove away.

"Now look out for the train, father," she called.

"Poor, dear, old father," she murmured, bending down a tall hollyhock over her slender form; "anything to make him happy, and I have seen worse stories than mine."

III.

"Father, dear father, don't worry about it. I don't care at all. Why, that's nothing; and you can't expect me to do as well as mother did at first."

The balmy fall of the California year had passed into early winter, and Joel Newton lay on the lounge, that his daughter had drawn up in front of the sitting-room stove.

"But you can, child," he answered insistently. There's something wrong about it. She never had her manuscripts returned. It's a shame. I read it coming from the office, and it's as good a story as your mother ever wrote. Dear, dear, it's too bad, and your first trial, too."

"Never mind, father; I'll try again."

Lorena passed her hand gently over the white hair on his throbbing head, and went out to serve the supper she had kept waiting while her father had walked the mare home as he read her manuscript in the chilling wind. He had come home with cold hands and hot head, in a fever of disappointment and indignation.

Her own disappointment was obliterated by her grief to see her father in this state of mind. When she had thought to please him by writing stories, she had not taken this probable trial into consideration.

Tears of pity and regret crowded into her eyes, as she drew the tea and served the dishes as neatly and daintily as she could. But she brushed them away bravely, and brought the old man out into the warm, cosy, little kitchen, talking cheerfully and trying to laugh away his distress.

Lorena did try again, as she was not one to turn quickly from a purpose, and her father clung as persistently to his ambition for her as he clung to his remnant of dependent life.

But the faithful daughter found, to her sorrow, that the same scene was repeated again and again. A mild and open winter allowed her father to go to the postoffice as often as usual, and although she sometimes went with him, yet the care of the mail was his especial and jealously guarded privilege.

She called upon the doctor one day, and tried to explain to him that her father seemed unable to bear little disappointments, and that slight annoyances fretted him greatly.

"Then," said the doctor to her gently, "you must not let these little things happen. Yes, by all means let him ride about all he can, but do not cross him if you can help it."

IV.

In her extremity Lorena conceived a plan by which she might gratify her father's unreasonable ambition, though it would be a sure blow to her own. In a short time she gave him another bulky letter to mail.

"It will be a go this time, Lorena," he said, as he climbed, with her aid, into the low vehicle. "Somehow, I feel it in my old bones."

She led gentle Mollie into the lane and watched him drive slowly away.

"Yes, poor father, we will succeed this time," she murmured, "but at such a price! No matter; nothing makes any difference to me any more, but you. I promised mother I would care for you and I will."

She heard the clatter of hoofs behind. It was Grant Maye, driving his high-stepping blacks. She crept into the house with a drooping face and a pain at her heart that her bravery for a moment did not subdue.

V.

The following spring, the editor of the *Western Fireside and Florist* was granted a few weeks' vacation. Before leaving the office he said to his assistant: "There is a woman who is sending manuscripts to this office from the Maysville postoffice. She invariably encloses some paper currency money, with the request that the manuscript be burned and the money returned to her. I have complied with this crazy request for the reason that the young lady was a dear friend of my roommate at college. I always thought he would marry her. Please attend to it while I am gone, and save the manuscripts and letters, as I may wish to enlighten my old friend."

Percy Graves, the editor, bought a ticket to Maysville, and went to the home of his old friend, Grant Maye, a large, roomy, country mansion, set in the center of a section-tract of grain fields.

Here he was heartily welcomed by the wealthy and cultivated young farmer and introduced to the stately mother and dark-eyed sister.

The young men sat on the cool, west porch at sunset, talking over the years since they had met.

"By the way, Grant," said Percy Graves, "what became of that pretty girl whose photo used to be on your desk in our room at school? I don't believe in long engagements; why don't you marry her?" He said this with a sly smile behind his hand.

Grant Maye dropped his forehead on his finger-tips and hid his face for some moments. Then he pointed over the waving sea of grain to a cottage-roof in the distance.

"She's living right over there now. She's become a literary woman. I haven't seen anything of her since she left college, after her mother died. Her mother was quite a writer, I believe, and I suppose the girl preferred to follow in her steps. I meet her father in the postoffice, occasionally, and the little, old man never fails to tell me that his daughter is getting to be quite a writer nowadays. Bah! I suppose you meet lots of such in your business."

"Yes," said Graves, "and I am not recommending them for wives just now." He preferred to say no more. He was glad that it was not necessary for him to add his testimony to save his friend from marrying a deceitful woman. But it occurred to him that he would like to make a little study of a woman as silly as Miss Newton appeared to be, and he resolved to find some way of doing it.

VI.

Joel Newton laid his book on a stand by his easy-chair on the porch. He had been disturbed by the continued thump of a flat-iron on the kitchen table.

"Lorena!"

Lorena placed her iron on the table and came out.

"'Pears to me, child, you don't do nothing but wash and iron, lately. When are you going to get at that story about poppies we were talking about? Sit down, Lorena, and rest."

Lorena sat down on the doorstep and reposed her pink cheek on her tired hand.

"Never mind; it's all done, father," she said. "I won't work any more to-day."

Her quick ears caught the faint click of the side gate and she rose quickly and went through the house, closing all the doors after her.

A kindly looking laboring man stood at the back door.

"The clothes are all ready, Mike," she said; "wait a moment."

She went in, and soon returned with a large bundle of neatly packed linen.

The man took the clothes and placed two silver dollars in her hand.

"You are awful kind, Mike," she said. "Are you sure no one knows I do this washing?

"Sure, Miss, they don't. The folks think the Chinaman does it. When you came out to the road and asked me to leave the clothes here instead of taking them to town, I made up my mind I wouldn't go back on you. I'll keep mum, and whenever I gits the clothes to take to town you gits them to do. You're a good girl, Miss, to be willing to help on that way."

Lorena looked after him, gratefully, as he turned away, but with weary heart and hand. She had taken desperate means to get money to send with her manuscripts. She was washing for the Maye's ranch, with the connivance of a good-natured hired man.

VII.

Joel Newton came home the next day in buoyant spirits.

"Lorena," he cried, "I've met about the nicest young man I ever see. He rode out with me in the buggy. He's stopping at the Maye's. He lives in the city, he says, and I guess he must be a literary man, the way he talks. I told him my daughter was writing for the *Fireside and Florist*, and he said he would like to come and see you. Now, what do you think of that, Lorena?"

"O, father, how could you? I don't want to see young men, and you know it," protested the suffering girl, as she led the horse away to the barn.

That night, at sunset, Percy Graves came through the green fields with his gun in his hand and came boldly on to the porch of the cottage to talk to the delighted old man. He felt no compunctions. He was too curious to see the girl who bought her own manuscripts.

Joel Newton went into the house, and after considerable delay, brought out a shrinking girl with a sweet and modest expression and manner.

She responded distantly to her father's proud presentation and sat down on the doorstep behind the visitor. But he boldly moved his chair and faced her. She saw, in the gloaming, a handsome, kindly face which began to wear a surprised expression.

"Yes, stranger," began her father, "my daughter's lots of help to me since she began writing stories."

"O, father, see that moth!" The girl sprang into the foreground with a swift, light motion, and caught the pretty moth in her hand. "See, father, isn't it pretty? Would you like to see it, Mr. Graves?"

Percy Graves admired the gay-winged insect and appreciated the girl's quick tact; but he wondered more and more, and curiosity led him to drop in frequently on his afternoon walks to make a further study of this quiet, self-possessed, young woman.

And Lorena did not know that the agreeable young man, who became so brotherly in his manner and attentions, was her coadjutor in her literary crimes.

VIII.

But one evening she followed him down the long rose-embowered walk to the little gate in the lane. The moonlight shone on the fluffy curls of her downcast head.

"Mr. Graves," she said in a tremulous voice, "I have come out to speak with you alone. My father persists in telling you that I am a paid contributor to the *Fireside and Florist*. You see, Mr. Graves, I cannot cross my father, and I wish to tell you all about it. You have been so kind to us, and it will do no harm for you to know."

Then Percy listened to her pathetic story, which he had already surmised, and his own voice was trembling as he took her cold hand in his.

"You are a noble girl; but I know something about this plot, too. I am the editor of the *Fireside and Florist*. My assistant has been reading your stories, in my absence, and I understand they are to be published."

She had snatched away her hand. "You shall not publish those stories out of kindness!"

"Indeed I will. Think how it will please your father. I am going in now to tell him who I am. Come, please."

She responded to his quiet air of authority and followed him.

Joel Newton lay on the lounge reading by the strong light of a student's lamp. He seemed not to be at all surprised that an editor from the city had sought out his daughter in this bold manner. It seemed to him to be only a fitting conclusion to his dreams.

"I was sure she would succeed. Her mother did," he said, beaming upon them both gratefully, and Lorena knelt by his side and Percy Graves held his thin hand.

"But I have learned to love your daughter," continued the editor, "and will you not give her to me?"

Lorena turned away her face, and the old man started up with indignation.

"No, sir, Mr. Graves, I won't give her to any man. I have kept her at home to make a writer of her. Why, sir, she might have made the best match in all the country round, but I broke it up. I've kept Grant Maye away from her these three years by tearing up his letters at the postoffice—real loving letters they was, too."

"Father!"

The girl fled back into the shadows of the room, but no word escaped her but that one cry of pain and surprise.

But Percy Graves knew his duty, and soothing the old man with a few words, he passed out of the room.

Years before, when Grant Maye and Lorena used to go to school together with little tin pails in their hands, Grant used always to summon her in the mornings by a loud whistle at the gate.

That evening, an hour later, the same old whistle called her from her watch by her father's bed.

Lorena ran down the rose walk straight into the arms of her lover. Only for a moment she let his kisses fall on her brow.

"Go for the doctor, Grant, I think father is worse," she whispered.

That night the old man died, and the modern Cordelia laid down her literary pen.

This is what she wrote to Percy Graves in reply to his protestations.

"The world is more in need of good home-makers than good story-makers. As I was faithful to my father, perhaps I can sacrifice as much and as well to be faithful to my new duties and responsibilities as the wife of Grant Maye."

THE BOTTOM OF THE OCEAN.—There is a common but erroneous notion to the effect that a human body, or even a ship, will not sink to the bottom of the profounder abysses of the oceans, but will, on account of the density of the waters at a great depth, remain suspended at some distance above the surface of the earth. This is an error. No other fate awaits the drowned sailor or his ship than that which comes to the marine creatures who die on the bottom of the sea; in time their dust all passes into the great storehouse of the earth, even as those who receive burial on land. However deep the sea, it is but a few hours before the body of a man who finds his grave in the ocean is at rest upon the bottom; it there receives the same swift service from the agents which, in the order of nature, are appointed to care for the dead, as comes to those who are revently inhumed in blessed ground. All save the hardest parts of the skeleton are quickly taken again into the realm of the living, and even those more resisting portions of the body in time are, in large part, appropriated by the creatures of the sea floor, so that before the dust returns in the accumulating water to the firm, set earth, it may pass through an extended cycle of living forms.—Scribner's Monthly.

YOUNG FOLKS' COLUMN.

Signal's Lily Flag Tells Her History.

Some of our young folks may remember that Signal's Lily Flag is the famous cow that is now queen of the Jersey race, because she produced 1047¾ pounds of butter in a year. Her story as told by herself in the *Country Gentleman* will please every boy or girl who has a pet cow, and possibly if you will read Lily's story to your cows they may do better themselves; who knows? But this is the narrative:

Born in Huntsville, a lovely town of Alabama, I was not considered anything remarkable, because my owner had other handsome calves, though my mother and father being of the aristocracy of cows, I of course inherited blue blood.

My first thought of the world was its beauty and happiness—the mountains in the distance, my owner's home, the kind colored face that looked after me, and then I wondered if all calves were as happy as I; all day frolicking in the sunshine, and waiting for my mother's coming home. Then leaving my companions, I would listen patiently to the conversation of the elders. One evening they said our owner had decided to send us to a farm two miles distant, and I wanted, very much, to ask questions, but being a well-trained calf, I waited until alone with my mother, and told her how sorry it would make me to leave our beautiful home, and the lovely flowers at which we could peep through the fence. She assured me it was much healthier in the country, and she thought we would be kindly cared for, so I became reconciled to the change, and the next day the dear home was left behind us. Then I had my first glimpse of the world—the Big Spring, where the clear, cool water, laving our feet, made me wish we could linger for hours, but the shadows were getting longer, and we had to "move on." Our town seemed so large that I thought we should never pass through its streets. There were big houses and strange people, and I felt frightened, but kept close to mother's side and shyly looking at her, the quiet, placid face made me know that I was young and ignorant, and that she was accustomed to the outside world. We met a number of cows, so different from us that I realized why my mother had such dignified pride. Some people said as we passed: "How foolish of Mr. M. to invest in fine stock; this is not the country for them, and he will surely fail." I wondered if failing meant dying, and if we would have to be sent to the slaughter-pen, for then I had not heard of money or its value.

The first change was not a happy one, but when our owner discovered this, he kindly sent us where loving care and wise judgment guided our future lives. How well I remember the green meadows of the new home as they first greeted our tired eyes! The sun was sinking in the west, casting its yellow glory on the surrounding clouds, and lovely Monte Sano, still encircling us with protecting arms, caused me to feel, truly, "here we rest." My readers must not imagine that a calf could give expression to such thoughts, but as a cow of celebrity I look back upon my past life, and think of that lovely scene with pleasure.

By our new owner's side stood a friend, who, I afterward heard, was from far-off Kentucky. He complimented us and said: "I would ask no surer fortune than a stock farm near your city; the climate is perfect, neither too hot nor too cold, and with care and cultivation your grass and grain will rival my own beautiful State. I predict a success for the Monte Sano dairy." How different were the words spoken as we passed through the town two years before! I wanted so much to know what it all meant, but he could not understand cow-talk, so I waited to ask of wiser heads than mine. The pretty daughter of the house came to welcome us, and as she stroked my head and claimed me for her pet, my heart went out to her, and the love I then gave her grew stronger as time went by.

For a long time, life was uneventful, but happy. I should like to tell of the pleasant days of calf-hood, of the merry Christmas nights, when, it is said, cows get on their knees at 12 o'clock, and other frolic times, but it might be tiresome. We were kindly and tenderly cared for, and when passing cows would stop to gossip, telling of being turned into the street to wander all night, after a scant supper, we were thankful for our own comfortable stable and beds of hay. Four years passed and I was a dignified matron, with the right to join in the conversations of my elders, and stand among the honored mothers of the herd. Dear Miss Eva was now a lovely maiden, and I still her favorite. Often she would come with salt for me to lick from her dainty hand, and laughed merrily as my rough tongue touched her soft palm, but she stroked my head lovingly, and with kind words bade me "good night." Her presence brought sunshine and brightness, for her life was a long summer-day. You, who belong to a higher race, do you doubt that animals notice changes in those they love? It was not long before I felt that there was *something* in the manner of my young mistress that I failed to understand. A soft light shone in her eye, and in its depth a gleam of strange joy. Her hand, too, rested more gently on my head, and I knew there was some secret, beyond the comprehension of a poor bovine. I did not, however, puzzle my brain over this, but found comfort in a good supper of corn-meal, bran and hay. One evening Miss Eva did not come alone as usual, but a handsome young man was with her, and the happy look was happier. It was my first experience with lovers, and I became greatly interested, listening with curiosity to their conversation, for they did not care to hide heart-secrets from a cow. Soon my owner joined them, and I was roused from my thoughts by his saying: "I believe I will enter Lily Flag this year for the champion cup, as I think she can easily become the queen of the world."

At these words, ambition stirred in me and I shook my head, trying to make him know that I would do my best. Miss Eva said, in a hesitating tone: "Then, papa, you will let her be my bridal gift; I have always loved her, you know." When I heard the promise given, there was another incentive to me to win.

Next day the great test began, and as the weeks and months went by, I eagerly listened to the daily record. As the year drew to a close, I became more excited—would I win and become the champion cow, and my small head wear the crown of victory? I could not be present at the daily churnings, but during the milkings I heard, each day, the number of pounds of butter discussed, and I knew I was gaining. Three or four gentlemen came from a distance; one, they said, was from a cold country called Canada, who was sent by the president of the American Jersey Cattle Club to be present the last ten days of the year. I did not know the meaning of it all, but I felt my importance, and would only associate with one or two of the best cows. My mother chided me for undue vanity, but my head was turned by the words of praise showered upon me daily. Finally the last day came, and I passed the world's record! But the number of pounds was not told me, as no one thought a cow would feel interested in her own work. I could hear them tell of friends invited to be present at the last churning, and what a triumph it was. In the meadow, gay voices reached us as the different carriages drove to the dairy, and I longed to be near, for I had learned to love the praise bestowed on me. Very soon, though, ladies and gentlemen came where I was, and each wanted to pat my head and give a word of praise; but the proud moment of all was when Miss Eva tied a blue ribbon on my horn, and with a wreath of lilies crowned me the champion cow—the Queen of the World. There was victory in my eye as I tossed my head and walked proudly away.

I must know the record; so, creeping close to the crowd, I listened. Signal's Lily Flag had made in one year one thousand and forty-seven pounds, and three-fourths of an ounce of butter—eighteen pounds ahead of any other cow—and she had won the cup!

My owners presented a handsome watch and chain to Mr. Godell, to whose nurturing and constant care, patience and good judgment, I owed my development. Three cheers were then given for Lily Flag. I should have liked to join them, but feared a little discord in the music, and possibly a panic in the crowd; but what rejoicing we had that night among the cows in the moonlight! I forgot my vanity and received congratulations from all friends with a happy, grateful heart. We raced around, throwing up the earth with our horns, and had a grand jubilee, while our owners dreamed of the victory won. Each cow told all she heard. One said fifty cows of the Jersey stock were to be sent to the World's Fair, and four from our herd had been selected. What was the World's Fair? Some of us had been at a fair in Huntsville, where men would walk around and look and talk about us, and then tie on a piece of blue ribbon, and we were brought home. Was that like the World's Fair? My mother said I would certainly be one of the four, and she thought it better to have patience and wait, as it was time for even the queen cow to be asleep. For days nothing was talked about but the success.

One evening I overheard a note read by my owner to our attendant, and in it were the congratulations of President Harrison, and another note came from Mr. Cleveland, who must have been some great man, too, for when his name was mentioned, cheers were sent up for him so like those given for me that I thought if I was a queen he must be a king.

Entertainments were given in my honor, of which I only heard, as, of course, I could not be present. Another excitement came into my life—the marriage of Miss Eva. It was a lovely October evening when I saw great preparations being made for the happy event. They gave me an extra good supper, and then rubbed me off until my skin was glossy and beautiful; a long white ribbon was tied around my neck, and then they led me in front of the parlor window. The scene was very lovely—a bower of flowers, soft music, and many pretty women and handsome men. In the center of the group stood Miss Eva in pure bridal robes, with the same soft look on her countenance I had seen during the past year. By her side stood the handsome young lover, and from his kind, manly face, I thought both Miss Eva and I could trust him with our future. I was formally presented by my two owners as a bridal gift, and as the fair bride held the ribbon I could only look my love. Should I attempt to describe all that happened on that memorable day, my readers would say: "How does a cow know of things beyond the animal kingdom?"—and, in fact, I *was* glad to leave the people to their pleasure and hie away to my companions.

Blind Girl's Buff.

Blindman's buff, under the new name of blindgirl's buff, is in our midst. This is the way it is done. The pretty buffer is blindfolded by means of a long, black mask, which effectually keeps her from gazing underneath. She is then seated in the middle of the room, while the company, joining hands, slowly walk around her. High above her head the buffer flourishes a weapon not unlike the shield which the darkeys down South use for protection against flies and mosquitoes.

As the mystic circle silently passes around the blindfolded enchantress, the latter brings down her wand lightly upon the head of any one whom its aim may concern. He quickly catches it, kisses the hand of the Queen of the Mask, and takes his place upon the throne, where he in turn sways the scepter. Should a young woman be touched with the wand she embraces her ex-queen and tries her own hand with the wand.

The game is made interesting by the announcement that should the queen fail in three strokes to touch one of her subjects she is presented later on with the Court Jester's paper cap and bells. And should any subject be so fortunate as to be three times chosen, she is given a jubilee and is awarded a gilt-crown, or, prettier still, a flower one. —New York World.

TOM (of Pittsburg)—Did you see the aurora borealis while you were East?

Laura (of Oshkosh)—No. You know there are very few theatres open at this season of the year.

ROYAL

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A cream of tartar baking powder Highest of all in leavening strength.—*Latest U. S. Government Food Report.*

Domestic Economy.

STRAWBERRY WATER ICE.—One quart of strawberry juice, the juice of two lemons, one pound of sugar and one pint of water; mix well and stand aside for one hour and then freeze it.

CORN MEAL MUFFINS.—Two cups of Indian meal, two cups of flour, one heaping tablespoonful of sugar, two eggs, one heaping tablespoonful of butter, two teaspoonfuls of baking powder, sweet milk to make a thin batter. Bake in gem-irons.

MOLASSES COOKIES.— One egg, two-thirds cup molasses filled up with white sugar, two thirds cup lard, one cup buttermilk, one heaping teaspoon of soda, a little salt; mix soft, roll quite thick, bake quickly. They will keep quite awhile if kept in a jar covered.

TAPIOCA CREAM.—Soak three tablespoonfuls of tapioca in one half-cup of water over night. Bring one quart of milk to a boil, then put in the tapioca. When cool, add the beaten yolks of four eggs and one cup of sugar. Pour in a dish and add the beaten whites.

KATTOFFELPANNAKUCHEN OR POTATO CAKES.—For a family of four persons, take six large Irish potatoes and grate them in a bowl, add three eggs, teaspoon "level" full of salt and one of baking powder, one tablespoonful of flour. Beat well and bake in thick cakes on the griddles.

TO MAKE POTATO BALLS A LA ROUENAISE.—Boil the potatoes and rub them fine, then roll each ball in white of egg, lay them on a floured table, roll into shape of a pigeon's egg, dip them in melted butter and fry a light brown in clear, hot grease. Sprinkle fine salt over and serve in a folded napkin.

CORN STARCH CAKE. — Four eggs, the whites, two cups of sugar, two-thirds cup of butter, one cup of sweet milk, one cup of cornstarch, two cups of flour, two teaspoonfuls of cream of tartar, one teaspoonful of soda, one teaspoonful of lemon extract. Bake three quarters of an hour with a steady fire.

RHUBARB JELLY.—Take rhubarb stalks, wipe clean, peel and cut into inch pieces. To each pound of fruit add three-quarters of a pound of white sugar; put it on and boil it until the juice is well drawn. Strain into preserving kettle, boil quickly until it clings to the spoon; skim well and put in molds or jelly glasses. Use no water.

HAM TOAST.— Slices of toasted bread with the crust cut off, two eggs, two tablespoonfuls of butter, some cold ham or tongue grated. Put the yelks and whites, well beaten, into a stewpan with the butter; stir them two minutes over the fire, spread them over the toast and lay over them a sufficient quantity of of cold ham or tongue.

RHUBARB PUDDING.—Prepare the stalks as for pies; butter well the bottom of a pudding-dish, then lay in buttered slices of bread; cover with rhubarb, sprinkle abundantly with sugar, then another layer of buttered bread, and so on until the dish is full. Cover and steam while baking for half an hour, then remove the cover and brown.

BEEF FRITTERS.—Cut some thin slices from the undercut of the sirloin, and dip each slice into a good batter made of eggs, flour and milk, seasoned with allspice, pepper and nutmeg; have a pan of very hot lard or butter ready, and place each slice, well covered with butter, into it; fry a good brown; serve with mustard and mashed potatoes.

STRAWBERRY DUMPLINGS. — Make a dough precisely the same as for shortcake, roll into a thin sheet and cut with a large round cutter; put three strawberries in the center of each, fold the dough over, roll gently in the hand until you have a ball-shaped dumpling, stand these dumplings on a buttered plate, place them in a steamer and steam 20 minutes. Serve with cream.

QUEEN OF PUDDINGS.—Four eggs, the yolks, 1½ cups of sugar, butter the size of a walnut, one pint of crumbs, one quart of milk, one lemon, grated; bake until done, but not watery. Spread over the top a layer of jelly or preserves, beat the whites of the eggs to a stiff froth; add four tablespoonfuls of sugar and the juice of the lemon and spread this on. Then set it in the oven again to slightly brown.

CHOCOLATE CREAMS.—Two cups of white sugar, one-half cup of water. Cook rapidly for 20 minutes. Turn out on a platter, and with a large spoon stir until cold, when it will cream. Butter the fingers and work up into small balls, stick upon a large pin and dip into chocolate set over a steamer and melted; lay upon a greased platter to dry.

When Water Freezes.

Let us take our stand, says a contemporary, on the banks of a lake—preferably on a clear winter evening—and at once commence operations by ascertaining, by means of two thermometers, the temperature of the water at the surface and at the bottom, and we find, let us say, that these are 48° and 45° respectively. A cold wind sweeps over the surface of the lake, so that the temperature of the water there is speedily reduced, let us say, to 44°. By this reduction in temperature, it contracts and becomes specifically heavier, when of course it sinks and displaces the comparatively light and warm water below, which rises to the surface, gets cooled below 44°, and immediately falls, displacing the warmer water at the bottom, which in turn rises, gets cooled and falls, its place being again supplied by lighter and warmer water. And so the cooling and sinking process goes on, the upper thermometer always indicating the highest temperature, when suddenly the magic point, 39°, is reached, when all movement at once ceases. The upper layer of water is still exposed to the cooling influence of the wind, and speedily falls in temperature, but it still retains its place. Our upper thermometer shows plainly that the water which surrounds it is being rapidly reduced in temperature, but the lower one remains stationary at 39°. At that temperature we know that water is heavier than at any other, and there like a stone it remains at the bottom, and as it is fully protected from outward influences by the mass of superincumbent water, its temperature remains very much at the same point. The water on the top, however, having nothing to protect it, gets colder and lighter every moment. Down the thermometer goes to 37°, 35°, 32°, and then a slight breeze ripples the surface, and the next moment a thin sheet of ice spreads itself over all. The ice, however, is colder and lighter than the water, so that it floats on the surface and acts as a blanket, protecting the comparatively warm and heavy water below from being cooled. During even the severest winter, therefore, only a thin superficial layer of ice is formed, which serves all the useful and ornamental purposes required of it, and when its duty is finished, it readily melts and disappears under the genial influence of the first few warm days of spring.

How a Fish Sees.

The medium in which fresh-water fishes live gives them a chance to see a great distance only in the horizontal direction, and the proper adjustment of the eye would make, under usual conditions, the optical axis take this direction. To me it seems impossible to explain the constant revolution the eyeball on any other hypothesis except that given, viz.: That the optical axis extends forward instead of sidewise.

When a fish wishes to eat anything, either at the bottom of the pond or at the surface of the water, it swims directly toward the object; and in this case the eyes are instantly adjusted in line with the body, so as to bring the image of the particle desired upon the posterior portion of the retina. In this case they lose their usual horizontal position.

If a fish wishes to turn to the right or left in the water, the first movement is that of the eyes in unison with the direction of the turning. This would be entirely unnecessary if the apparent axis was the axis of most distinct vision, as one of the eyes would see all that was to be seen in the side of the turning. After this movement of the eyes, the body turns enough to bring the eyes into their normal position; then there is again a movement of the eyes, and next a movement of the body. This causes a peculiar jerking motion of the eyeballs during the whole time of the turning of the body.—American Angler.

PERPETUAL MOTION.—A writer in the *Engineering Magazine* says : The true inventor has no regard for dogma; he believes he sees light ahead and moves toward it. It may be that what he sees is an *ignis fatuus* or a chimera, but he insists on discovering that for himself, and he is satisfied with no theories. I recently talked with a perpetual motion man and tried to dissuade him, being confident it would be easy to convince so intelligent a person that his scheme was not possible. But he arose above my dogmas in an instant by showing that the whole solar system is a perpetual-motion device, moving without assignable cause and not varying an instant of comparative time within the period of its recorded history. I thought of Galileo and stopped.

Washing Laces.

Fine laces that might be ruined if put into water, and washed in the usual way, may be cleaned without injury by using benzine. If the lace is old, the best way is to pin it smoothly to a board covered with flannel, and wet it with plenty of the fluid; then press it dry with a soft cloth. If all the dirt does not come out at once, move to another place on the board and repeat the process. Laces that are made up may be cleansed by putting them into a glass can or an earthenware bowl and covering them with benzine. Stir the lace round and round in the fluid as quickly as possible; squeeze the lace, and rinse it in more benzine in a clean vessel. Washed in this way, fine old lace keeps its yellow color and does not shrink. After washing by this process, pin the lace on a linen-covered board, and lay in the sunshine several hours. Silk laces are best sent to the scourer for a dry cleaning.

Cotton laces may be cleaned with water and fine white soap, but it is always best to wash them, as well as fine linen handkerchiefs and embroideries of various kinds, by themselves. Dissolve plenty of soap in lukewarm water, put the lace in a bowl or graniteware basin and turn the suds over it. Let the lace soak for an hour, setting the basin where the water will keep warm. At the end of that time, squeeze the lace carefully, put it in a fresh water that is warm and soapy, and rub it gently with the hands. When it looks clean, put over the fire in cold water and leave it there until it boils; then rinse it through several waters that are lukewarm and squeeze dry. Starch the lace in starch-water that has been strained, first dipping in strained cold tea. It is best to dip a fragment of muslin in the tea first to test the color. Pin the lace to a small ironing-board covered with flannel and clean muslin, and take a pin and carefully lay the points and purling of the edge in place. Lay clean muslin over the lace and press till dry with a moderately hot iron.

Lace curtains and bedspreads are nowadays sent to those who make a specialty of such work, and who have frames and other appliances for doing the work well. The washing of such pieces is in itself easy enough, but the spreading to dry becomes very tiresome if there are many pairs of curtains to be freshened.

The dirt on such large pieces is often a great deal of it dust, and for this reason they must be thoroughly brushed before putting into the water. Soak the pieces in soft water, or in water softened by plenty of borax, and if possible set the tub containing them in the sunshine, as that will help to bleach them. The second day, rinse them through a tepid water containing pure white soap, and wash them up and down with as little rubbing as possible. Rinse through several waters until clear and white, and get out every particle of soap, as that will rot the lace. After rinsing, pass through a wringer, or press the water out by hand with as little wringing as possible, as hand-wringing is apt to weaken or tear the mesh. Hang out at full length on the line, and when nearly dry, rub into them starch containing gum arabic in a proportion of a tablespoonful to one quart of boiling water. Roll the curtains smoothly, wrap in a clean cloth for three hours, and then shake and stretch on a clean sheet pinned on the carpet. The curtain must be stretched and pinned evenly, or the edges will be very irregular when dried. An ecru color is given to lace by coloring the starch with tea made from timothy. Laces to be worn at the throat or wrists should never be starched or ironed. N. Y. Post.

Complimentary Samples.

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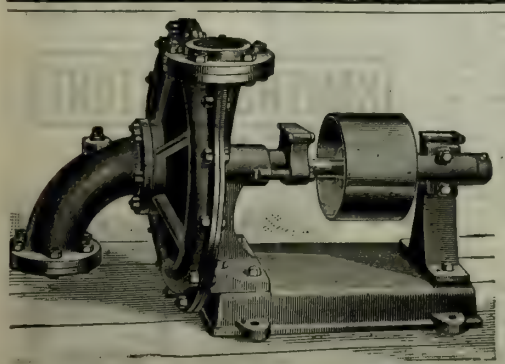

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AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

THE SUGAR-BEET CROP.—Pleasanton *Times*: Mr. J. W. Atkinson, superindendent of the Alameda Sugar Refinery at Alvarado, paid Pleasanton a visit in the interests of the sugar-beet crop. He made a visit to a number of the ranches and was greatly pleased with the outlook. In an interview with him, he stated that the crop had proven far beyond his expectation, and that he thought there would be no less than 3000 tons shipped from here this season. He also stated that shipping would commence within eight or ten days. Next year he expects to have a much larger acreage.

Butte.

FRUIT NOTES AROUND PALERMO.—Oroville *Register*: H. C. Bell and E. P. Farnum visited the Palermo orchards this week and speak very highly of them. The orange groves on the Hearst & Taylor tract are very fine, and the trees show as rank, vigorous and healthy growth as any in the county. The peaches, pears, grapes and other fruits on this land are exceptionally fine. The ground is kept in good condition, and everything indicates that money, labor and good judgment have all been combined. The grounds about the residence, the lawns, gardens, etc., are well cared for. The buildings are in good shape. A large quantity of peaches are being shipped this season and the fruit is choice. The orchards throughout the colony were all found to be doing well and in a thrifty condition. The irrigation ditches are running full of water, and many hands were at work irrigating the orchards. All the trees are in a good healthy condition. It was estimated by Mr. Schram who is in a good position to know, that fully 50 tons of green fruit have been shipped this season and 25 tons of dried peaches. This would be equal to nearly 200 tons of peaches in all. One of the growers said that his young peach trees now bearing their crop were returning him a dollar to the tree, or a little over $100 an acre.

PHENOMENAL GROWTH OF ORANGE TREES.—*Register*: "In 1886," said Senator A. F. Jones, "I planted 50 orange trees in my yard in Oroville; the outer row around the yard consisted of 20 seedlings. About ten feet west of seven seedlings was an eight-foot board fence which I have had whitewashed ever since. The seven trees next to the fence and east of it grew with wonderful rapidity. In December, 1891, they paid $2 to the tree and were about 16 feet high, 22 inches in circumference at the base and had an immense and luxurious top. The other trees of the same kind, planted in the same yard, grew very well but are one-third smaller, and have borne but little fruit as yet. Mr. John Rock of San Jose suggested to me in 1890 that the high whitewashed fence was the cause of this phenomenal growth, his idea being that the fence reflected the heat of the morning sun on the trees, and also prevented them from being burned by the excessive heat of the mid-afternoon of the hot summer days. In April and May, 1892, Mr. E. W. Fogg was planting olive trees in his olive grove at Thermalito, and I was planting olives at the Rancho Golden Grove just across the way. Mr. Fogg had seen my orange trees and heard of the suggestions of Mr. Rock about the fence, and just for an experiment he placed three stakes around his newly planted trees and tacked white cheese-cloth on these, leaving the southerly and east side open. The trees planted by me in the Rancho Golden Grove have done well, making an average growth of six inches, but those planted by Mr. Fogg and protected by his shading of cheese cloth have all grown 100 per cent better than mine; his growth is about 18 inches as against nine inches on my trees. The expense in erecting the shades was about three cent per tree.

Contra Costa.

THE RODEO MEAT-PACKING ESTABLISHMENT.—Martinez *Democrat*: At Rodeo, the site of the great meat-packing industry in this county, the various buildings are being pushed to completion. Five large boilers and a huge engine have been put in their positions, and the machinery for the various departments is being put up by skilled machinists. There are a large number of men and teams at work on the company's reservoir, which, when completed, will have a capacity of over 1,100,000 gallons. It can scarcely be realized by those who have not visited Rodeo that such an enormous amount of capital has been expended there within a few months, but such is the case, and in the near future the new town will present a busy scene, and one in which the sellers of sheep, cattle and hogs and the buyers will participate.

El Dorado.

FARM NOTES FROM BEAR CREEK.—Cor. Placerville *Democrat*: Fruit-pickers and packers are busy in this district. Bartlett pear and plum orchards have produced well, the quality of the fruit being fairly good. John Day raised a crop of wheat on his ranch that is fully equal in quality to any ever produced in this State. James Moore will commence next week to harvest his third crop of alfalfa from the same ground.

Fresno.

EXPERIMENTING WITH BOY GRAPE-PICKERS.—Fresno *Expositor*: A special car filled with boys, ranging in age from 16 to 20 years, arrived in Fresno from San Francisco. They were engaged by D. W. Parkhurst to pick his grapes. Mr. Parkhurst's Japanese struck, and he believed that he could employ a number of boys and have his crop gathered in a satisfactory manner. Being just from the city, of course they will know nothing about raiding water-melon patches and peach orchards. It would be too bad if they should come in contact with some country boy who would teach these guileless youths such bad habits as visiting water-melon patches and henroosts. When they left the cars they impressed upon those who saw them the fact that they seemed full enough of life to do a good day's work gathering grapes, and no doubt the boys will be a success. At any rate the move on the part of Mr. Parkhurst will be closely watched by other vineyardists, and if the undertaking is a success, next year whole armies of boys may be brought here to pick raisins.

Kern.

CORN SUCCESSFULLY CULTIVATED.—"B" in San Jose *Mercury*: The soil around Bakersfield is in the main a rich, warm, sandy loam, traversed with 300 miles of irrigating canals, which have an inexhaustible source of supply in Kern river. Combine these given facts with an almost tropical climate, and practical agriculturists and horticulturists will be prepared for almost any statement. And yet we almost hesitate to tell them the truth, that we saw thousands of acres of corn, the *average* height of which was over 12 feet, many stocks being from 14 to 15, and that there were many bushels of ears that even big Bill Brown could not have plucked without using a stepladder or bending the stalks. Mind, too, that this corn was not planted until July, a crop of barley hay having been previously harvested from the same land.

Orange.

THE WALNUT INDUSTRY.—Anaheim *Gazette*: The walnut industry bids fair in the coming time to be one of large magnitude in this section, where climatic conditions combine with soil characteristics to favor the best results in growing and marketing this profitable crop. Where we now ship out 125 or 130 tons annually, our exports are destined in a few years to be by the trainload. In the raising and marketing of this crop, we are second only to the Rivera section, admittedly the most extensive walnut-producing center in the country. At the present time it is doubtful if the trees in bearing here will cover more than 150 acres, a great many aligning the streets and roads; yet the acreage set out to young trees now rapidly approaching the bearing stage goes extensively into the thousands. Of the orchards at present returning handsome revenues, those of Mr. Stone at Fullerton and Mr. Gilman at Placentia may be cited in evidence. The former gentleman has an orchard of 33 acres of magnificent trees in bearing, which this year will produce 12 tons, valued at $1700. Mr. Gilman's crop amounts to 30 tons, and was sold a couple of weeks ago for $4200. The rest of the crop hereabouts comes from small orchards and from trees aligning the roadway, and will go probably to 125 or 130 tons all told. At 7 cents per pound, the crop will thus bring into this section the snug sum of $18,200. The output, moreover, is being increased constantly by the addition of young trees coming into bearing, and next year will undoubtedly be much larger than this season. New orchards are being set out on an extensive scale, the total new area amounting to 2000 or 3000 acres. The big walnut grove below town, containing 600 acres, the largest walnut orchard, by the way, in the world, is coming on nicely, and will in a few years be good for several hundred tons of nuts. Aged trees, say from 12 to 15 years old, yield upward of a ton per acre.

Placer.

FRUIT FOR ENGLAND.—Auburn *Argus*: The Auburn Cooperative Fruit Company shipped on August 31, by the export special train, a carload of fruit to James Adam, Son & Co., Liverpool. The car contained principally peaches, there being 950 boxes of that fruit, all of which were five-inch boxes, running about 49 peaches to each box, many of which were 20-ounce peaches. There were 150 boxes of pears and plums and a few crates of grapes, all of the choicest that could be gotten. It is expected that this will prove to be the finest and most profitable carload of fruit ever shipped from Placer county, and reports from the sales will be anxiously looked for. There are about 25 growers represented, and each brought in their best fruit. A box of the finest peaches were directed to the Lord Mayor of Liverpool as a gift.

Plumas.

THE HONEY LAKE DAM.—Reno *Gazette*: Wm. Bovard, one of the ranchers in Honey Lake valley, made a very flattering statement. He says that he has no doubt that the irrigation scheme of that company will prove a great success by reclaiming between 75,000 and 100,000 acres of as fine agricultural land as can be found on the Pacific Coast, lacking only water to make it as productive as the meadows on the Truckee. The completion of the dam now in the course of construction is assured. Two hundred horses and a large force of men are working on it steadily. All of the horses and feed, Mr. Bovard says, were purchased of the farmers in the valley.

Solano.

FRUIT NOTES.—Suisun *Republican*: On the 24th of August, Alex. Davis, a representative of Castle Bros., bought the entire crop of dried peaches of Mrs. E. P. Buckingham, paying 12½ cents per pound. Up to August 24th of this year, 383 carloads of green and 18 carloads of dried fruit have been shipped from Vacaville. Last year the number for the whole season was 564 carloads of green and 151 carloads of dried fruit. It is expected that that record will be surpassed this year. The receipts of cash this year have been $371,000 as against $241,000 at the same time last year.

Tulare.

HOW TO PLANT TREES AND VINES IN ALKALI. C. J. Berry in Visalia *Times*: Many of our orchardists and vineyardists have a small spot of alkali ground, located sometimes in the back part of their orchard or vineyard out of sight of the critics and generally out of sight of the owner, and for that reason does not cause the annoyance that it would if located directly in the front part of their ranch where everybody who sees their trees or vines looks at that spot first; and all the time I am confident that any and all of our orchardists will go to a good deal of trouble to overcome the appearance of this sore spot. To do so you should dig the holes for your trees or vines at this season of the year, in the month of September. The holes should be dug extra deep and wide, three to four feet, and the same width. All of the dirt that is dug from these holes should be scattered broadcast over the land, and when planting season comes on, none of that dirt dug from the holes or any of that surrounding them should be used. The holes should be let stand open until you are ready to plant your trees or vines. When so ready, with a wagon and team of horses, haul some good, rich, alluvial, surface soil from some other part of your ranch (do not use sand) and plant your trees and vines in the holes dug, with this good soil, and you will be pleased at the result, and the sore spots in your orchard will be cured. Be sure to be liberal in digging the holes. A little extra labor here will give you more satisfactory results. This process will give your plants a chance to get thoroughly rooted, and I have found when a tree or vine is once growing vigorously, what alkali is in the soil is a benefit to fruit and grape culture.

HEAVY WHEAT.—*Times*: J. J. Cairns, the biggest wheatgrower in the San Joaquin valley, came into Visalia from his home near Lindsay. His wheat is turning out moderately well. The quality of his grain this season is even better than last. On one tract near Deer creek he harvested 14,000 sacks that averaged 140 pounds to the sack—a quite heavy weight. Smut, he says, troubles him but little, and he attributes this to careful bluestoning of the grain before sown the spring.

A LARGE PRUNE ORCHARD.—Hanford *Journal*: The Kimble orchard embraces 544 acres, all set to prunes, and it is the largest prune orchard in the world, being double the size of the next largest, 250 acres located near Paso Robles. The land does not lie all in one body, but is in different tracts near together, there being five of these tracts in all, each in charge of a different foreman and all superintended by Mr. Clark. Along the public roads in front of the orchard are set 2¼ miles of acacia trees 37½ feet apart. There are 66,000 trees in the orchard, and probably 30,000 of these trees show a growth of 10 feet this year, and many a growth of from 11 to 12 feet, with a 12-inch girth of the trunks, the number of limbs on the trees varying from 10 to 40. With the exception of a few spots which were overflowed or were strongly impregnated with alkali, the trees have grown rapidly and evenly. The orchard has been plowed twice and harrowed right after plowing, and has been cultivated already about 12 times this season and hoed three times, and hardly an armful of weeds can be found on the whole tract. He started his cultivation at a depth of five inches, and has gradually increased the depth until the last two cultivations, which have had a depth of nine inches. None but white labor is employed on this farm, as Mr. Clark, who has had many years' experience in orchard and vineyard work, says that white labor is far preferable to Chinese, and cheaper. The employes on this ranch are well housed and fed, and the treatment they receive is evidently appreciated by the workmen. There have been as high as 85 men eating at the house at one time during the past spring, but the wants of their "inner man" have always been well attended to, and the average cost of board to the owners of the place has only been $11.25 per month per man. The cooking is also done by white labor.

ARIZONA.

DROUTH IN SOUTHERN ARIZONA.—Crittenden Cor. Wilcox *Stockman*: In your article on the drouth of southern Arizona, in your late issue just read, all that you say of the drouth, of the scarcity of grass—and you could have added with equal truth the scarcity of water—is true, but you destroy the whole force and effect of your article by adding that rain had fallen in large abundance. In no part of Pima county is this true. Sheriff Brown, who was here a day or two ago, having driven all the way from Tucson, reports that in his official business he has been in every precinct in the county, and that this is the most favored section he has seen for grass. Our own observation coincides exactly with the above statement. There is no grass here, not even in the valleys, nor in the smaller draws that carry the water from the mesas to the valleys, and the farther from the valley you go the less the grass; even on the mountain sides to the summit all is gone. From present appearances, 50 per cent of all the cattle in southern Pima county are now dead. They died during the past winter and early spring. The rains of January and February, 1892, depleted the herds like as if they were showers of poison. No man to-day throughout all this section has within half the cattle that he had this time last year. There has been some fall of water over this section, but the area was limited over which it fell, and the time between each fall was so long that the effect of one rain was entirely lost before another came. Nothing but a miracle can prevent the total loss of every animal left in southern Pima county, and the sale of the cattle of T. Lillie Mercer at $2.35 per head was a good sale, considering the present condition of the range. Mercer gets over $2 for his cattle and the purchaser gets nothing.

A GRAND IRRIGATING PROJECT.—Tucson *Citizen*: The canal starts at the Oatman canyon in Yuma county near the station known as Chrystoval. It is 80 feet wide on the bottom, has 6 feet depth of water, and is 10 miles in length when it reaches the railroad from the river. It crosses the railroad track and again the second time crosses the railroad track 2½ miles east of Aztec and a third time it crosses the railroad ¾ of a mile from Aztec, then runs southeast 15 miles up and around the valley, then runs a trifle northwest following the base of the Mohawk valley, giving 70,000 acres south of the railroad under the canal and 91,000 acres north of the railroad, making a total of 161,000 acres. The Southern Pacific Railroad runs through 20 miles of this land. There is a large portion of this land that is mesa land, while at the north side of the track the river bottom lands have already in operation 22½ miles of canal. Thus we find a railroad traversing the entire length of these 161,000 acres subject to irrigation, and the farthest point from the railroad in this scope of land would be 15 miles—that is, the ranch that is situated on the extreme outskirt of this acreage would be 15 miles from the station. This canal company has 13 miles of continuous reservoir 11 feet of water depth to draw from covering 4000 acres. The length of the canal to Mohawk summit is 65 miles and a total canal length to the river of 75 miles. One of the features, and a most prominent one, of the designs of the company is to build a dam 110 feet high holding in reserve a volume of water covering 40,000 acres of space. This dam was the one so urgently recommended by the citizens' committee, two years ago, in Yuma. Where the dam is to be constructed, nature has so placed the topographical formation of the country as to furnish the material and aid the construction to a great degree inasmuch as the earth in that immediate vicinity is lava-covered to a depth of 10 to 40 feet.

NEVADA.

A BIG CROP.—Winnemucca *Silver State*: Chas. McDeid says he has just finished threshing at the Sonoma ranch, and is well satisfied for the yield this year. One hundred acres produced 2000 sacks of barley, and 30 acres produced 600 sacks of wheat. He will commence to-day to cut the second crop of alfalfa. The fruit orchard is looking very well, although the crop of fruit is not as heavy as in some years.

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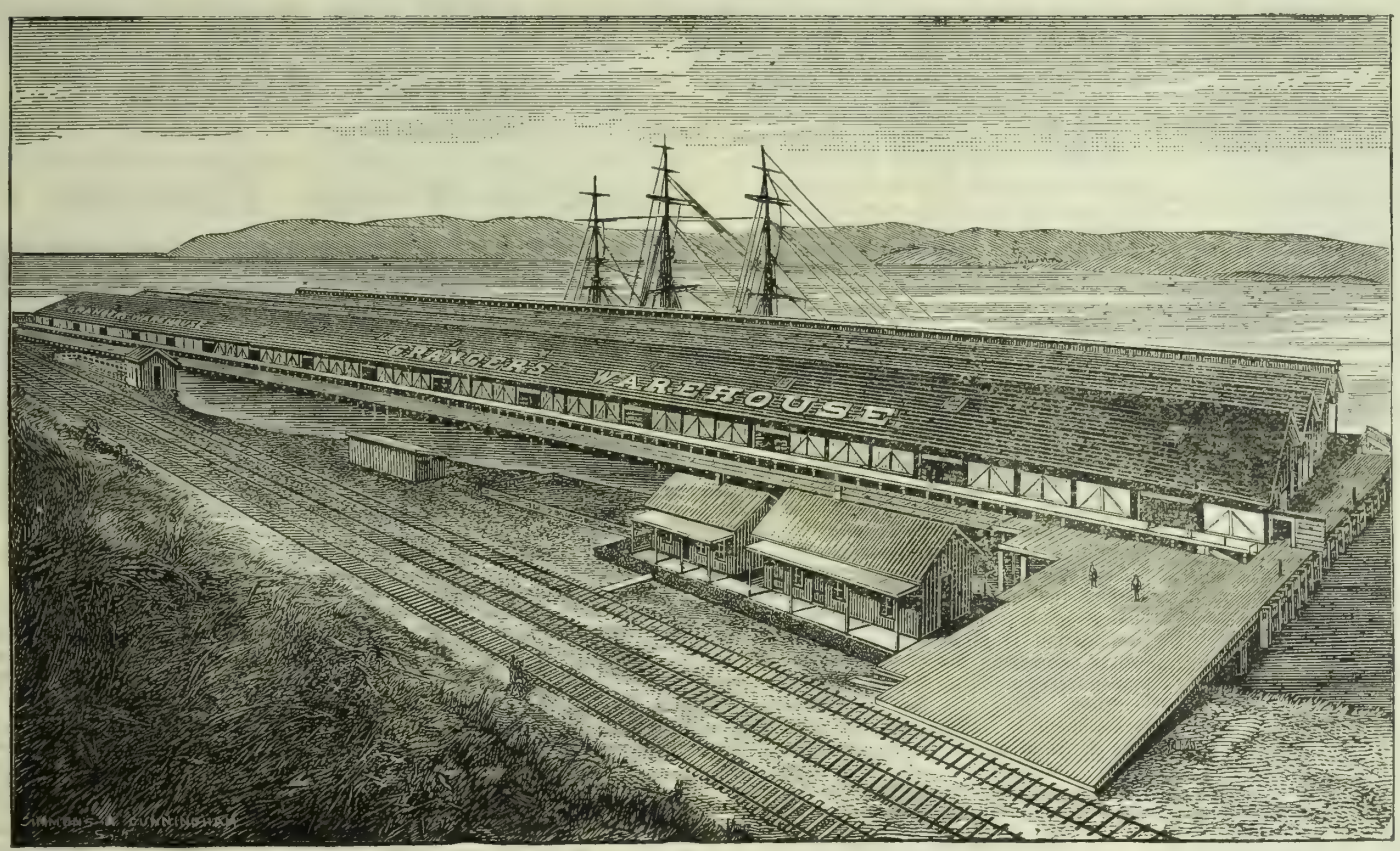

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The Secretary's Column.

By A. T. Dewey, Secretary State Grange of California.

Mr. and Mrs. S. C. Cross, of Roseville Grange, have removed to East Oakland, and we trust will become regular attendants of Temescal Grange, where they will certainly be welcome. Their two sons will attend the Baptist College at East Oakland. We hope to receive some of Mrs. Cross' able pencilings for this column.

STATE GRANGE MATTERS.

Under this heading a circular was forwarded last week from the Secretary of the State Grange to each subordinate Grange containing reference to the proposed amendment to the constitution of the State Grange, railroad rates, election of alternate representatives, etc. We extract the following from the official letter accompanying the circular:

Office Sec. State Grange, San Francisco Sept. 2, 1892.

W. M. and Members of — Grange:—The twentieth session of the State Grange will convene in the new Unitarian Church at San Jose, at 10 A. M. Tuesday, October 4th.

All Matrons and Husbandmen in good standing in the fourth degree of our noble Order are invited to honorary seats as visitors. The brothers and sisters of San Jose are making extra efforts for the comfortable and profitable entertainment of all who will accept their fraternal greeting and cordial welcome in the Garden City of California.

After harmonious working in this jurisdiction through a year of financial Grange prosperity, why shall we not have a large and happy gathering in such a hospitable and beautiful section of our field?

I take pleasure in calling your attention to an accompanying printed sheet, containing matter which should be read at once, or in installments, as soon as feasible, before your Grange, and all the important points made known as fully to every member as possible.

The fifth degree (Pomona) and the sixth degree (Flora) will be conferred in ample form, with a grand Feast of Pomona, on Thursday evening.

All fourth degree members in good standing are eligible and privileged to advance to the fifth and sixth degrees of the P. of H., by filing applications in due form, according to blanks heretofore sent to your Secretary, and the payment of $1 for such degree.

All indications seem favorable for one of the most pleasant and perfect annual council gatherings of our great brotherhood.

Secretaries will now please make out their annual statistical report on the blanks sent, forwarding one copy to the Secretary of the State Grange for placing on file, and hand a duplicate to the Master of their Grange, to aid him in making out a written report to read upon the roll-call of subordinate Granges and publication in the Annual Proceedings. Also send, for filing in the State Grange Secretary's office, a full list of members, as has heretofore been requested by the State Grange.

Let all resolutions and other work for the State Grange session be as fully and thoroughly prepared for the speedy and perfect transaction of business as practicable, and all who can, attend with a determination to do their best to plan for a new year of advancement unparalleled in the annals of our sure and steadily advancing Order. Yours truly and fraternally,

A. T. Dewey,
Sec'y State Grange of Cal.

Via S. F.—Patrons visiting the State Grange, and passing through (or going from) Oakland, can return on the west side of the bay, via San Francisco, by paying 15 cents extra for a ferry ticket. Unlimited stopover privileges are allowed on first-class unlimited tickets going to San Jose.

Temescal Grange has ordered new badges.

H. M. La Rue, Past Master of Sacramento Grange and Chief Viticultural Commissioner of the World's Fair, started to Chicago to assume the duties of his office last week. He has the hearty good wishes for the success he richly merits from Patrons and citizens generally.

Financial Statement.—The balance on hand and in the State Grange treasury September 1st, 1892, was a follows: In the general fund, $675 34; in the lecturer's fund, $1,702 08; total, $2 377 42.

The manuscript of an excellent annual address has been received from Worthy Master Davis, and will soon be printed in readiness for distribution at the State Grange session.

Another Good Link.—Past Master Overhiser has again scored a large credit mark by organizing on August 31st, with the assistance of a few others, Independent Grange at Linden, Douglass township, San Joaquin county, with 48 names on the charter list sent to the State Secretary. Officers were elected and a meeting appointed to install them on Wednesday, Sept. 7th, at 2 P. M. We hope there will be a good turnout of visiting Patrons from other Granges in San Joaquin county, giving the new Grange many warm hands of greeting.

At the State Fair.—Many Patrons will be at Sacramento during this and next week at the State Fair. Would it not be well for Sacramento Grange to establish Grange headquarters where Patrons can, day and evening, meet for mutual and fraternal conference? Sometime during the fair why should not Sacramento Grange have a rousing State Fair meeting? No harm to suggest, we trust.

PARAGRAPHS.

We cull the following from the *Farmers' Friend:*

The political pot is seething and boiling in this State, and, as usual, when the pot boils there is a great deal of dirt coming to the surface.

The political liar is at work, and working so vigorously that it is not safe to believe anything one sees in party organs about the sayings and doings of political leaders or men prominent in governmental affairs.

Cheer up, boys, the campaign orators will soon be on the stump extending sympathy to "the toiling millions." They always do just before the election, you know. When the ballots are all in, "the toiling millions can take care of themselves.

The fight against the adulteration of articles of food is growing pretty warm, and it would grow a great deal warmer if every one could read the special report on the extent and character of food adulteration, and find out that it is the rarest thing in the world to get a pure article of anything in daily household use.

The curse of this country is that its affairs are in the control of professional politicians whose principal means of support is officeholding. The man who has to devote all his time to keeping himself in office has none left to give to public affairs, consequently the business of the people is lost sight of in his persistent efforts to keep in office.

We have learned incidentally that the dominant political party of Bradford county made their nominations this year not by the old delegate system, but by what is known as the Delaware county system. The merit of the new plan is that each candidate goes before the entire voting population of his party on his individual popularity. The nomination is made by the people, each voter expressing his choice of men with as much freedom as on the day of the general election. This plan has a good deal to recommend it. The candidates selected are the choice of a majority of the voters of the party, and should of course have the full party support at the election in November.

Hotel Rates to Patrons.

The following hotel rates have been secured for Patrons during State Grange week in San Jose: Hotel Vendome, $2.50 per day; St. James, $1.50, except with some extra fine rooms the rates will be $2. The Nucleus, or St. Mary's hotel, will charge $1.25; the New York Exchange, $1.25; the Melville, $1; and the Auzerais House will furnish good rooms at 50 cents per day.

All communications as to hotels may be addressed to Cyrus Jones, San Jose.

The Pomona feast will be held in Turn Verein hall.

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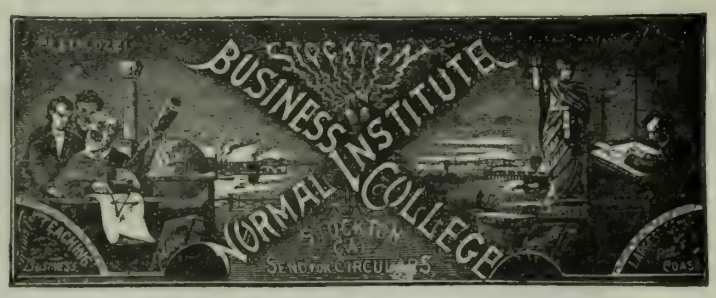

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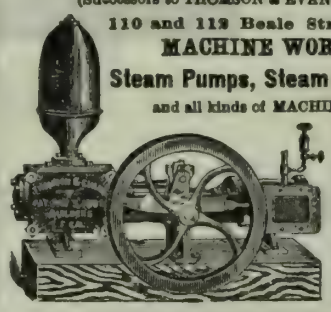

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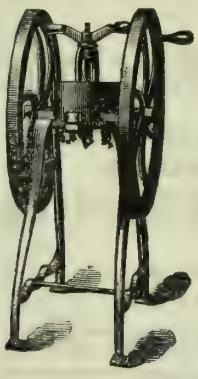
Recommended by Goldsmith, Marvin, Gamble, Wells, Fargo & Co., etc., etc.
It keeps Horses and Cattle healthy. For milch cows; it increases and enriches their milk.
623 Howard St., San Francisco, Cal.



Mann's Green Bone Cutter
FOR POULTRY FOOD.
Patented June 15, 1886; August 20, 1889. Canada Patent, June 12, 1890.
WE WARRANT this machine to cut Dry or Green Bones, meat, gristle and all, by Hand Power, without clog or difficulty, or MONEY REFUNDED.
GREEN CUT BONE WILL DOUBLE THE NUMBER OF EGGS, will make them 25 per cent more fertile, and increase the vigor of the whole flock. COST OF FEEDING MATERIALLY LESSENED.
These Cutters are endorsed by all the leading California poultrymen. Send for a Catalogue describing all sizes of Cutters and containing vaulable information in relation to feeding green cut bones.
PETALUMA INCUBATOR CO.,
Pacific Coast Agents. PETALUMA, CAL.

HEADQUARTERS FOR ALL VARIETIES OF FANCY FOWLS,
Ducks, Turkeys, Geese, Peacocks, Etc.
EGGS FOR HATCHING.
Publishers of "Niles' Pacific Coast Poultry and Stock Book," a new book on subjects connected with successful poultry and stock raising on the Pacific Coast. Price 50 cents, post-paid. Inclose stamp for information.
BREEDER AND RAISER OF THOROUGHBRED
Jersey and Holstein Cattle. Also, Poland China and Berkshire Pigs.
Address, WILLIAM NILES & CO., Los Angeles, Cal.

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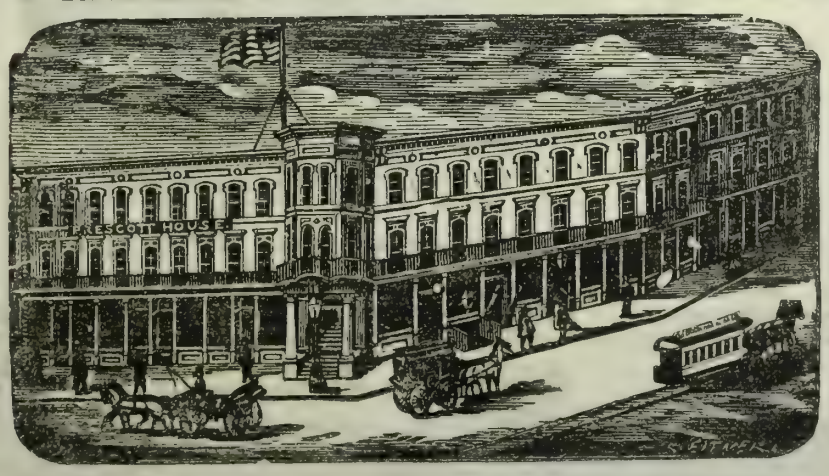

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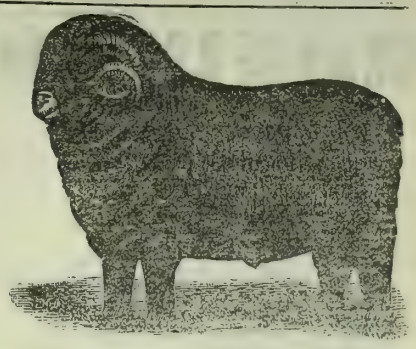
Free Coach to and From the House. J. W. BECKER, Proprietor.

BRIGGS CARRIAGE CO.,
We are now positively closing out regardless of cost our entire stock of First Class

Extension Top Carriages, Surreys, Phætons and Buggies,
TO CLOSE UP BUSINESS.
220 and 222 MISSION ST., SAN FRANCISCO.



WOODSIDE STOCK FARM,
WILMANS BROS., - - Proprietors
Successors to
A. G. STONESIFER,
Breeders and Importers of Thoroughbred French Merino Sheep,
NEWMAN, STANISLAUS CO., CAL.
Address correspondence to J. M. Lathrop, Agent, Newman, Cal.

OXFORD DOWN SHEEP
FOR THE PACIFIC COAST.
W. A. SHAFOR, - - Middletown, Ohio.
LARGEST AMERICAN IMPORTER OF O. D. SHEEP.
Twelve Years' Experience. Imports will arrive from England in July. Order Early. Get your neighbors to join. Order car lots by freight. Save Express charges.

COLTS BROKEN.
THE SOUTHER FARM,
One and a half miles northeast of San Leandro, Alameda County,
— HAS —
Every Facility for Breaking Colts Properly.
Rates Very Reasonable.
HORSES BOARDED AT ALL TIMES.
THE SOUTHER FARM,
GILBERT TOMPKINS, Proprietor,
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H. E. CARPENTER,
Veterinary Surgeon,
Graduate of Ontario Veterinary College, Toronto, Canada.
RESIDENCE AND VETERINARY INFIRMARY:
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OPEN DAY AND NIGHT.
No risk in throwing horses Veterinary operating table on the premises.

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By using the Pacific Incubator and Brooder, which will hatch any kind of eggs better than a hen. In universal use. Gold Medal wherever exhibited. Thoroughbred Poultry and Poultry Appliances. Send 8 cts. in stamps for 82-page catalogue, with 30 full-sized colored cuts of thoroughbred fowls, to Pacific Incubator Co., 137 Castro St., Oakland, Cal.

— THE —
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COMPANY,
1312 Myrtle Street, Oakland Cal.
Send Stamp for Circular

POULTRYMEN, Hens are beginning to stop laying and consequently the price of eggs is advancing. Every one should now feed Wellington's Improved Egg Food regularly if they desire to have eggs to sell when they reach high prices. Get it of any MERCHANT or of Proprietor, B. F. WELLINGTON, 425 Washington St., San Francisco.

RUPTURE, PILES and all Rectal Diseases POSITIVELY CURED, in from 30 to 60 days, WITHOUT OPERATION OR DETENTION FROM BUSINESS. Also ALL NERVOUS, SKIN, BLOOD, PRIVATE AND CHRONIC DISEASES OF BOTH SEXES. STRICTURE AND URINARY TROUBLES CURED. No charge unless cure is effected. Consultation free. Call or address for pamphlet. DRS. PORTERFIELD & LOSEY, 838 Market St. San Francisco, Cal.

APIARIAN SUPPLIES. Golden Italian Queens. Tested, $2.00 each; untested, $1.00 each. L Hives, $1.90 each. Root's V groove sections, $5.00 per 1000. Dadant's comb foundation, 58c and 65c pound. Smokers, $1.00 each. Globe veils, $1.00 each, etc. WM. STYAN & SON, San Mateo, Cal.

GRANGERS' BANK
OF CALIFORNIA,
SAN FRANCISCO, CAL
Incorporated April, 1874.

Authorized Capital	$1,000,000
Capital paid up and Reserve Fund	800,000
Dividends paid to Stockholders	720,000

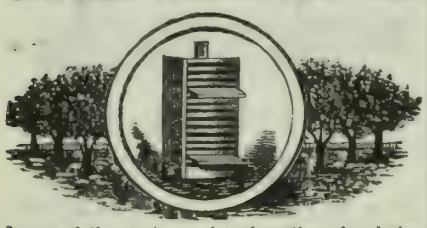
OFFICERS.

A. D. LOGAN ..... President
I. C. STEELE ..... Vice-President
ALBERT MONTPELLIER ..... Cashier and Manager
FRANK McMULLEN ..... Secretary

General Banking. Deposits received, Gold and Silver. Bills of Exchange bought and sold. Loans on wheat and country produce a specialty.

January 1, 1892 A. MONTPELLIER, Manager.

CALIFORNIA STANDARD FRUIT DRIER



Is one of the most complete inventions for drying **Raisins** and **Prunes** by steam in 24 hours—other fruits less time. No sulphur or potash used. Retains all syrup, juice and flavor in original purity. Capacity, dries from 75 lbs green fruit to 20 tons. Send for circulars. CALIFORNIA FRUIT EVAPORATING & M'F'G CO., 347½ S. Spring St., Los Angeles, Cal.

ALAMEDA STEEL WIND MILL.

10, 12 and 14 ft.

Cheaper than any First-Class Mill in the market.

Every One Guaranteed.

No bearings, no springs, no wheels to get out of order. The simplest mill in the world.

Agents Wanted

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TRUMAN, HOOKER & CO., San Francisco or Fresno.

WIND MILLS

WOOD — STEEL

If you are handling WIND MILLS you cannot afford to do so longer without having our prices. If you want a Wind Mill for your own use you will lose money if you purchase before seeing our line.

ECLIPSE - HUSTLER - BELOIT

WIND MILLS are the most reliable.

ANGLE & TUBULAR STEEL TOWERS!

Fairbanks, Morse & Co.
(Mention this paper.) CHICAGO, ILL.

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Paper Manufacturers and Dealers.

FRUIT PAPER!

Lining Paper of every description for Dried Fruit Boxes.

RAISIN WRAPS AND SWEAT PAPERS.

Manilla and Straw Paper in Rolls and Sheets.

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S.F. BAKER & HAMILTON SACTO.

NEW CALIFORNIA FRUIT GRADER.

Fruit Rides on Rubber Belts.

QUICKEST. CHEAPEST. CAREFULEST.

CAPACITY FROM 10 TO 50 TONS PER DAY.

ONE BOY CAN RUN IT.

Send for illustrated circular giving prices, sizes, capacity and testimonials.

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G. G. WICKSON & CO., - - - - 3 & 5 Front Street, Selling Agents,
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Hay Baler? If so, do you use our Patent
Steel Wire **CROSS HEAD** Bale Ties?
IF NOT, WHY NOT?

— MADE ONLY BY —

THE WASHBURN & MOEN MFG. CO.

San Francisco Office and Warehouse

8 and 10 Pine Street.

P.&B. FRUIT DRYING PAPERS.
(Patented Feb. 28, 1888.)

Specially Prepared for Drying Grapes and Other Fruits.

NO NEED OF EXPENSIVE WOODEN TRAYS. NO NEED OF TURNING FRUIT. COSTS MUCH LESS THAN ANY OTHER METHOD.

Put up in Rolls containing 1000 square feet, or in Reams of 480 Sheets—24 x 36.

SAMPLES AND CIRCULARS FREE.

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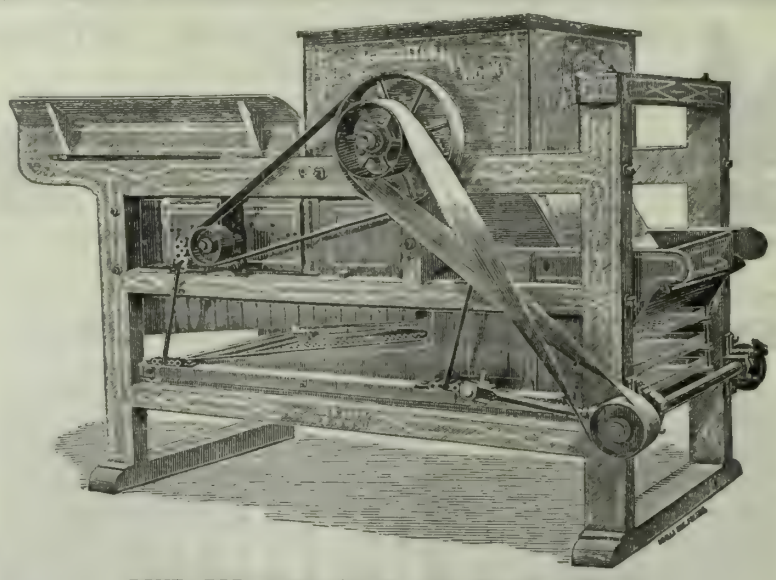

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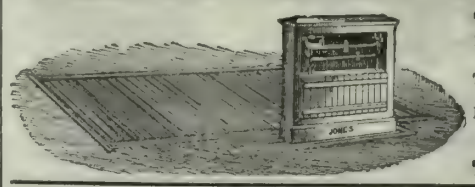
FRESNO AGRICULTURAL WORKS, - - FRESNO, CAL.



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Price $66, Delivered Anywhere in the United States.

These Scales have STEEL BEARINGS, Not Wood—BEAR THIS IN MIND.

From 25 to 50 per cent cheaper than any other Scales of like quality. All sizes and kinds of Scales always in stock.

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DEWEY ENGRAVING COMPANY,

Engravings made from photographs, drawings and original designs, for newspaper, book, card and job printing. Engraved prints enlarged or reduced, cheaply and quickly. Also copies of manuscript, legal documents, wills, contracts, signatures, portraits, buildings, machinery and printed documents reproduced with accuracy. Photographs, stereoscopic views, etc., duplicated, enlarged or reduced. Slides for magic lanterns made from photographs lithographs, and steel or wood engravings, etc. Satisfaction guaranteed. Agents wanted in all cities and in all towns. Address, for further information, DEWEY ENGRAVING CO., 220 Market St., San Francisco.

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DALTON BROS.,
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CALIFORNIA AND OREGON PRODUCE,
Green and Dried Fruits,
Grain, Wool, Hides, Beans and Potatoes.
Advances made on Consignments.
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Consignments Solicited.

ALLISON, GRAY & CO.
501, 503, 505, 507 & 509 Front St.,
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GENERAL
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GREEN and DRIED FRUITS,
POULTRY, EGGS, GAME, GRAIN, PRODUCE AND WOOL.

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GREEN AND DRIED FRUIT, NUTS, PRODUCE, POULTRY, EGGS, ETC.
CONSIGNMENTS SOLICITED. PROMPT RETURNS.
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MOORE, FERGUSON & CO.
WOOL, GRAIN, FLOUR
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General Commission Merchants,
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Members of the San Francisco Produce Exchange.

Personal attention given to sales and liberal advances made on consignments at low rates of interest.

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GEORGE MORROW & CO.,
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COMMISSION MERCHANTS,
39 Clay Street and 28 Commercial Street,
SAN FRANCISCO, CAL.
SHIPPING ORDERS A SPECIALTY.

BRAY'S SONS & CO.,
Successors to BRAY BROS. Established 1855.
COMMISSION MERCHANTS.
Members S. F. Produce and Hay Exchange.
OUR SPECIALTIES—Grain, Beans & Hay.
Consignments from farmers and others solicited. Highest market prices. Prompt returns. Correspondence invited.
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EVELETH & NASH,
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And Dealers in Fruit, Produce, Poultry, Game, Egg Hides, Pelts, Tallow, etc., 422 Front St., and 221, 223, 225 and 227 Washington St., San Francisco, Cal.

—THE—
Porteous Improved Scraper
Patented April 3, 1883. Patented April 17, 1883.

Manufactured by G. LISSENDEN.

The attention of the public is called to this Scraper and the many varieties of work of which it is capable, such as Railroad Work, Irrigation Ditches, Levee Building, Leveling Land, Road Making, etc.

This implement will take up and carry its load to any desired distance. It will distribute the dirt evenly or deposit its load in bulk as desired. It will do the work of Scraper, Grader, and Carrier. Thousands of these Scrapers are in use in all parts of the country.

This Scraper is all steel—the only one manufactured in the State.

Price, all Steel, four-horse, $40; Steel two-horse, $31. Address all orders to G. LISSENDEN, Stockton, California.

BEST TREE WASH.

"Greenbank" 98 degrees POWDERED CAUSTIC SODA (tests 99 3-10 per cent) recommended by the highest authorities in the State. Also Common Caustic Soda and Potash, etc., for sale by

T. W. JACKSON & CO.,
Manufacturers' Agents,
No. 5 MARKET ST., - San Francisco.

S. F. MARKET REPORT

Market Review.

SAN FRANCISCO, September 6, 1892.

The week was broken by a holiday on Monday, which is to be followed by another on Friday. The two holidays coming so near together are a disturbing element in the local market, and until passed, operators in farm produce are more or less offish. The cholera scare at the East and abroad, is still being used for all it is worth by bear operators to depress the value of commodities subject to speculative influences. As is usually the case, wheat has been the target, and so far, success appears to have crowned the attacks of the bears. Under a normal condition of affairs, the wheat markets of the world ought to be considerably higher than they are now reported. European authorities estimate that the shortage in the world's wheat crop is about 80,000,000 bushels in comparison with the outturn last year. It is said that since these estimates were put out the European crop is not turning out so large as it was estimated up to two weeks ago, while in the United States the falling off is still more marked, owing to shrunken grain in the northwestern central States. It is now claimed that the crop in this country will not go much, if any, above 475,000,000 bushels against 615,000,000 bushels in 1891. A decrease of 140,000,000 will make itself felt later on in the various demand markets. The crop is not only smaller, but the flour-making quality of the wheat in the central States is very considerably reduced.

The local market holds steady with a firm undertone. The export clearances show a decided increase over the preceding week Farmers offer their wheat sparingly, preferring to hold for better prices later on. Bright, plump barley has had good support, but dark and otherwise poor barley has ruled barely steady. Heavy shipments of the better grades continue to go forward quite freely, with New York and Liverpool the principal buyers. While the very high tariff placed on barley imported into this country is said to have caused Canadian farmers to devote less attention to its cultivation, yet the price on this coast and also at the East is fully 25 per cent less than at the like date in 1891. This decline is in the face of a decreased acreage, compared with that seeded in 1891, of about ten per cent. A larger crop abroad and a strong selling pressure are against American barley at present, but, like wheat, it looks as if the market will do better later on, or as soon as the selling pressure is withdrawn. Oats have barely held their own, owing to heavy receipts and an offish demand. Many consignments were forced on the market to save expense. Corn ruled weak in the absence of an active shipping demand. The crop in the central States will fall considerably below that gathered in last year. Rye has held fairly steady. At the lower priees, it attracts more attention. The large crop abroad is against any shipping demand, except at low prices.

Feedstuff sold at lower figures. The decline in millstuff was due to heavy receipts of bran and screenings from up North. The feeding demand continues to enlarge. Rolled barley has met with a good home and shipping demand. Straw is barely steady. Hay, outside of the more choice grades, has been irregular, with, at times, concessions made to induce buying. While there have been more or less concessions, yet it is claimed that they were not so frequent as has been the case in any week since the middle of July. The consumption demand was free. There were a few shipments to Central America.

Butter has barely held its own the past week. The rapid advance has drawn in more liberal supplies, and at the same time attracted the trade to pickle The latter coming into competition with good to choice fresh butter will naturally prevent an advance in these grades, and cause gilt-edged to barely maintain the advanced figures. If rains hold off, there can be no doubt but the market will do better, owing to high prices in the central States precluding the possibility of sending us supplies of creamery, and without free receipts from the East the surplus on this coast will be exported, as stated, unless early rains set in and natural pasture be provided in the southern and central counties. Cheese has held to steady prices. The eastern market is reported strong. Strictly fresh-laid, selected eggs have met with a strong demand, and caused slightly better prices. Choice eggs were also in good demand, but all below the latter quality was more or less irregular. Bakers have been free purchasers of as is at around 18 cents for eastern.

Garden truck has been more or less irregular. The demand is fair for the season. Onions have held to weak prices. Diseased and otherwise poor potatoes have favored buyers, but choice good keepers have had good support at steady but firm prices. The shipping demand was only fair.

Hop-picking is in full blast. So far as we are able to learn, buyers and sellers are still apart. The latter are confident that better prices will obtain after this crop is gathered. Honey has come in freely, but the market held strong in sympathy with high markets at the East. Fall wool has been disappointing in the smallness of the movement and the low prices current. Livestock did not change very materially. Poultry has been in oversupply, which caused free rejections and irregular prices. Hay product has declined, owing to the cholera scare at the East. Beans have held strong. New-crop Limas are in active demand for shipment to the East. Mustard-seed is coming in quite freely. The market shows continued strength.

About all the new-crop walnuts have been contracted. The market for other new-crop nuts has a strong, healthy appearance, although, it is said, buyers are talking bearish. The foreign crop of Brazil and almonds is reported short.

The fruit market has been in that condition peculiar to the season of the year, except that so far the East has taken green fruit more freely later in the season than ever before, although the cholera scare is said to be causing more indifferent buying at New York. Very choice. firm, green fruit is growing scarce. What is now called choice was a short time ago only considered good. Canners are still in the market for canning varieties, but they are bidding lower prices. The supply of overripe fruit appears to be increasing, which has caused a weaker market and lower prices for off qualities. The mountain tree fruit coming to hand is generally good to choice and commands the highest market prices. Grapes have come in more freely, which has caused a shading in prices. Choice, good-keeping apples are still in light supply. For the more choice there is a quick market. Dried fruit has had strong support in an improved demand from the East. Foreign advices report strong markets for prunes and a better feeling in raisins. These advices naturally strengthen the market in this country. It now looks as if the bulk of dried peaches, prunes and other dried fruit has been bought for shipment to the East, but this is the season of the year when the heaviest purchases are made.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	Sept.	Oct.	Nov.	Dec.	Jan.
Thursday	5s11½d	6s0½d	6s01½d	6s02½d	.... d
Friday	6s00½d	6s01½d	6s02½d	6s03 d	.... d
Saturday	6s00 d	6s01½d	6s02½d	6s03 d	6s03½d
Monday	.....	.....	.....	.....	.....
Tuesday	.....	.....	.....	.....	.....

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market for P. S.	Weather.
Thursday	32s6d	32s9 l	32s6d	Easier.	Fine.
Friday	32s6d	32s9d	32s6d	Steadier.	Wet
Saturday	32s6d	32s9d	32s6d	Steady.	Unsettled.
Monday	.....	.....	.....		
Tuesday	.....	.....	.....		

To-day's cablegram is as follows:

LIVERPOOL, Sept. 6.—Wheat Quiet. California spot lots, 6s ½d; off coast, 3s 3d; just shipped, 32s 9d; nearly due, 32s 3d; cargoes off coast, slow; on passage, rather easier; wheat on passage to continent, 938,000 qrs; wheat and flour on passage to U. K., 2,148,000 qrs; French country markets, quiet; weather in England, cloudy.

Eastern Markets.

The following shows the closing prices of wheat for the past week at

New York.

Day.	Sept.	Oct	Dec.
Thursday	131	133⅜	139
Friday	131½	133½	139
Saturday	....	....	....
Monday	....	....	....
Tuesday	....	....	....

The following is to-day's telegram:

NEW YORK, Sept. 6. Wheat—78c for September; 79¼c for October; and 82⅝c for December.

Chicago.

Day.	Sept.	Oct.	Dec.	May
Thursday	123½	125	128½	....
Friday	123	123¾	128⅛	....
Saturday	121½	122¾	126⅜	136¼
Monday	....	....	....	....
Tuesday	....	....	....	....

The following is to-day's telegram:

CHICAGO, Sept. 6.—Wheat—72⅞c for September; 81⅞c for May; and 76c for December.

San Francisco.

WHEAT.

	Seller '92.	Buyer Sept.	Buyer Oct.	Buyer Dec.	May
Thursday, high st.	131½	131½	....	135	....
" lowest	131⅜	131½	....	134¾	....
Friday, highest	131½	....	....	135½	....
" lowest	131½	....	....	135	....
Saturday, highest	131	....	....	135⅜	139
" lowest	136¾	....	....	134⅞	139
Monday, highest	....	....	....	....	....
" lowest	....	....	....	....	....
Tuesday, highest	....	....	....	....	....
" lowest	....	....	....	....	....

The following are to-day's recorded sales on Call:

Morning Informal.—Wheat, buyer December, 600 tons, $1.35¾; 200, $1.35⅝; 200, $1.33¾ ₩ ctl. Regular Session.—Buyer December, 1100 tons, $1.34; 100, $1.34½ Seller 1892, 100 tons, $1.30½ ₩ ctl. Afternoon.—Buyer December, 2400 tons, $1.34⅜, 200, $1.34½ ₩ ctl.

BARLEY.

	Seller '92.	Buyer Aug.	Buyer Sept.	Buyer Oct.	Buyer Dec
Thursday, highest	88	....	....	....	93⅝
" lowest	88	....	....	....	93
Friday, highest	....	....	....	....	9 ⅜
" lowest	....	....	....	....	92¾
Saturday, highest	87¾	....	....	87⅞	....
" lowest	87½	....	....	87⅞	....
Monday, highest	....	....	....	....	....
" lowest	....	....	....	....	....
Tuesday, highest	....	....	....	....	....
" lowest	....	....	....	....	....

The following are to-day's recorded sales on Call:

Regular Session.—Barley, December, 100 tons, 91⅞c; 100, 91¾c; 100, 9 ⅝c. Seller 1892, new, 200 tons, 86⅝c; 100, 86⅝c; 200, 86⅞c ₩ ctl.

Markets by Telegraph.

Foreign Grain Review.

LONDON, Sept. 5.—The *Mark Lane Express* says: The recent heavy rains seriously interrupted the wheat harvest Oats were benefited, but too late to make an average crop. Old wheat averaged 32s 6d, and new wheat 30s 6d; best flour is still quoted at 33s, but a decline to 30s is not improbable Barley has declined 3d in London and 6d in the Provinces.

Eastern Wool Markets.

NEW YORK, September 2.—The leading wool markets report a quiet demand, but firm prices on all grades. The manufacturers are well supplied, and unless they can get wool at their figures are not inclined to buy. The stocks are larger, but they are in strong hands. Fleeces still lead the market in point of demand. They are the cheapest wool on the market At the present quotations they are firm, and ought to go higher, or else other grades must go lower. Quarter-bloods are still quiet. There is very little doing in Texas wools, but the supply is light and prices are unchanged. Very little business is reported in California wools. A few sales are reported of Montana and Utah wools, but otherwise the Territories have been neglected. There is only a moderate trade in pulled wools. Australian wools are in light demand. The outlook for the next London sales, which will open September 13th, is favorable. The cholera reports have further strengthened the position of carpet wools. Manufacturers are buying ahead of their wants to a larger extent than ever before. The supplies here are light and the holders are very firm in their demands. Higher prices are expected.

NEW YORK, September 4.—The demand here was only moderate; but the East still makes a good showing. All prices retain their former ranges California and kindred unwashed are quoted at 15c to 23c. Sellers policy is to let wool go freely, believing that a prompt, steady reduction of the present ample supplies is bound later on to give the selling side more independence and work up favorable rates for an important bulk of stock that is certainly worth a better average than early sales have disclosed. During the week whenever fractional advances were suggested with any lip stiffness, buyers at once sought sellers, who comprehended that the time is not yet ripe for new figures. Sales at New York, 435,000 pounds of domestic and 131,000 pounds of foreign. Sales at Boston, 2,625,900 pounds domestic and 780,000 pounds foreign.

Dried Fruit.

NEW YORK, September 4.—Canned Fruits are without new features. Evaporated are nominal at 12½c free on board.

Prunes—Better trade feeling is noted. Sixties and nineties, boxed, sold in good blocks at 11½c for October shipment landed.

Raisins—There are no explicit quotations, and considerable bearish sentiment pervades the market, supported by the heavy shipments of Valencia in view. The pool enterprize of establishing uniform qualities is heartily commended. Success in this way will prove a better regulating factor in the market than the adoption of cast-iron prices, for which buyers are in no mood this season.

Apricots are scarce and in demand. Some fancy Moorparks are reported at 19c; other choice, 16@16½c; a car of good grocery trade, 15c; all spot.

Miscellaneous.

NEW YORK, September 4.—Honey—A car of light amber sold at 6¾c, free on board

Lima Beans—Round lots to arrive were placed at $2 10 landed; closing prices, $2@2 55, but no unfavorable reaction is feared

Mustard Seed—Firm with the lateness of the new coast crop. Old yellow, 4¾c; brown, 4½c; wild, 3⅞c. The stock here has not been so light for the past ten ten years; Picklers generally are supplied.

Canary Seed—Is up to 4¾c and tending higher.

Hops—The market sags under light trading on spot; cautious bids and buying attend the present indefinite crop accounts. Prime to best State has declined to 22½@23½c; Pacific, 21½@23c. These rates fully cover future States.

English Hop-Crop Prospects.

The *Mark Lane Express*, Aug. 22d. reports as follows: The reports from the plantations are somewhat conflicting. Down to the middle of the week prospects were improving generally, the hot weather being of great assistance to the plants The heavy storms and rains of the last few days have destroyed much of the vermin that was left, and have no doubt been the means of saving many of the worst grounds from going into a black blight. There is still, however, a great deal of lice in a large number of plantations, and washing has again been done to-day at places. The forward hops are looking well, and the later sorts seem to be coming along satisfactorily in some grounds, though in others they are described as making but little progress toward development. From some parishes there are reports of a decided increase of mold, consequent upon the wet weather, while from others it is stated that mold does not spread. On the whole, we think that the prospects are better than last week, but not by any means bright. The crop, if it comes up to an average in quantity, must, under the circumstances, be one of variable quality, and the relative proportions of healthy, clean hops, indifferent samples, and those more or less diseased, will be determined by the character of the weather from now until picking time. Continental reports are mostly favorable.

General Remarks and Statistics.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending Sept. 5, '92, were as follows:

Flour, qr. sks	139,054	Bran, sks	22,625
Wheat, ctls	389,166	Buckwheat "	.....
Barley, "	93,780	Middlings "	2,770
Rye, "	2 495	Chicory, bbls	220
Oats, "	12,558	Hops, "	27
Corn, "	3,308	Wool, "	1,071
*Butter, "	1,007	Hay, ton	5,036
do bxs	1,180	Straw, "	200
do bbls	97	Wine, gals	264,330
do kgs	779	Brandy, "	600
do tubs	29	Raisins, bxs	1,413
do ½ bxs	87	Honey, cs	196
†Cheese, ctls	807	Peanuts, sks	....
do bxs	10	Walnuts "	....
Eggs, doz	22,140	Almonds "	210
do " Eastern	24,000	Mustard "	3,747
Beans, sks	4,961	Flax "	241
Potatoes, sks	22 019	Popcorn "	....
Onions, "	1,992	Broom corn, bbls	295

*Overl'd, 341 ctls. † Overland, 80 ctls.

Exports by Sea from San Francisco from July 1 to Aug. 31.

	1892-93	1891-92
Wheat, ctls	1,588,453	2,885,445
Flour, bbls	196,538	209,726
Barley, ctls	297,284	142,843

Tonnage Movement.

From reliable advices up to Sept. 4, the following summ tonnage movement is compiled:

	On the way 1892.	On the way 1891.	In port 1892.	In port 1891.
San Francisco	294,028	421,817	*155,473	67,183
San Diego	19,635	27,891	4,540	.....
San Pedro	12,480	5,022	....	} 15,639
Oregon	49,065	59,028	39,856	
Puget Sound	39,323	26,004	.....	
Totals	414,531	539,162	199,869	83,822

*Engaged for wheat, 1892, 44,653; 1891, 62,140.

Cereals.

London *Agricultural Gazette*, Aug. 22d, says: "Last year at this time the wheat crop more especially was very much 'in sight,' from the writer's point of view, all over the best wheat-growing districts of England: now the crop does not fill the eye in sheaf as it did then (so uniformly at least), and it would be an exceptionally bold man, who has had exceptional opportunities of observation, who would, at this juncture, hazard an opinion on the wheat crop on that portion of England lying to the eastward of the chalk hills running from Gloucestershire to Norfolk, and including the most important wheat-growing counties other than Lincolnshire and Yorkshire. The Fen country of Cambridgeshire and Lincolnshire has hitherto been reported upon favorably.

The Hungarian Ministry of Husbandry makes the following estimates in hectoliters of wheat harvests, together with importations which will be needed: Great Britain, 23 000,000 to 25,000,000, imports 56 000,000 to 58,000 000; France, 105 000,000, imports 15 000,000; Germany 34 000,000 to 35,000,000, imports, 5,000,000 to 6 000,000; Italy 40,000,000, imports, 9,000,000 to 12,000,000; Austria 17,000,000 to 18,000,000; imports 8,000 000 to 10,000,000; total harvest 266.500,000 to 270,800,000; total imports, 144 600 000 to 153 000,000. The rye harvest of these countries is estimated at 440,000,000, against 370,000,000. This makes the import requirements of all European importing countries 320,000,000 to 348,000,000 bushels. The requirements of other countries are about 20,000,000 bushels, making the requirements of the world 340,000,000 to 368,000,000 bushels, or an average of 354 000,000 bushels. The export surplus of the United States is 160,000,000 bushels. South America and Australia 20 000,000 bushels, India, Servia Turkey, Persia Egypt, Turkey-Hungary 91,000,000 bushels, leaving 82,000,000 bushels to be supplied by Russia, Roumania and Bulgaria. The estimate of the world's crop, as given by the same authority, makes a total of wheat of 2,127,000,000 bushels, against 2,352,000,000 the previous year. The decrease is 230,000,000 bushels. The world's rye crop estimated at 1,245,000,000 bushels, against 1,047 000 000 bushels last year, an increase of 198,000,000,000 bushels.

The serious injury to the French wheat crop reported last fall was confirmed by the imports of wheat this year, which were the largest on record, exceeding the estimate by several million bushels. The total for the year was 113,242 000 bushels, against 46 164,000 bushels the previous year and 24,876 000 bushels two years ago. Notwithstanding the enormous imports the past year, the bonded stocks of wheat on August 1, was only 1,118,000 bushels, against 6,448,000 bushels the previous year and 2 504,000 bushels two years ago. The crop this year is variously estimated from 276,000,000 to 299,000 000, or say, 285 000,000 bushels for an average, indicating requirements of 50,000,000 to 60,000,000 bushels for the coming year.

Dornbusch estimates the crop of wheat in Europe at 1,154 000,000 bushels, against 1,060,000,000 bushels last year, and 1,320,000,000 bushels two years before. Outside of Europe, the crop of America shows a decrease of 52 000,000 bushels.

The official report of the Russian crop in Russia proper is figured as meaning 600,000,000 bushels of rye, against 539 000,000 last year, and 721 000,000 bushels the previous year. The winter wheat crop is estimated at 52,000,000 bushels, against 71 000,000 bushels last year, and an average of 72 000,000 bushels for the last eight years. The spring wheat crop is estimated at 172,000,000 bushels, against 109,000,000 bushels last year and 134,000,000 bushels in 1890. The trouble with these estimates is that the Russian reports are usually much in excess of what actually turns out, the Russian reports being influenced by desires to report a big crop.

The local wheat market was quiet to-day at steady prices. The better grades of shipping and milling continues to be offered sparingly and to secure a round, straight parcel, buyers have to pay an advance on bids. The offerings are largely of small parcels and of varying grades. It is claimed that higher prices are bid in the country than in this city. Exporters and millers appear to confine their purchases to nearby wants. This season, owing to the milling trust, there is less buying competition for milling wheat.

Bright barley was firm to-day under a fair shipping and home demand. Dark barley and poor grades were barely steady. It is claimed that the sales of barley, so far this season, are fully double what they were during the like time last season. The low prices now ruling have created a larger feeding demand and also free buying for shipping and malting.

Oats were generally easy, although no changes in quotations were reported. There were several consignments which had to be placed to save expenses, and to sell them, concessions were offered Bright, choice grades are not offering very freely, but the large offerings of other grades unfavorably affects them.

Corn was barely steady. The demand was of an offish character. The stock is not large, while the crop promises to be less than it was last year.

Rye was steady at quotations.

Feedstuff.

There was a good demand for groundfeed, but the heavy offerings caused the market to rule in buyers' favor. The demand for rolled and ground barley is steadily enlarging

Hay was fairly firm for the more choice grades, steady for good, but weak for poor. There is a growing belief that the market will soon begin to do better, provided heavy rains do not set in soon. Farmers, it is claimed, have about sold or else warehoused their surplus crop, and when either is an accomplished fact, the market usually strengthens.

Dairy Produce.

The market for butter was reported irregular today. The more choice, gilt-edged is said to be well held; but even with the supply in hand, unless an active demand sets in to clean it up quickly, the quality is apt to deteriorate. Warm and sultry weather to-day causes a better feeling with holders of gilt-edged Some concessions were made to-day in good to choice.

Cheese was steady with a fair demand reported.

Choice, selected fresh-laid eggs moved off freely today with some extra fine stock said to have been placed at an advance on outside quotations. Choice candled eggs and choice packs of eastern were firm. Eggs suitable for bakers and Chinese were unchanged.

Vegetables.

The receipts of eggplants were more liberal to-day, but only the poorer suffered in price. The market for garden truck was essentially unchanged. There was a fair local and outside demand. Green corn was in lighter receipt.

Sweet potatoes met with a fair demand to-day. Receipts were free, but the market held up well.

Potatoes did not show any material change. There was a fair shipping and home demand for the more choice good-keepers, but the oversupply of poorer kinds kept the market easy.

Fruit.

For fresh fruit the market was irregular to-day. Choice and firm good-sized canning fruit was wanted and for which good prices were bid. The general range bid by canners was 1¼@1½ cts. per pound for peaches, 75 cts. to $1 per box for Bartlett pears, 1@1½ cts. per pound for colored plums and 1½@2 cts. for white. For each of the above kinds an advance was paid if the fruit was extra in all respects. Choice fruit was scarce, but poor was in more liberal supply and very hard to sell. The general market was weak Mountain fruit is wanted

Canteloupes sold slightly higher. There was a good outside demand.

Grapes are coming in quite freely. While choice have ready sales, poor are slow even at low prices.

Eastern mail advices received to-day report a very strong foreign market for prunes, with French driers claiming their ability to market the crop in Europe. These advices report that the trade is coming into the market for California dried fruit. They have heretofore held aloof, thinking Pacific coast crop advices were colored. Raisins are showing more strength at home and abroad. We advance the quotations for choice dried apples; all kinds of apricots are quoted higher, as are choice to fancy peaches. It is claimed that buyers are purchasing quite freely in the interior, but their buying is confined largely to the more choice.

Live Stock.

There are conflicting reports regarding rains in Arizona, but judging from reported lighter offerings of bullocks and beef cattle in general from Arizona and the southern part of the State, there must be some foundation to the report of heavy rainfalls. The local market for bullocks, mutton sheep and hogs is steady. The consumption shows signs of increasing.

Miscellaneous.

Poultry was demoralized under receipts and only a fair demand. There are too many small-sized and poor-conditioned fowls coming in. Large, fat fowls are readily placed, but small, and also poor, are hard to sell.

This year's crop of Limas is about all under con-

tract. It is now claimed that 3¼@3¾c f. o. b. is now asked. The stock of old beans is well cleaned up.

Hope were inactive both buyers and sellers being apart. Mail advices received from New York report sales of choice State at 25c.

Both fall and spring wools are slow, with quotations irregular and hard to give correctly.

Hay product was reported weak, but no lower.

Sugar was advanced another ¼c per pound the past week.

General Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

SEPTEMBER 6, 1892.

BEANS AND PEAS		Sonora	1 25 @ 1 41½
Bayo, ctl	2 [illegible] @ 3 00	HOPS.	
Butter	2 50 @ 3 00	1892 Bid	17 @ 19
Pea	2 40 @ 2 65	FLOUR	
Red	2 60 @ 2 70	Extra, City Mills	4 00 @ —
Pink	2 30 @ 2 50	Do Country Mills	4 00 @ —
Small White	2 30 @ 2 50	Superfine	2 60 @ 3 00
Large White	2 20 @ 2 40	NUTS—JOBBING.	
Lima	2 75 @ 3 00	Walnuts, Cal. lb	6½ @ —
Fld Peas, blkeye	1 50 @ 1 70	Do Choice	8½ @ —
Do green	1 50 @ 2 75	Do paper shell	9½ @ —
Do Niles	1 30 @ 1 40	Almonds, stt shl.	11 @ —
Split	4 50 @ 5 50	Paper shell	14 @ —
BUTTER.		Hard Shell	6 @ 7½
Cal. Poor to fair, lb	17 @ —	Brazil	9 @ 10
Do good to choice	23 @ 27	Pecans small	11 @ 13
Do Gilt edged	28 @ 29	Do large	14½@ 16
Do Creamery rolls	25 @ 30	Peanuts	3½ @ 4½
Do do Gilte'ge	— @ 32	Filberts	11 @ —
Eastern, ladle	17 @ 19	Hickory	7 @ 8
Cal. Pickled	21 @ 23½	Chestnuts	11½@ 16
Cal. Keg	20 @ 23	ONIONS	
CHEESE		Silverskin	30 @ 40
Cal. choice cream	9 @ —	POTATOES.	
Do fair to good	7½ @ —	Early Rose, ctl.	40 @ 55
Do gilt edged	— @ 1[illegible]	Peerless	45 @ 65
Do skim	5 @ 6½	Garnet Chilies	50 @ 70
Young America	— @ 11	Burbank Seedlings	45 @ 70
EGGS.		Do do calicos	60 @ 95
Cal. "as is," doz.	17 @ 19	Extra choice sell for more money.	
Do shaky	14 @ 16	POULTRY.	
Do candled	21 @ 25	Hens, doz	5 50 @ 6 50
Do choice	27 @ 30	Roosters, old	5 50 @ 6 50
Do fresh laid	31 @ 32	Do young	4 50 @ 6 00
Do do selected	— @ 34	Broilers, small	2 00 @ 2 75
Eastern "as is"	17 @ 19	Do large	3 00 @ 4 00
Do candled	21 @ 23	Fryers	4 00 @ 4 50
Do selected	24 @ 25	Ducks	4 00 @ 4 50
Outside prices for selected large eggs and inside prices for mixed sizes—small eggs and hard to sell.		do, large	5 00 @ 5 50
FEED		do, extra large	6 00 @ —
Bran, ton	14 50 @16 00	Geese, pair	1 50 @ 1 75
Feedmeal	27 00 @30 00	Goslings	— @ —
Gr'd Barley	19 00 @20 50	Turkeys, Gobl'r.	19 @ 21
Middlings	18 50 @20 00	Turkeys, Hens	17 @ 19
Oil Cake Meal	— @25 00	All kinds of Poultry if poor or small, sell at less than quoted; if large and in good condition, they sell for more than quoted.	
Manhattan Food ⅌ ctl.		Manhattan Egg Food ⅌ 100-lb cabinet	8 00
cabinet	— @ 8 00	PROVISIONS.	
HAY.		Cal. Bacon, he'vy, lb	11 @ 11½
Wheat, per ton	8 00 @ —	Medium	12 @ 13
Do choice	— @12 50	Light	13½ @ 14
Wheat and Oats	8 50 @11 00	Lard	8 @ 11
Wild Oats	8 00 @11 00	Cal. Sm'k'd Beef	11½@ —
Cultivated do	7 00 @10 00	Hams, Cal. salt'd	12 @ 13½
Barley	5 00 @ 9 00	do Eastern	13½ @ 15
Alfalfa	7 00 @ 9 00	HIDES.	
Straw, bale	40 @ 55	Alfalfa	— @ —
GRAIN, ETC.		Clover, Red	14 @ 15
Barley, feed, ctl.	77½ @ —	White	20 @ —
Do Choice	85 @ —	Flaxseed	2 00 @ 2 25
Do Brewing	92½ @ —	Hemp	3¾@ 4
Do do Choice	96½ @ —	Mustard, yellow	3½ @ 4
Do do Giltedge	98½ @ —	do Brown	2½ @ —
Do Chevalier	8 [illegible] @ 1 10	WOOL.	
Do do Giltedge	1 15 @ 1 25	SPRING, 1892.	
Buckwheat	— @ —	Humb't & Men'cino	17 @ 21
Corn, White	1 37½ @ 1 40	Sac'to valley	16 @ —
Yellow, large	1 28½ @ 1 31½	S Joaquin valley	11 @ 16
Do small	1 33½ @ 1 35½	Cala'v & F'th'l.	16 @ 21
Oats, milling	1 47½ @ —	Oregon Eastern.	12½@ 19
Feed, Choice	1 37½ @ —	do valley	18 @ 23
Do good	1 35 @ —	Bo'n Coast, def.	10 @ 12
Do fair	1 27½ @ —	Nevada (State)	15 @ 19
Do Common	1 15 @ 1 25	FALL, 1892.	
Surprise	1 55 @ —	San Joaq'n, plain	6 @ 8½
Black Cal	1 10 @ 1 26½	do mountain	9 @ 11
Do Oregon	— @ —	do lamb	8 @ 9
Gray	— @ —	HONEY.—1892 CROP.	
Rye	1 12½ @ 1 15	White Comb, 2-lb	9½@ 12½
Wheat, milling.		do do 1-lb frame	11½ @ 14½
Gilt edged	1 41½ @ —	White extract'd	7 @ —
Do Choice	1 38½ @ —	Amber do	6½ @ 7
Do fair to good	1 36½ @ —	Beeswax, lb	25 @ 28
Shipping, cho'ce	1 35½ @ —		
Do good	1 30 @ —		
Do fair	1 27½ @ —		
Common	1 25 @ —		

Dried Fruits.

The quotations given below are for average prices received by commission merchants for consignments by growers. Something very fancy fetches an advance on the highest quotations while poor sells slightly below the lowest quotations. Prices, unless otherwise specified, are for fruit in sacks; add for 50-lb. boxes ⅛c per lb., and for 25-lb boxes, ¼c to 1c per lb.

APPLES—1892.		Do do fancy	13 @—
Sun-dried, ¼'s, com'on	2½@ 3½	Sun-dr, pl'd, prime, bl.	-- @—
Do do prime	3½@ 4	Do do choice	— @—
Do do choice	4 @ 4½	Do do fancy	— @—
Do sliced, common	3½@ 4	Evap, peeled, in boxes, choice	17½@—
Do do prime	4 @ 4½	Do do fancy	20 @—
Do do choice	4½@ 5½	PEARS—1892.	
Evap bl., ring, 50-lb bx	7½@ 8½	Sun-dried, quarters	— @ 3
Fancy highest.		Do sliced	4 @ 5
APRICOTS—1892.		Evap, sliced, in boxes.	7 @ 8
Sun-dried, unbl. com.	4½@ 5½	Do ring do	9 @10
Do do prime	6½@ 8	PLUMS 1892	
Do do choice	9 @10	Pitted, sun-dried	8 @ 9
Do bleached, prime	12½@—	Do evap. boxes, choice.	— @—
Do do choice	13½@—	Do do do fancy	— @—
Do do fancy	14½@—	Unpitted	4 @ 5
Evap. choice, in boxes.	15 @—	PRUNES—1892.	
Do fancy, do	15½@—	Cal. French, ungraded	7½@ 8
FIGS—1892.		Do graded, 60 to 100	8½@ 9
Sun-dried, black	4½@ 5	Do do 40 to 60	11 @12
Do white	3 @—	Fancy sell for more money.	
Do do washed	— @	RAISINS—1892.	
Do do fancy	— @—	London Layers, cluster, ⅌ bx	1 90 @2 00
Do do pressed	— @—	Do choicest do	1 60 @1 70
Smyrna boxes	— @—	Do prime, ⅌ bx	1 40 @1 45
Do sacks	— @—	Loose Muscatels, common, ⅌ bx	— @ —
GRAPES—1892.		Do choice, do	1 25 @1 30
Sun-dried, stemless	3½@	Do fancy, do	— @ —
Do unstemmed	1½ @ 2	Unstemmed Muscatels, in sacks, ⅌ lb	4 @ 5½
NECTARINES—1892.		Stemmed do do	— @ —
Red, sun-dried	8 @ 9	Seedless do do	— @ —
Do Evap., in boxes	— @—	Do do ⅌ 20-lb bx	— @ —
White, unpitted	8½@11	Sultanas, unbl. bxs	— @ —
Do evaporated	— @—	Do bleached, in bxs	— @ —
PEACHES—1892.		Halves, quarters and eighths 25, 50 and 75 cents higher respectively than whole boxes.	
Sun-dried, unpeeled, common, bleached	8 @—		
Do do prime, do	10 @—		
Do do choice, do	12 @—		
Do do fancy	12½@—		
Evap, unpe'l'd, choice	12½@—		

Live Stock.

BEEF.		MUTTON.	
Stall fed	5½@—	Wethers	6½@—
Grass fed, extra	5½@—	Ewes	6 @—
First quality	5 @—	Do Spring	8 @—
Second quality	4½ @—	HOGS.	
Third quality	3½ @—	Light, ⅌ lb, cents	5¾@—
Bulls and thin Cows	2 @—	Medium	5¾@—
VEAL.		Heavy	5 @—
Range, heavy	4½@—	Soft	4¾@—
Do light	5½ @—	Feeders	3¾@—
Dairy	6 @—	Stock Hogs	3½@—

Grain and Wool Bags.

Calcutta, spot	5⅛@	5⅜
Wool Bags	36 @	38

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

SEPTEMBER 6, 1892.

Limes, Mex	5 00 @ 6 00	Fruit in bulk to canners: Pears, 1½@2; Plums, white, 1½@2; colored, 1@1½; Peaches, freestone and clings, 1½@2½. Extra choice fruit for special purposes sells at an advance on outside quotations.	
Do Cal	-- @ —	Beets, sk	— @ 75
Lemons, box	1 00 @ 6 00	Carrots, sk	40 @ —
Do Sicily choice	7 50 @ 9 00	Okra, dry, lb	15 @ —
Strawberries, per chest—		Parsnips, doz	— @ 1 25
Longworth	6 00 @ 8 00	Do green box	30 @ 55
Sharpless	4 00 @ 6 00	Peppers, drv, lb	10 @ —
Peaches, box	40 @ 75	Do grn Chili, bx	20 @ 40
Do Mountain	70 @ 85	Do do Bells	20 @ 40
Bl'kberries ⅌ ch	3 00 @ 5 00	Turnips, ctl	75 @ —
Figs, blk box	50 @ 75	Cabbage, 100 lbs	45 @ 55
Do White	30 @ 50	Garlic, lb	— @ —
Apples	40 @ 90	Squash, Sum, bx	40 @ 65
Do Gravenstein	75 @ 1 00	Tomatoes, box	20 @ 40
Crabapples	50 @ 75	Do River lrg bx	15 @ 25
Canteloupes, pr crate	50 @ 1 00	String Beans, sk	— @ —
Melons, pr 100	5 00 @10 00	Cucumbers, box	20 @ 40
Nutmegs, ⅌ box	35 @ 55	Mushrooms	— @ —
Grapes, pr bx—		Egg Plant, bx	20 @ 50
Do White	40 @ 60	Green Corn, box	40 @ 1 00
Do Black	35 @ 65	Marfat Squash, ⅌ ton	8 00 @10 00
Do Muscats	40 @ 75		
Do Tokays	65 @ 1 00		
Prunes, Hung'n	35 @ 50		
Do German	40 @ 60		
Plums, ⅌ box	40 @ 65		
Pears, Bartlett	50 @ 75		
Do do choice	1 00 @ —		

Twine and Baling Rope.

BALE ROPE.		TWINE.	
Sisal, 3 yarns	9	Pure Manila Hop, in balls, tarred	11½
Do, 2 yarns, light	9½	Do, Grape-Vine, in balls or coils	12
Duplex, 3 yarns	9	Do, Spring	16
Manila, 3 yarns, heavy	10½	Duplex Hop, in balls, tar'd	9½
Pure Manila, 3 and 4 yrns	12	Do, Grape Vine, in balls or coils	10½
Do, 2 yarns, light	12		

Wine.

Red and White Wine from bay counties, vintage of 1891, per gal. in cellar lots	10 @	15

Auction Sales of California Fruits.

At New York.

Sept. 1.—Four carloads: Cling Peaches, 50c@$1.30; Late Crawford Peaches, 40c@$1.05; Yellow Peaches, 55@85c; Salway Peaches, $1; Orange Cling Peaches, 45@85c; Susquehanna Peaches, 70@80c; McDevitt Cling Peaches, 75c@$1; Mitchell's Peaches, 85c; Bartlett Pears, $1.15@2.30; Plums, 50c; Gros Prunes, $1.50@1.65; Grapes, 30@90c; Tokay Grapes, single crates, $1.90@2.25; Muscat Grapes, single crates, 35c; Black Hamburg Grapes, single crates 65c; White Grapes, single crates, 50c; one car of Beurre Clairgeau Pears arriving in very bad order sold for 25@70c.

Sept. 1.—Three carloads: Golden Cling Peaches, 90c; Orange Cling Peaches, 75c; McDevitt Cling Peaches, 65c; Muir Peaches, 60c; Susquehanna Peaches, 75@90c; Tokay Grapes, half-crates, $1.75@2; Muscat Grapes, half-crates, 65c. Some fruit in bad order sold for less.

Sept. 2.—Three carloads: Salway Peaches, 75c; Cling Peaches, 60c@$1.35; Susquehanna Peaches, 60c@$1.35; Late Crawford Peaches, 75c@$1.25; Yellow Peaches, 40c@$1.20; Bartlett Pears, $1.25@3.10; Gros Prunes, $2 10@2.60; German Prunes, 60c@$2.10; Rose de Peru Grapes, single crates, 50c@$1.40; Muscat Grapes, half-crates, $1.30@1.40; overripe, 60@75c; Tokay Grapes, half-crates, $1 40@3; Malvoisie Grapes, half-crates, 60c; Japan Plums, $2@2.50; Figs, $2 95; Nectarines, 90c.

Sept. 2.—Four carloads: Bartlett Pears $2.25@2.75; Beurre Clairgeau Pears, $1.30; Beurre Hardy Pears, $1.50; German Prunes, $1.10@1.30; Silver Prunes, $1; Gros Prunes, $1@1.70; Fellenberg Prunes, 95c; Japan Plums, $1 45; Egg Plums, 80c@$1; Tokay Grapes, half-crates, $1.35@3; Malaga Grapes, full crates, $2 40; Muscat Grapes, half-crates, 70c; Orange Cling Peaches, 70@85c; Golden Cling Peaches, $1; Centennial Peaches, 85c; Susquehanna Peaches, 85c; Late Crawford Peaches, 85c. Some fruit which arrived in bad order sold at less prices.

Sept. 3.—Two carloads: Susquehanna Peaches, $1.10; Cling Peaches, 90c@$1.05; Late Crawford Peaches, 85c; Salway Peaches, $1; Bartlett Pears, $1.30@2.10; Gros Prunes, $1 70@1.85; Tokay Grapes, single crates, $2 55; Muscat Grapes, single crates, $1@1 10; Black Hamburg Grapes, single crates, 55c; Rose de Peru Grapes, single crates, 60@75c; White Grapes, 25c; Peaches, 85c; Bradshaw Plums, 95c.

September 5.—Two carloads: Bartlett Pears, $1 75@2.70; some overripe, 80c@$1.50; Congress Pears, $1.75; fancy, $3.50; Beurre Hardy Pears, $1 10; Howell, fair condition, $1.25@1.60; overripe, 55c@$1; Gros Prunes $1.15@1.35; Fellenberg Prunes, 95c@$1 05; Silver Prunes, 95c; Japan Plums, 95c; Egg Plums, 60@90c.

At Chicago.

Sept. 1.—Nine carloads: Bartlett Pears, $1.35@2 45; overripe, 90c@$1 10; Muscat Grapes, single crates, 90c@$1.75; double crates, $1 90@2.15; Peaches, $1.20@1.50; very bad order, 30@90c; Tokay Grapes, $1 30@3.35; Onondaga Pears, $1.75; Flemish Beauties' Pears, $1.25; Beurre Clairgeau Pears, $1.75@2; Grapes, 50c@$1.05 Prunes, $1.10@1 45; Nectarines, $1.30; Duchess Pears $1.65, Beurre Hardy Pears, $1.55@2; Kelsey Japan Plums, $1.30; Fellenberg Prunes, $1.15; Seckel Pears, $1.40.

Sept. 1.—Two carloads: Bartlett Pears, $1.65@2.25; Flemish Beauty Pears, $1.40; Beurre Hardy Pears, $1.65; Gros Prunes, $1 10; Egg Plums, $1.15; Peaches, 65c.

Sept. 2.—Ten carloads: Ickworth Plums, 80c; Fellenberg Prunes. 85c@$1 05; Quinces, $1.25; Howell Pears, $1 60@1.95; Beurre Hardy Pears, $1 35@1 65; Beurre Clairgeau Pears, $1.65@1.75; Duchess Pears, $1.40@1.60; Onondaga Pears, $1 65; Columbia Plums, 85c; Egg Plums, 85c@$1 20; Silver Prunes, 80c; Damsons, 70c; Vicar Pears, $1 25; Diel Pears, $1 25; Bartlett Pears, $1.70@2.35; Peaches, 80c@1.40; Nectarines, 95c; Grapes, 80c@$1.05; Muir Peaches, bad order, 40@50c; Crawford Peaches, bad order, 70c@$1.10; Cling Peaches, bad order, 60c@$1; German Prunes, $1.15@1.35; Hungarian Prunes, $1.50@1 65; Muscat Grapes, single crates, $1.10@1.30; Tokay Grapes, single crates, $1.50@1.95; Rose de Peru Grapes, single crates, 60@80c; Malvoisie Grapes, single crates, 90c@1.40.

Sept. 2.—Four carloads: McDevitt Cling Peaches, $1.35; Wheatland Peaches, $1.35; Day's Cling Peaches, $1.45; Susquehanna Peaches, $1.20@1.40; Orange Cling Peaches, 85c@$1.20; Crawford Peaches, $1@1.40; Gros Prunes, $1.25; Tokay Grapes, half-crates, $1.20@1.75; Muscat Grapes, half-crates, 55c@$1; Red Nectarines, 80@90c; Bartlett Pears, $1.90@2.10; some overripe, $1.15; Japan Plums, 90c.

Sept. 3.—Five carloads: Bartlett Pears, $1.50@2 40; half boxes Bartlett Pears, 85c@$1.15; Grapes, 60@1 25; Fellenberg Prunes, $1.05; Beurre Hardy Pears, $1.40@1.50; Beurre Clairgeau Pears, $1 60; Howell Pears, $1 80@2; Japan Plums, $1.10; Ickworth Plums, $1.10; Peaches, 85c@$1.40; Prunes, $1@1.25; Gros Prunes, $1 50; Susquehanna Peaches, $1.50; Cling Peaches, 90c@$1.15; Rose de Peru Grapes, single crates, 55c; Muscat Grapes, single crates, 75c@$2.30; Tokay Grapes, single crates $1 55@3; Nectarines, $1 15

Sept. 3.—Three carloads: Bartlett Pears, $2 15@2.25; Beurre Clairgeau Pears, $1.50; Beurre Diel Pears, $1 40; Duchess Pears, $1 45; Beurre Hardy Pears, $1.40; Lemon Cling Peaches, $1.10; Susquehanna Peaches, $1:30@1.40; Orange Cling Peaches, $1.20@1.25; Late Crawford Peaches, $1.35@1.40; McDevitt Cling Peaches, $1.15; Crawford Cling Peaches, $1 35; White Cling Peaches, 85c; McDevitt Cling Peaches, 75c; Tokay Grapes, half-crates, $1.25@1 40; Muscat Grapes, half-crates, 95c; Fontainebleau Grapes, half-crates, 75c; Rose de Peru Grapes, full crates, $1 30; Malaga Grapes, full crates, $2.40; Red Nectarines, 85c: Gros Prunes, $1 20; Fellenberg Prunes, $1 55: French Prunes, 95c; German Prunes, 80c@$1; Bradshaw Plums, $1; Golden Drop Plums, 90c; Japan Plums, 90@95c. Some pears and grapes overripe and small sold for less

September 5.—Nine carloads: Susquehanna Peaches, $1.40@1 50; Golden Clingstone Peaches, $1 20 Early Crawford Peaches, $1.35; Late Crawford Peaches, $1.15@1.40; Strawberry Peaches, $1.20; Lemon Cling Peaches, $1.15; Orange Cling Peaches, $.65@1 20; Yellow Cling Peaches, 70c@ 1.35; Bartlett Pears, $1.75@2.25; Congress Pears, $1.60, Beurre Hardy Pears, $1.60; Beurre Clairgeau Pears, $1.55; Howell Pears, $1.85; Duchess Pears, $1.55; Red Nectarines, 80c Malaga Grapes, full crates, $2.20; Tokay Grapes, full crates. $2.70; half crates, $1 30@1.65; some poor, 90c; Muscat Grapes, full crates, $2.20; half crates, 55@90c; Fontainebleau Grapes, half crates, 65c: Gros Prunes, $1.15@1.45; German Prunes, 90c@$1.20; Silver Prunes, 90c@$1.15; Egg Plums, $1.15@1.20; Golden Drop Plums 90c; Japan Plums, 70c@$1.

September 5.—Nine carloads: Bartlett Pears, $1 40@2.20; Susquehanna Peaches, $1.20; Cling Peaches, 75c; Malaga Grapes, single crates, 85c@$1.25; poor condition, 35@80c; Beurre Hardy Pears, $1 50@1 65, Beurre Clairgeau Pears, $1.25@1.70; Fellenberg Prunes, 80c@$1 30; Columbia Plums, 85c; Egg Plums, 70c@$1.10; Gros Prunes, $1.22 Silver Prunes, 40c, Peaches, 70c@$1 45; Tokay Grapes, single crates, $1.20@1.70; double crates, $2 40; Muscat Grapes, single crates, 65@$1 55; double crates, $2 20; Pears, $1 30@1 65; Prunes. 45@$1.58; Nectarines, $1.

At Minneapolis.

Sept. 1.—Two carloads: Bartlett Pears, $1.05@2; Plums, $1. 1.60@1.75; Beurre Hardy Pears, $1.50; Peaches, $1.85.

Sept. 2.—Two carloads: Tokay Grapes, small crates, $2 15@2.30; Muscat Grapes, single crates, $1.10@1 40; Rose de Peru, single crates, $1.15@1.20; Peaches, $1.50@1 60; Pears. $1.05@2 30; Plums, 90c@.1.90. Gross sales, two cars, $2177.

Sept. 3.—Two carloads: Pears, $1.40@1.90; Peaches, $1@1.55; Plums, 65c@$2; Muscat Grapes, single crates, $1.05; Rose de Peru Grapes, single crates, $1.05

September 5.—Three carloads: Late Crawford Peaches, $1 35; Mary's Choice Peaches, $1 25; Susquehanna Peaches, $1 35; Taylor Cling Peaches, $1 15@1 30; Orange Cling Peaches, $1.15, Gros Prunes, $1.70@1.75; Silver Prunes, 70c; Kelsey Japan Plums, $1@1.55; Golden Drop Plums, 75c; Bartlett Pears, $1.65@1.85.

At Boston.

Sept. 1.—Three carloads: Gros Prunes, $1.25@1.40; Hungarian Prunes, $1.25; Kelsey Japan Plums, $1 10; Bartlett Pears, $2 75; some overripe, $1.10; Early Crawford Peaches, 95c; Late Crawford Peaches, 80c@$1 25; Orange Cling Peaches, 65c@95c; Lemon Cling Peaches, 90c@95c; Susquehanna Peaches, 95c@$1.15; Wheatland Peaches, $1.15.

Sept. 2.—Two carloads: Bartlett Pears, $2 60; half boxes, $1.50; Late Crawford Peaches, $1.10; Orange Cling Peaches, —; McDevitt Cling Peaches, $1@1 35; White Cling Peaches, 95c; Susquehanna Peaches, $1 15; Hungarian Prunes, $1.20; Gros Prunes, $1.@1.25; Columbia Plums, 90c; Egg Plums, 95c; Fellenberg Plums, $1.20.

At Omaha.

Sept. 1.—Three carloads: Peaches, $1 25@1.40; Pears, $1 25@2; Plums, $1@1.50.

Sept. 3.—One carload: Peaches, $1.25@1 50.

September 5.—Two carloads: Pears, $1.25@1.50 Peaches, $1.25@1.50; Black Grapes, 75c@$1; Muscat Grapes, $1@1.25; Tokay Grapes, $1.50@1.75.

At Montreal.

Sept. 3.—Three carloads: Susquehanna Peaches, $1.25@1.50; Orange Cling Peaches, $1.20@1.30; Crawford Peaches, $1.35@1.55; McDevitt Cling Peaches, $1.30; Edwards' Cling Peaches, $1.30; George's Late Peaches, $1 30; Lemon Cling Peaches, $1.20; Bartlett Pears, $1@1.65; Tokay Grapes. single crates, $3.35; Silver Prunes, $2 10; Gros Prunes, $2.10.

Agricultural Fairs.

State Fairs.

STATE.	PLACE AND SEC'Y.	DATE.
Oregon	Salem, J. T. Gregg	Sept. 12-17
California	Sacramento, Edwin F. Smith	Sept. 5-17
Washington	Spokane	Sept. 19-24
Nevada	Reno, C. H. Stoddard	Sept. 10-14
Western Washington Industrial Exposition	Tacoma	

District Fairs.

NO.	PLACE AND SEC'Y.	DATE.
2	Stockton	Sept. 19-Oct. 1
5	Santa Clara, George H. Bragg	Sept 26-Oct 5
6	Los Angeles	Oct. 3-5
7	Salinas City, J. J. Kelley	Oct. 4-8
9	Rohnerville, G. Uuderwood	Sept. 19-23
10	Yreka, C. S. Smith	Oct. 5-8
11	Sierraville, Fred Blinman	Oct, 3-7
12	Lakeport, H. A. McCraney	Sept. 27, Oct. 1
14	Santa Cruz, Oscar L. Gordon	Oct. 10-15
15	Bakersfield. J. J. Kelly	Oct. 11-16
16	San Luis Obispo, J. H. Barrett,	Sept 27-Oct 1
18	Independence, C. W. Craig	Sept. 27-30
20	Auburn, F. D. Adams	Aug. 30-Sept. 3
21	Fresno, J. M. Reuck	Sept. 26-Oct. 1
22	Escondido, G. M. Dannals	Sept. 21-24
26	Ione, C. T. La Grave	Sept. 27-30
27	Redding, H. R. Hodson	
28	San Bernardino	
32	Santa Ana, W. A. Beckett	Oct 3-7
33	Hollister, A. D. Shaw	Oct. 11-15
34	Susanville, C. E. Emerson	Sept. 3-7
35	Merced	
36	Vallejo	Oct. 4-8
37	Lompoc, W. I. Nichols	Sept. 20-23
38	Modesto	Sept. 28-Oct. 1

IN a lecture on fire prevention, Prof. Goodman again called attention to the value of wooden joists for building purposes, as compared with iron and steel. He explained that the two latter materials lose their strength at a not very high temperature, whereas wood will sustain a heavy strain for a much longer period when exposed to great heat.

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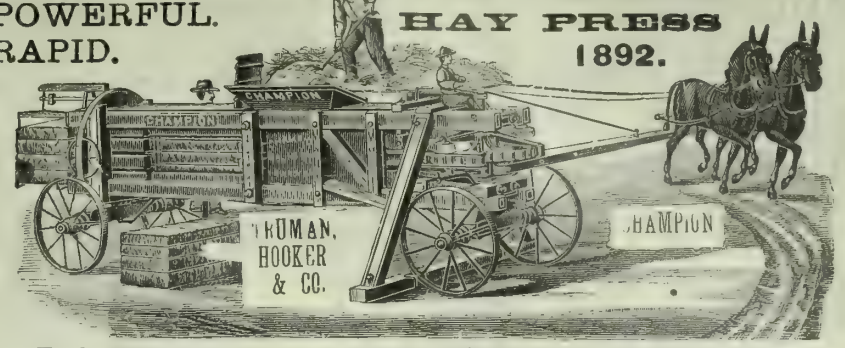

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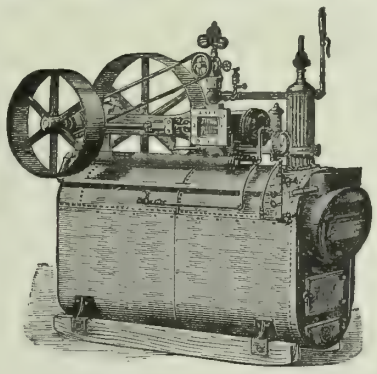

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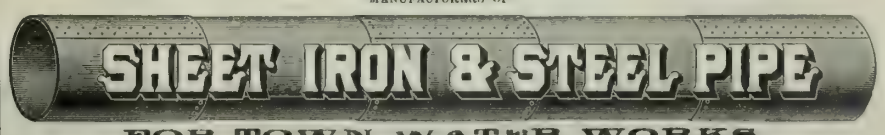

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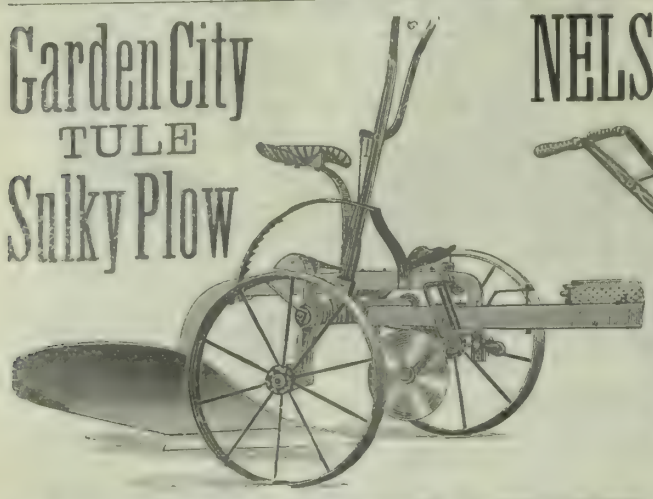

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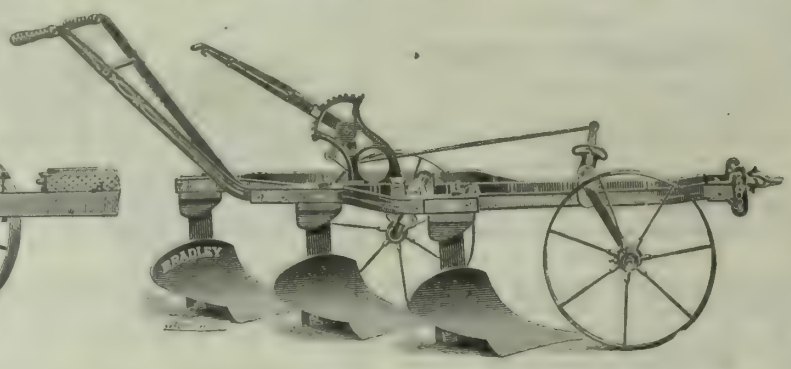

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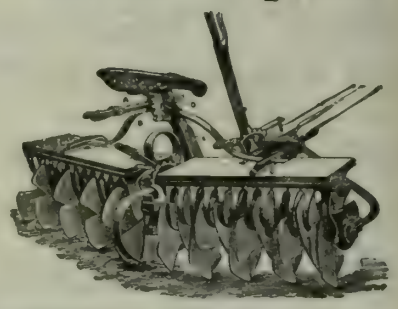

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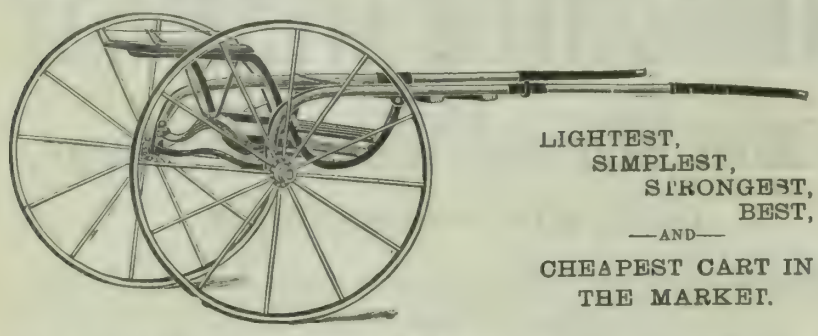

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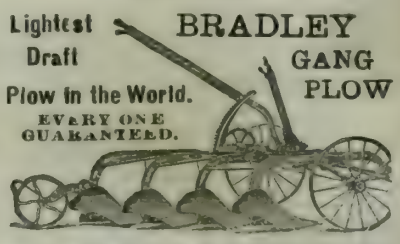

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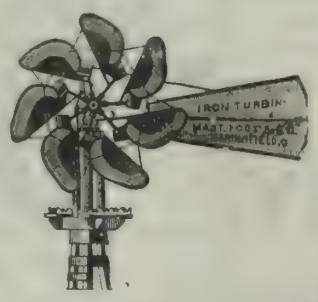

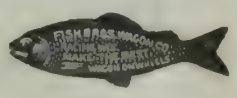

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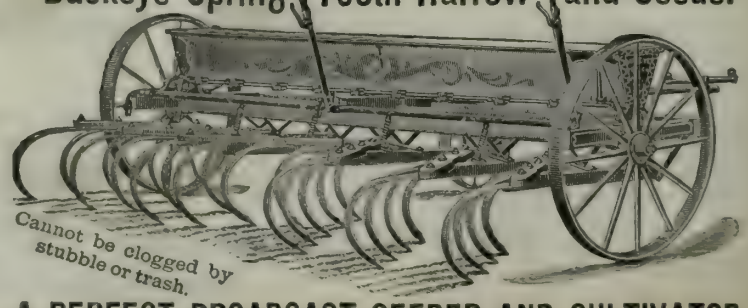


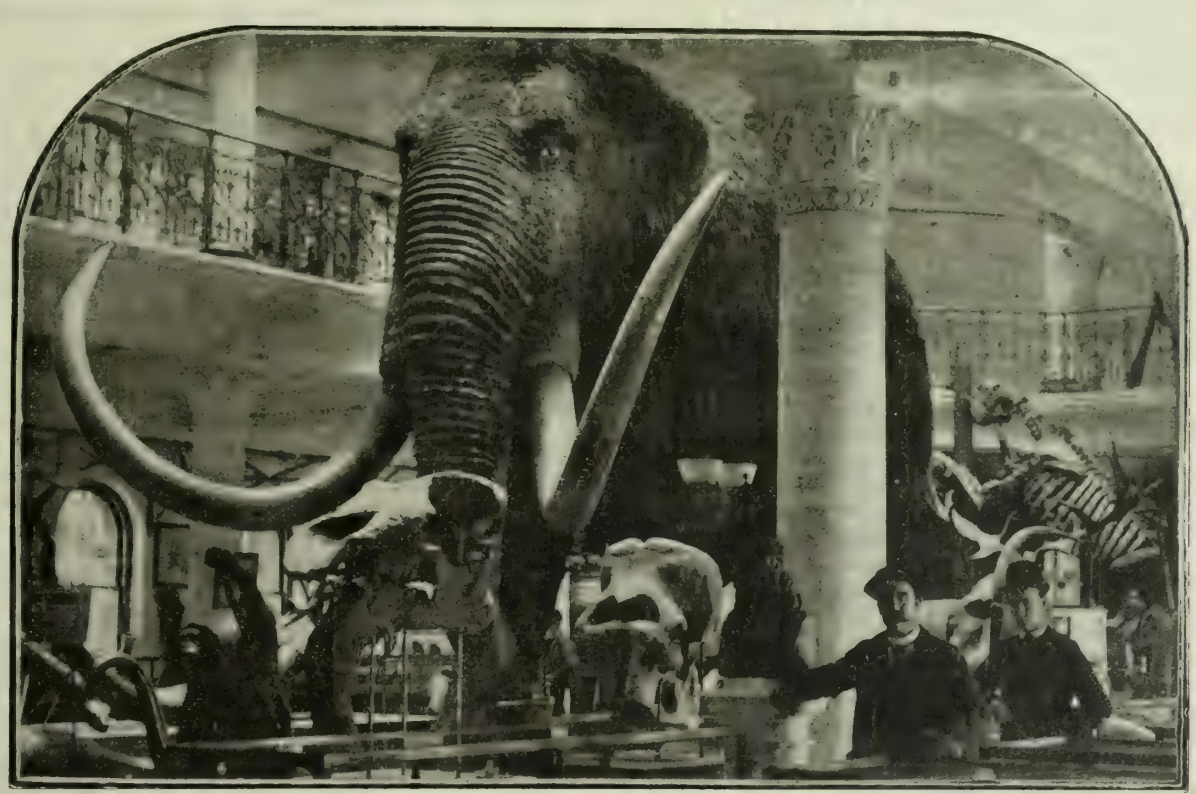
A PERFECT BROADCAST SEEDER AND CULTIVATOR

PACIFIC RURAL PRESS

Vol. XLIV. No. 12. SAN FRANCISCO, SATURDAY, SEPTEMBER 17, 1892. THE DEWEY PUBLISHING CO Office, 220 Market St.

Giant Forms of Extinct Animal Life.

Mammoth remains are among the very earliest forms of extinct animal life which attracted the attention of observers of our earth and its natural products. The whole continent of Europe from France and England to the Ural mountains, and from Sicily to northern Russia, is strewn with mammoth bones in its alluvial and post pliocene deposits. Research has also shown the mammoth in India, Persia, Siam, all northern Siberia, China and Japan. In both the continents of Europe and Asia these remains are found to be more sparsely distributed in the southern lands and to abound in vast numbers on the northern limit, showing thus a strange disagreement in distribution with the elephant of the present day, which is confined, in its wild state, to the tropical portions of Africa, and to the equally hot countries of India, Sumatra and Borneo. All the northern shore of Siberia, particularly in the deltas of the Lena and the Yenessei rivers and the islands lying off these coasts, is crowded thick with the leg bones, tusks and teeth of these extinct animals. In some places the continued action of sea waves and river freshets have piled these bones together in quantities so vast that their number and volume is something incredible. It is plain that the mammoth was once an inhabitant of north temperate and frigid zones; now its descendants, reduced in numbers and degenerate in size, inhabit the tropics. More than a hundred years ago, not only their ivory, but their carcasses, were known to exist in Siberia, imbedded in solid ice. The first discovery of such remains was six degrees north of the Arctic circle, where the body, largely imbedded in ice, was still standing erect, and was almost perfect. The skin remained in place and the hair and fur were still attached in spots.



THE MAMMOTH—A RESTORATION IN THE ACADEMY OF SCIENCES MUSEUM.

The most celebrated discovery was at the mouth of the river Lena in 1799, when a fisherman found a complete body of a mammoth in the ice. The nomadic tribes had been feeding their dogs on the flesh. The skeleton, hide, etc., were carried 7000 miles to St. Petersburg and placed in the museum of the Imperial Academy of Sciences. This is the famous Siberian hairy mammoth, and stands unique in the history of fossil remains from the fact of the preservation of the soft parts of the animal—its flesh and sinews—in connection with the bones.

In the museum of the Academy of Sciences of this city is a "restoration" of this mammoth, made by Prof. Henry A. Ward, of Rochester, N. Y. The height is 16 feet, and length, including forward curve of tusks, 26 feet. The engraving on this page is from a photograph made in the Academy of Sciences museum on Market street. As may be imagined, this mammoth is the central figure in the collection exhibited in the museum-room.

A LARGE colony of disappointed Oklahoma homeseekers have left for Central America.

Bear Pressure on Raisins.

New York mail advices continue to note a strong bear pressure on California raisins, and, so far, with some degree of success. The bears' success is not in bringing about lower prices for the 1892 pack, but in keeping the trade from buying freely. Their chief stock in trade is that leading raisin-growers in this State had the audacity to form a combination for protection against the rapacity of Eastern speculators. The raisin combine will most unquestionably result to the advantage of those engaged in the industry, by keeping the market from going below profitable prices, and, at the same time, in establishing more uniform and better grades of raisins. With the combine working in harmony, it will be impossible for bear operators and also speculators to sell at low prices for future delivery which they could not control—and it is these sales which break the market for actual good.

The strong fight waged against the raisin combine may not make the combination a pronounced success this year, but the fact that growers can and will operate more in common insures success in 1893. The bears have been aided this year by the cholera scare in Europe sending to the United States supplies which otherwise would have been marketed in Europe. There arrived, in this month, at New York, the Alsatia from Denia with 40,000 boxes of raisins, while there are afloat and to arrive within the next 30 days about 85,000 boxes of Ondara and Valencia raisins. That the vessels fetching the raisins will come under the quarantine regulations is fully admitted, but whether the more rigorous precautionary measures will be adopted is an open question, owing to the cholera not having reached Spain. But if the cargoes are fumigated and steam admitted to the vessels' hold up to and over 200 degrees, there cannot be the least doubt but the raisins will be made more or less unmerchantable. Possibly the rigorous quarantine measures which have been adopted by New York officials will deter shipments of raisins, prunes and dates from European ports to this country, in which event California raisins and prunes will have a more open market.

Subirrigation and Underflow.

One of our exchanges takes considerable pains to correct a contributor who seems to have stated that much California land was subirrigated. It states correctly that subirrigation, as arranged by human contrivances, has proved impracticable and has been abandoned because of the great cost and for other reasons. We apprehend, however, that the contributor had no reference to the sub-earth distribution of water by pipes, but merely intended to state that much land does not need surface irrigation because subirrigated. Such a statement is correct, for the term "subirrigated" has, during the last few years, come to mean in this State land in which the water-level has been raised by seepage or percolation from open ditches on higher lines until there is on lower levels a permanent supply of subterranean water near enough to the surface to furnish to trees and vines all the moisture they need. Such lands are what we now call subirrigated and they are irrigated by underflow; by the natural disposition of water to run down hill among the particles of a loose subsoil as well as upon a surface decline. In some parts of the State, notably in Fresno county, perhaps, such lands comprise a large acreage, and thus the area of land made fruitful by irrigation is much greater than that upon which water is actually conducted.

The term subirrigated is not a good one, perhaps, because it implies the subterranean distribution of water by human agency, while, as a matter of fact, the water has escaped from man's controland has gone off on its own enterprises. If the subterranean distribution should be found feasible by art of man then subirrigation must be the term to describe it. In such a case we may have to use the term "underflowed," or something of that kind, to describe land moistened by natural flow from higher levels, even though the water be brought upon those levels by art of man.

AN ENSILAGE CORN HARVESTER.—Our dairy readers who are growing corn for the silo may be interested in a description which we find in an eastern exchange of a machine for harvesting ensilage either from hills or drills. The corn was 11 feet high, the drills three feet apart, and it cut and loaded on a wagon-frame over 1000 pounds in 30 seconds by the watch, using one man and a boy to drive. The writer says the machine was hinged to a long frame, hung low on iron loops attached to the axles of wagon-wheels, and was drawn by a light but spirited team. The uniformity of the cut, the clever manner in which the revolving wooden fans laid the stalks straight on to the wagon-frame, was really astonishing. The weight of the machine is not more than 300 pounds, and it is made of wrought-steel. The cutting discs are made from the finest crescent-steel, and are very strong, being 5-16 inch thick. The machine is adjustable as to cut, and can be set so as to leave the stubs high or low in the ground.

PACIFIC RURAL PRESS.

By The Dewey Publishing Co.

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Our latest forms go to press Wednesday evening.

ALFRED HOLMAN.....General Manager

San Francisco, September 17, 1892.

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[NEW THIS ISSUE.]

Buggies, Carriages, Etc.—Deere Implement Co.
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Fruit Trees—J. S. Collins & Sons, Moorestown, N. J.

☞ *See Advertising Columns.*

The Week.

The cholera threatening our eastern coast is still the chief topic of conversation, which is full of dread and apprehension. Upon the following page the general situation at the East is described. Just as we go to press, telegrams report the determination of five cases in New York City during the last week, the detection having been made by microscopic recognition of the spirillum or germ. Whether secondary cases will result, and the disease thus get a foothold, is now the occasion of great anxiety. Even if the infection is held back by the quarantine in the lower bay, it may spread from the germs shown to exist in the city.

While the general danger is the engrossing theme, popular sympathy will freely go out to the head of the nation as he stands under the shadow of a crushing blow which may possibly fall upon him. Mrs. Harrison is so ill that her life is almost despaired of. She is at a resort in northern New York, and too ill for transfer to other quarters. The prayers of the nation will be that this life be spared.

Eastern and Foreign Apple Crop.

Recent advices confirm earlier reports that the apple crop east of the Rocky mountains is short, and it is further stated that the crop in Canada will hardly turn out 50 per cent of an average of the past five years. The crop will not only be short in quantity, but poor in quality. European mail advices report a lighter crop of apples than had been estimated. In England the crop will be short and poor in quality. In France and Belgium a medium crop is expected. In Denmark and Holland it will be under an average, and in Germany it will be light in quantity and poor in quality. According to the best authorities the European crops, including that of England, will not be much, if any, more than one-half of an average, and the quality will not be of the best. The green apples exported from the United States and Canada go largely to Great Britain, while the dried product goes to Germany, France, Holland and Belgium. While at present the cholera scare will restrict the European demand for apples, with cool, winter weather a call will set in and cause free shipments from this country. Naturally, with a short crop in the central and eastern States, any outside demand will create higher prices and the improved prices will cause a free demand for California dried apples. Already, buyers are scouring this State, Oregon and Washington, and contracting for dried apples. It is claimed that more good to extra choice have been contracted, and at an advance on prices ruling last year, than in any former season.

Garden Design.*

If we are on this far-away coast unfortunate, as some tourists claim, in lack of picturesque ruins, we are surely fortunate in being untrammeled by uncouth tradition or precedent. We have much to learn, it is true, but little to unlearn, and this is a Godsend to our teachers, for with the teaching class it is a common remark that their hardest labor is not in teaching but in eradicating the effects of previous ill-teaching. Nearly all our outdoor life and effort is full of the novel, the untried, the yet-to-be, but in some directions we have attained a degree of mastery over our peculiar conditions and have accomplished something of development. This is true of our commercial agriculture and horticulture; the horticultural arts which minister to the higher interests of mankind, such as beauty culture and home adornment, we are but just beginning upon. We have a perfectly free field so far as local example is concerned, for there is none to speak of; we have unbiased minds, because in our short life full of intense industrial activity, we have not had time to form an opinion, in fact hardly to think a thought; we have a climate which is unrestrictive and wonderfully fostering, not only as to plant growth, but to physical effort; we have a native flora of exceptional richness and variety and all the plant resources of all zones, except the immediate tropics, adapted to our purposes. With such advantages, is it unreasonable to predict for California as fine gardens as the world can show, whenever leisure, taste and wealth shall combine to produce them?

Such considerations always recur to us whenever we behold from afar the contests between Eastern and European writers over matters comprised in the terms landscape-gardening, landscape art, landscape architecture. We are rejoiced to see the hard and effective blows which are struck by the so-called natural school of landscape-gardeners against their opponents of the formal school. For our readers who may not have given any attention to the subject, it may perhaps be wise to risk the explanation that the "natural" in this discussion means the designing of gardens and parks with slopes, tree clumps, shrub clusters and flower masses in ways which suggest the work of nature and conceal the hand of man; the "formal" is just the opposite of this, and some of its leading manifestations are stiff and unnecessary terraces, trees and shrubs in lines of battle, and often shaven and shorn, flowering plants arranged in precise geometrical figures and pinched to absolute uniformity of dimensions, in short, showing forth the hand of man as clearly as a tailor-made garment or a freshly barbered militiaman.

It would seem that there could hardly be any choice between these two extremes of garden design. How any one who loves a tree can enjoy seeing its verdure tortured into a grotesque figure or even an apparition from the solid geometry is more than we can conceive. Nor can we understand how suggestions of the restful, the beautiful, the inspiring, which are so generously imparted by a natural scene, can be drawn from checker-board and pin-wheel garden designs. It seems, however, that there are those who argue even books full against the natural plan of garden-making and in favor of the formal and the precise as more dignified and as displaying more able designing. Concerning a portion of the claim there will be no dispute, for indeed some of the designs are fearfully and wonderfully made.

The distinguished editor of our esteemed contemporary, the London *Garden*, Mr. William Robinson, has, in the handsome book before us, most justly punished a couple of authors who have recently attempted to glorify the formal style of garden design, and to defame those who advocate the natural plan or method. This he does by exposing the fallacy of the claim they make that the architect should design the garden and the horticulturist should be only a workman to set plants on lines marked out by the architect and shear them into such forms as he prescribes, and which, forsooth, he conceives will best comport with the lines he puts upon the brick or stone of the building. These authors apparently give no place in their scheme to a knowledge of plants, nor to taste in harmonizing their hues or outlines to delight the eye of the plant-lover and garden-lover. In fact, they disclaim knowledge of this kind, and seem disposed to rule the horticulturist as well as the landscape gardener out of the undertaking, except as menials to dig, dung and drain, and sculpture foliage into ungraceful, unnatural and abominable forms and shapes.

It is undenied that the true landscape gardening is not yet a science, and that definitions and formulæ cannot yet be furnished to the student. It is admitted that expression has not yet been found for the principles of taste and ideas of method which the true landscape artist employs in his creation, and yet the grand result is immediately apparent to all who have any taste for and appreciation of the beautiful. It is admitted, also, that no fixed rules can be laid down, and that the landscape artist must work out his result with due regard for the factors in each case which comes before him. While this is probably true in the present state of the higher art of gardening, and to a certain extent must always remain so, we think we can clearly see that Mr. Robinson has, in his little work, brought some principles of true landscape work nearer to definition than we have seen them brought before, and that, in demolishing his opponents, he has done the higher service of making his art more comprehensible to any reader of ordinary intelligence and taste. This we count of great importance, and as we are, in California, as we intimated at the outset, clearly in the formative state of mind on this subject, we propose, as occasion offers, to further pursue in our columns the subject as discussed by Mr. Robinson. If, in our contemplated improvement of the environment of our homes, we can all get an idea of what we should aim to accomplish, we have no doubt we shall escape some of the errors which have been made in the past in older countries, and perhaps it is not too much to hope that we can produce results which shall be imitations of no style, but shall be, as they should be, characteristically Californian, though clearly established upon principles of taste which are universal because they are true.

*Garden Design and Architects' Gardens: Two reviews, illustrated, to show by actual examples from British gardens that clipping and aligning trees to make them "harmonize" with architecture is barbarous, needless and inartistic. By W. Robinson, F. L. S., London, John Murray 1892.

The Dairymen's Union.

The Dairymen's Union of California has won its first victory, for it must be counted a victory for a cooperative organization of producers to reach the end of its first year in a good state of health and vigor. The union has had a difficult task to intrude itself successfully upon an established line of city trade and to secure the support of enough producers to enable it to do this. Having accomplished this, it can well take courage for the future. At the annual meeting in this city, on Monday of this week, dairy producers from various parts of the State were present. The reports of the various officers were read, and showed that the experiment of the union had been a success. While no profit had been made during the year, the organization had held its own, and the financial prospect for the coming year could not be brighter.

One of the most important measures discussed at the meeting on Monday was that regarding spurious butter, and the union will cooperate with similar organizations in the eastern States to petition Congress to do all in its power to suppress the traffic. It will also prepare a petition to be presented to the legislature at its next session asking the same relief so far as that body can give it.

The trade in bogus butter is now being pushed in this city and in various bay towns with startling boldness. Various arts are being employed to render the imitation material attractive. It is really being put forward as something more desirable than genuine dairy butter. This is an extent of effrontery which should not deceive the people, and yet the dear people seems to delight in being wheedled and tricked. The problem of how to successfully meet a bogus product when it boldly declares itself superior to the genuine is difficult to determine. Probably the most important thing to do is to strive for the better education of the people on the subject, for we do not suppose any one will knowingly choose a lard and oil compound if they are kept informed of its character, even though the most persistent efforts be made to give it a good name. No doubt our dairy producers, by cooperating with eastern associations, can gain wisdom and strength to meet the evil which depresses them all. It may be possible that our dairymen may in some way join hands with our olive-oil producers in their strife for the recognition of a pure and honest product. They both have an issue with low oils and fats and falsification. Each side would, it seems to us, gain strength by joining hands.

The transactions of the Dairymen's Union may be summarized as follows: W. S. Pierce, E. W. Steele, I. Sortori, L. Yori, L. Tomasini, Warren Dutton, William Hatton, G. W. Burbank, P. Tognazzini and J. Muscio were elected directors for the ensuing year. All were members of the old board except L. Yori and L. Tomasini, who take the places of Dr. G. Burdell and A. Tognazzini, both of whom are now absent in Europe. The board of directors organized by the election of the following officers: President, W. S. Pierce; vice-president, Warren Dutton; treasurer, E. W. Steele; secretary, William Hatton. Executive committee—G. W. Burbank of Tomales, I. Sartori of San Rafael and L. Yori of Santa Barbara.

From an Independent Standpoint.

The break-up of the Transcontinental Traffic Association seems complete. The withdrawal of the Great Northern two weeks ago has been followed by that of the Canadian Pacific and Northern Pacific, leaving only the allied lines of the Union and Southern Pacific to work in harmony. The dispatches predict a general "rate war," but this seems as unlikely as it is really undesirable. Rate wars unsettle values and demoralize business and in the nature of things force the roads into new combinations. Such contests have no sort of correspondence to ordinary healthful competition, but, on the contrary, lead inevitably to its destruction. What is desired is not a fight among the transcontinental roads, but independent, reasonable and persistent competition. It looks as if the day of this sort of thing were dawning at last. And it looks, further, as if the new order of things would go hard with the old lines. All of these lines are vastly overcapitalized. Their stocks or bonds, or whatever combination of these securities stands representative of the properties, aggregate from two to four times the actual value of the several roads. That is, it would be possible at this time to duplicate the older roads, in all details complete, for from one-half to one-fourth of their present capitalization. The excess capitalization stands for extravagance in the original construction, for mistakes in engineering, for mismanagement in building or leasing connecting lines, for the difference in the cost of old-time and modern methods of construction, and very largely for direct and criminal injections of "water." Roads built in extravagant times and by wasteful methods have been and are still managed wastefully. Each of them maintains a large, very expensive and worse than useless organization of official "magnates," whose time and energies are devoted not to the practical and useful business of operating the road, but to speculative and political projects which are profitable only to themselves. It is the necessity of finding dividends for this excess capitalization and of supporting these enormous and illegitimate charges of management that lies back of heavy freight rates and of combinations to maintain them. All the roads have been subject to the same necessities—hence their cordial co-operation in the bad scheme of the Traffic Association.

The real cause of the break-up of the Traffic Association is prospective competition for through freights by the Great Northern, or, as it is called, the "Jim Hill" road. This line, which before the close of the year will be in operation between St. Paul and Puget Sound, is a novelty in the railroad world. It has been built without subsidy, without any sort of "aid," and without any sort of fuss. There have been no construction rings, no costly lobbies at Washington or elsewhere, no raft of high-salaried and useless officials. Mr. Hill has employed the best engineers, and has built the line with the same close business-like, economical attention to details that a prudent business man would give to the construction of a building. He has learned from the mistakes of others, and has avoided much that adds to their charges of operation. The result of all this is that Mr. Hill and his backers have a new and perfectly equipped transcontinental road, shorter by nearly three hundred miles than the Northern Pacific, with easier curves and better grades than any of the other lines, and, with all costs paid, *representing a capitalization less than one-half that of the Northern Pacific and about one-fourth that of the Union Pacific.* This is the situation which causes Mr. Hill to part company with the other transcontinental roads. This is the situation which enables him to say, as he is quoted, that transcontinental freight rates can be reduced one-half and still leave a handsome margin of profit.

What will be the result? Immediately, it will depend upon Mr. Hill. If he persists in doing business in a fair way; if he stands clear of combinations and carries freights at fair rates, the old roads will be broken down. Neither the Northern Pacific, nor the Union Pacific, nor the Southern Pacific can stand the competition of a road built and operated on fair business principles. If the new company carries out its promised policy, the old lines will get no through business at present rates; and if they meet the lesser rates they cannot pay dividends, or even fixed charges. The situation is not a comfortable one for them. They have either to bribe Hill into cooperation, or to face bankruptcy. Of course, they will attempt to seize the first horn of the dilemma—and there lies the danger to the public. Human purpose is often weak, and Mr. Hill is no doubt in the business for what he can make out of it. It is very much to be feared that the old rule which declares that "there will be no competition between railroads where combination is possible" will again be proved. But, in any event, the secret is out. The construction of the Great Northern has demonstrated the fact that the old roads represent too much money; that they can be duplicated for a fraction of their alleged capital; that upon an honest basis of cost and under prudent management railroads can profitably carry freight for one-half to one-third of present rates. With these facts known there can be but one end. The roads will in time, whether Mr. Hill stands to his fair promises or not, be put upon an honest basis. The "water"—whatever its source—will be squeezed out of them and they will be permitted a fair income upon their actual value, allowing for reasonable but not excessive charges of management. It may take twenty years to accomplish this good result, but it will come. The time when the public can be forced to pay dividends upon fraudulent railway capitalization is passing.

Should the Great Northern road stand faithful to the promises of Mr. Hill, it will, some time in December, begin to haul freights across the continent to Puget Sound at rates vastly reduced as compared with what we are now paying. It looks, at first view, as if California would come in for important and immediate benefits, but it is, in fact, very much to be doubted if she is in a position to benefit from it. To float goods from Puget Sound to San Francisco would be easy and cheap, but how then could they be distributed to the interior? The company which controls the transcontinental roads also controls the local roads, and it always takes good care to let its left hand know what its right hand does. Suppose the merchants of San Francisco could bring goods here at half the present cost, they would be helpless, because the local rates would be put at such a figure that the country could get no benefit from it. The local rates can always be juggled to control the situation, and this fact brings us face to face with the most neglected but really most serious aspect of the transportation problem in California. Important as the demand for cheaper transcontinental rates is, far more important is the demand for cheaper rates from point to point in California. An independent railroad from Los Angeles to Redding, with connecting and tributary side lines, would do more to relieve California from its transportation troubles than half a dozen lines across continent. That such a road is not in existence is the fault of our own people. They understand the situation, they control the traffic, and they have the money to build the road. That the necessity of the State has not been answered, that California has not long ago been relieved of its dependence upon a single railroad company is a pitiful comment upon our enterprise and a reflection upon the sincerity of our complaints. It is not surprising that outside capitalists do not come to our relief when, with all our boasted wealth, we raise not so much as a finger to help ourselves.

This practical want of confidence in California on the part of Californians is one of the curious facts of the time. Everybody knows that San Francisco is a rich city and that California is one of the richest States in the Union. California money is always seeking foreign investments. It helped to rebuild Chicago after the great fire; it has reared vast buildings in New York; it largely rebuilt Seattle three years ago; it opens the mines of Montana and waters the plains of Arizona, but—here is the curious and painful fact—it does nothing in California. Our richest resources are neglected and dead for the want of a mere fraction of the capital which streams from our coffers to enrich lands and cities remote. Look at our neglected mines; look at our fruitful lands thirsting for water and valueless only for lack of it; look at our wastes which only need transportation to make them the seats of population, industry and wealth. Our people admit the opportunity; they even boast of it; but when they come to invest their money they reject all local invitations save those which rest upon "cent for cent."

The trouble with San Francisco capital is that, for the most part, it is in the hands of men unskilled in business. They have acquired it less through superiority of abilities and enterprise than through the accidents of a new and rich country. In few instances has it brought to its possessors the discipline, skill and broad self-reliance which is usually the best effect of wealth upon those who hold it. If a half-dozen enormously rich men of San Francisco who might be named had acquired their wealth in commerce, in manufacture or in other large and legitimate projects, factories would be as common as vineyards, railroads would penetrate every district of the State, California products would seek markets all over the world in California ships, and we should have double our present population and four times our present wealth. But in getting their wealth these men drew from rather than added to the wealth of the country. They acquired for themselves by one scheme of speculation or another much money but not the skill to administer it wisely. Hence we see men like Mr. Flood, Mr. Mills, Mr. Fair and others always on the lookout for cent-per-cent investments, but never branching out into broad projects calculated to extend and invigorate the industrial organization of the State and stimulate a spirit of enterprise. If they ever go beyond the lines of cent-per-cent, they go abroad and put their California capital where it does nothing for California. It is unquestionably a fact that the only California capitalists who have ever done anything in a large way directly connected with the interests of the State are the much criticized railroad millionaires. They have at least, even while oppressing her, demonstrated their confidence in California and have accepted her pledges for the security of their fortunes.

The following from the Portland *Oregonian* has the cordial endorsement of the RURAL. It is in pleasant and wholesome contrast with the tone of the leading California daily papers:

> The public must not be permitted to forget, in the midst of rapturous enthusiasm over the victory at New Orleans, that prize-fighting is very low and dirty business; that it is a crime punishable with fine and imprisonment in nearly every State in the Union; that a prize-fighter is a law-breaker and that every person who assists in the performance is his accomplice, and that the practice appeals directly and wholly to the most debased and dangerous classes of society and to the most degraded instincts and sentiments in persons moving, for most part, in higher social circles. All the enthusiasm and adulation lavished upon victors in these bloody and brutal contests by persons who call themselves gentle and decent cannot obliterate their essential character. A prize-fighter remains a prize-fighter, though crowned with laurel, deafened with popular applause and smothered in personal flattery. He remains a person a trifle less respectable than a burglar or a prostitute, because his vocation partakes of the nature of both, since he is at the same time a law-breaker and a common merchant of his bodily perfections to gratify the most brutal passions of humanity. He sells his strength as the harlot sells her beauty; he who pays gate-money may enjoy the display of either. He is the male of her species. These are dull and commonplace notes to sound in the chorus of triumphant acclaim with which the country is now ringing, but they are needful to save the public from forgetting some things it is important to remember.

The practice of assessing candidates for office in the interest of the campaign fund merits the indignant criticism which Mr. Berwick heaps upon it. It is the source of innumerable evils, and, in its tendencies, utterly fatal to the American idea of representative government. Not least among its bad effects is that it bars out from the legislature, and from public life in general, just such high-minded, intelligent and independent men as our good friend Mr. Berwick. Such men will not buy office nor accept it upon humiliating and degrading terms. The tickets are therefore made up of men less scrupulous and less fit to serve the interests of the State. The campaign assessment scheme is one of the ways by which corporate and other sinister influenses maintain control over legislatures. The political agent of some job requiring legislative aid, prior to election, assumes the obligation and actually pays the assessments of many candidates, who, when elected, are bound to vote as he directs. The campaign fund thus created by corruption is naturally employed to promote further corruption. We are extremely gratified that one good, bold man has spoken out in plain terms of honest indignation concerning an abuse that has already vitiated the quality of our representative system and which threatens its destruction.

During the past week there have been daily accessions to the fleet of cholera-infested ships lying at quarantine just outside New York harbor, and the number of persons under detention is between three and four thousand, of whom four-fifths are immigrants of the most ignorant and unclean sort. Each day during the week there have developed from two to ten new cases, and each day the deaths have ranged in number from two to six. As yet, no case of cholera has developed on shore, and it is believed that no possibly-infected person has succeeded in getting past quarantine. The inconveniences of the detained passengers have been extreme, and in the case of the cabin passengers of the Normannia (chiefly Americans) have amounted to positive suffering. First, although there was no cholera above decks on the Normannia, and her cabin passengers therefore probably uninfected, they were detained on board ship and in danger of infection from the steerage for a full week. Finally, on Monday of this week, they were loaded on board an old sound steamer and dispatched to Fire Island, where the State had bought a summer hotel and prepared it for their reception; but when they attempted to land they met some four or five hundred bay boatmen, who drove them back, alleging the fear that their families and themselves would be infected. The ill-starred people were unprepared for such resistance, and spent the night as they had spent the previous day, rocking in the straits in a boat unfit for any service in rough water and unprovided with the commonest comforts. The distress of five hundred men, women and children thus situated, without beds or bedding, poorly

supplied with food and driven from the shores of their own country as unclean, can be imagined. It is described by those who suffered through the ordeal as immeasurably cruel, and their indignation against the quarantine officials is at the boiling point. On Tuesday the governor of New York sent a regiment of the national guard to disperse the rioters at Fire island, and the much abused passengers of the Normannia were landed and made comfortable. The steerage passengers will be landed on Sandy Hook, and all persons attacked with cholera will be removed immediately to Hoffman island, where the quarantine pesthouse has been established. The dead bodies are not buried, but destroyed in the quarantine crematory on Swinburne island. Thus matters rest at New York. At Hamburg the plague still rages, the number of deaths ranging from 110 to 200 each day. A few cases are reported each day in England, but in every case thus far the victim is a recent immigrant. As yet, Hamburg is the only European seaport seriously affected. About 2000 deaths are reported each day from Russia.

His Eyes Opened.

Mr. Berwick Finds Out How Campaign Funds Are Raised.

CARMEL VALLEY, Sept. 10, 1892.

TO THE EDITOR:—It is high time some one looked at our political methods "From an Independent Standpoint!" That's just what I'm trying to do! I had my attention rudely called to the matter. A week or two ago I thought I was honored by a party nomination for Assemblyman. My nomination was as unexpected as unsought. It was made and seconded in a flash, and in another I was called upon to speak. This is about what I said, after making due obeisance: "I never asked for an office; I never should have asked for an office; I never asked for a vote; I never will ask for a vote, nor will I use any clandestine methods to accomplish my election. If I go to Sacramento I go as your servant to do your work, and it is for *you* to thank *me* for going. If on these terms I suit you, well and good; if not, I am "not in it." The convention cheered and told me I was just the man they wanted. So far, all O K. A day or two of peace ensued and then, among other demands, came a letter from the County Central Committee (no matter which party; both do it!) informing me that I was assessed $—— for "campaign purposes," and requesting remittance at once.

Summing up the situation, things stood about thus: If elected, my legitimate salary for a 60 days' session would be $480, about one-half of which it might be proper to allow for personal expenses. If I followed party tradition and acceded to all demands these would have more than consumed the other half. Now, sir, a man either gets elected for honor or for lucre. An honor which is *bought* is, to all right-thinking men, the *rankest dishonor*. An honorable man would be poorly repaid by an "Honorable" prefixed to his name in public, while his inner consciousness rankled with a sense that "Dishonorable" would be more appropriate. It goes without saying then that only seekers of lucre,—"boodlers,"—will accept office on such terms.

Fortunately for myself, after 27 years of industry and frugality, I have attained a modest independence, and was able, summarily and indignantly, to refuse to contribute one cent for "campaign purposes," though well-knowing that I should be branded as a political blacksheep and severely let alone for all time to come. Had I been a chronic officeseeker I might have been compelled to fall in line.

Now, sir, what is this system of assessing nominees but an invitation to officers to become boodlers? The C. C. C. virtually say, we'll milk you and then you milk the great American people.

When a man has to spend his salary to get elected, what do you expect him to do but to "get even" in some illicit manner?

It is idle to declaim against boodlers in the Assembly at Sacramento when you teach them the trick right at home.

I never cared to investigate where "campaign funds" came from before. I had a floating idea that some open-handed men, who considered their partisanship was patriotism, voluntarily gave of their superfluous wealth. Now I see the thing in all its bald vulgarity—a sheer bargain and sale from end to end.

If you git me inside the White House
Your head with oil I'll kind o' 'noint,
By gittin' you inside the lighthouse
Out to the end of Isalam pint.

If we are sincere when we affect to deplore the evils of boodle, stop the matter right at home! Stop assessing your candidates for "campaign funds!" Stop "campaign funds" altogether!

No doubt I shall be told the people must have their anvil-firing, their brass bands, their spread-eagle speeches. Some years ago there was one thing thought more needful than any of these. It made less blare and glare and racket, but men valued it as the one thing indispensable in politics—it was called HONESTY.

I, sir, for one, think there is too much brass, too much noise, too much wind in politics already, and I trust my fellow-farmers will all feel as I do in this matter and call on their party committees to cease from what is practically selling public honors (?) by assessing nominees for office.

I think the self-denial exercised in dispensing with spread-eagleism may be more than repaid by even such a paltry consideration as a reduction of taxes, consequent on an honest administration of public affairs.

San Francisco is awaking in the interests of uprightness! Farmers, stand by your guns! Let San Francisco see that virtue still keeps her abode in our midst. See that boodle does not choke her!

EDWARD BERWICK.

Decreased Grape Yield.

SAN FRANCISCO, Sept. 12, 1892.

TO THE EDITOR: I notice that you recently published a report of mine on the condition of the grape crop. That article was written before the recent hot spell, which wrought such havoc in the vineyards of Santa Clara Co. I do not think now that Santa Clara will have to exceed 40 per cent of last year's yield, and there are some who place it as low as 33⅓ or even 25 per cent; others make it as high as 50 per cent. WINFIELD SCOTT.

[The above is sent us as a personal note from Mr. Scott and not as an official communication from the commission of which he is secretary. The decrease in product should exert an effect on market values.—ED. PRESS.]

FRUIT PRESERVATION.

Recent Improvements in Prune-Making.

We find in the *Record Union* an article which is in part observation and in part anticipation, but in both parts interesting. It is as follows:

It seems to us a rapid advance in production of cereals when we look back 50 years and compare the sickle of that day with the harvester of this. In the 15 years that California has been producing prunes the advance has been almost as great, and that in an industry where labor was thought to be king, and in which we expected to see busy villages cover the whole country. We had learned that the prune must be subjected to many a peculiar process of heating, baking, etc., besides manipulations to make it part easily from the pit. One by one we have dispensed with such theories and practice and found that if the fruit is gathered when sweet, run into grades according to size, has the skin treated to facilitate evaporation, and when dry in the sun is cleaned and treated with a coating of glucose or grape syrup, nothing more is necessary for a product that will reach the world's markets in cargoes.

It has been found that almost every stroke of this work can be done by machinery. When prunes are fit to gather they drop easily from the tree. Taking advantage of this the load a low platform-wagon with big boxes and stop when the middle of the wagon is opposite the tree and six or eight feet distant. With a canvas about five yards square, and parted in the middle, fastened to a pole on one side, that rests against stakes upon the edges of the boxes, they spread the canvas under the tree, give it a good shaking and then raise the outer edge of the canvas, and, as they walk toward the tree, roll the prunes into the boxes.

They drive to the drier and there hand the boxes to a man who pours them into the elevator, where a draper, modeled after that on a header, carries them to the grader, which runs them into from four to seven sizes and leaves them in separate bins. One after another the contents of these bins are passed through the dipper, where machinery carries the fruit through a solution of hot lye to soften the skins.

They used to depend on heating the dipper over an arch and the strength of the lye was mainly depended upon. Now they are heating the dip with steam and are getting to rely so much on the heat of the liquid that many are disposed to give up the lye entirely. The smaller the prune the longer it needs to be dipped. This is one great advantage of grading before treatment.

As the prunes come from the dipper they fall upon a tray, three feet by eight, made of shakes nailed to a frame.

Fifteen or twenty of these frames are piled on a car or truck and run out to the curing grounds.

With remarkably favorable weather they may be ready to have two trays poured on, one within three days, but it is pretty good management and very fair weather if you can fill your prune trays once a week.

A set of the largest machinery now in use has capacity of 20 tons per hour. As each tray holds about 72 pounds and you place about ten trays on a rod, a little over 57 tons of fruit are spread on an acre. At this rate the big machine can cover a ten-acre field every three days, and the capacity of machine and yard should be calculated to handle the crop in about 12 full days' work. This amount of fruit would grow on 240 acres when in full-bearing. Machinery, building, trays, etc., cost in the neighborhood of $10,000.

THE PROCESS ROOM.

As prunes come from the drying-yard they are somewhat dusty and some have shriveled more than others. To perfect the product they are run through a second-grader and a double-dipper. In the first bath they are washed, and, as they come to the top of the apron, are rinsed with a spray, when they fall into the second bath in which is a solution of glucose, or grape syrup. Perhaps others use other preparations, for this is a feature that many try to surround with mystery in promotion of the idea that only their particular method of treatment insures the exquisite flavor. Either the glucose or the grape syrup will gloss the prunes. As the syrup gives the more agreeable flavor, and we don't know what to do with all our wine grapes, while we have to send away for glucose, the presumption is quite strong in favor of the syrup.

As the prunes leave the dip they fall upon a draper that is the first one of the series. Each of these connects with a bin, funnel-shaped, from which the prunes are sacked. The operator arranges his slides to deliver the fruit in either bin he chooses.

From these bins the fruit is run into sacks of 100 pounds each. A good, strong, cotton sack is the best package and a cheap affair (liable to burst at any time) the worst that can be used.

Now, all through this process the prune has never been handled once.

With improved appliances one day's labor is capable of producing from 1000 to 2000 pounds of the finished product, depending on skill, appliances and management. In this we make no allowance for hindrances, such as waiting for material to arrive, rehandling during damp weather, etc.

Now, the capacity of such a plant is only limited by the time required to empty the fruit into the hopper and take the trays away. The time may come when they will run two elevators and unload wagons from each side and take away trays with two discharges. Such a plant as here described in a general way costs about $10,000, and it is fair to allow for the use of such plants, including interest, insurance, wear, etc., 20 per cent of their cost. If the plant can only be depended on for two weeks' full work in a year, it seems doubtful policy to incur a cost of $1000 per week for machinery. If worked to its full capacity to produce 500 tons of dried prunes the cost does not seem so very heavy after all, when we figure it down to $2 per ton for use of plant, and $2 to $4 per ton for labor of gathering, drying and processing.

Locate such a plant where it can be used for apricots, then peaches, prunes, and finally for raisins, and it can be worked on much smaller margin. In a district where no extra help was needed, save in the prune seasons, it would be about as much trouble to get a crew together and train them for two or four weeks' work as to pay them. The time will come when prunes will be handled very much as wheat is turned into flour, and it may be as much the custom to keep a sack of prunes on hand as it is to keep a sack of flour.

As they become a staple article of food with the masses we can safely increase our planting, but we must remember that the cost to the consumer is the measure of the market's demand.

Drying Figs.

C. H. Leggett & Son of Oroville, who make an excellent article of dried figs, give the following as their method:

Let the figs drop from the trees—pick them up every morning, as any longer will sunburn those that are already dry. You will find, each day, figs on the ground in three stages of dryness, viz, those already dry, which want to go straight to the scalding room; those wanting to dry that day and a portion of the next, and those that want three or four days on the trays.

Scalding—Dissolve two to three quarts of Liverpool stock salt in 50 gallons of water in the kettle, and when boiling, jumping hot, dip in wire basket hung on a pulley over the kettle, and immerse a full half minute, hoist clear of the water, and let drain a few moments, then dip again. In packing, keep the hands moistened with salt water while manipulating the figs.

Crop Conditions.

Reports Received from Voluntary Observers Last Week.

The temperature has apparently been slightly above the normal in all sections, while there has been a very considerable deficiency in rainfall. The only rain reported was .04 of an inch at Eureka, Humboldt Co.

There has been considerable damp and foggy weather along the immediate coast, but in the interior it has been clear and dry.

At Sacramento the temperature has averaged a fractional degree above the normal; light to fresh southerly winds have prevailed, and there has been continuous cloudlessness.

Peaches, pears, plums and prunes have been about all disposed of, and grape-picking has begun. The crop is generally reported to be light. Some shipments have already been made, and it is expected that within the next week or ten days there will be great activity in this line. It is estimated that 60 carloads of grapes will be shipped from Sacramento within the next week or two.

The weather has been especially avorable to fruit-drying, and also to raisin making, which has begun in most sections heard from.

Hops are about all picked and are being shipped. The crop, in some parts, is reported to be somewhat lighter than was expected from previous estimates.

The reports for the week, received by Acting Director Burrows of the State Weather Bureau, have disclosed no material departures from the normal conditions or former anticipations. The prevalent tenor of most of the correspondence is, as heretofore, that the season's operations, taken as a totality, yielded rather satisfactory results.

The Honey Crop of the United States.

The *American Bee Journal* says: For the United States as a whole, the honey season has been a slight improvement over last year, although we cannot call it an average year. It may be well to call attention to the fact shown in the table, that Ohio, Iowa, Minnesota and Michigan took the lead in honey production this year, while California, usually the banner honey State of the Union, shows almost a total failure.

Alabama	Fair	Michigan	Fair to good
Arkansas	Indifferent	Minnesota	Fair to extra good
California	Very poor	Mississippi	Very poor
Canada	Fair	New Hampshire	Fair
Colorado	Below average	New Jersey	Poor
Connecticut	Poor	New York	Poor to fair
Delaware	Very poor	North Carolina	Poor
Florida	Fair to good	Ohio	Fair to extra good
Georgia	Fair	Pennsylvania	Fair to good
Illinois	Poor to good	South Carolina	Fair
Indiana	Poor to fair	Tennessee	Poor to fair
Iowa	Fair to very good	Texas	Poor to fair
Kansas	Fair to good	Utah	Poor
Kentucky	Poor to fair	Vermont	Poor to fair
Louisiana	Fair	Virginia	Fair
Maine	Fair	Washington	Good
Maryland	Poor	West Virginia	Poor
Massachusetts	Fair	Wisconsin	Poor

P. C. W. P. A.

TO THE EDITOR:—On the 21st, 22d and 23d inst., the annual convention of the Pacific Coast Woman's Press Association will assemble at Union Square Hall, San Francisco.

The literary exercises will include papers and addresses from the brightest women of the coast.

The subject of incorporation will be discussed in all its bearings, and some decisive step will no doubt be taken in the matter.

Much interest in the coming event is felt in all literary circles of the West. MAUDE PEASLEE.

WORK has been started upon a great water storage and irrigating enterprise in Sabino canyon, near Tucson, where reservoirs will be built. There will be three dams, the estimated cost of which will be $80,000. The capacity of these reservoirs, which are in a line one above the other, will be 6,000,000 gallons.

HORTICULTURE.

Robbing Bees and Drying Fruit.

LAMANDA PARK, LOS ANGELES CO., Sept. 8, 1892.

TO THE EDITOR:—I enclose you a sample of pears taken from the drying-trays after 12 hours' exposure to the sun. These pears you will notice have been eaten out and rendered absolutely unsalable.

This eating and destruction was done by bees. It occurred in the San Gabriel valley in the midst of a fruit-growing and fruit-drying district. What has happened to these pears has happened more or less to fruit dried all over the valley. Pears and apricots suffer most. The entire honey production of bees in and along this valley does not bring in as much as do the Bonine and Thompson fruit orchards, and still the whole of our fruit interest is annoyed and pestered by these excellent but ill placed insects. We lose very considerable sums by these bees. As a matter of equity, it would be proper for the beekeeper to pay the fruitgrower for the fruit converted to his use by his bees.

These pears of Mr. Bonine have been taken—stolen by bees—for the benefit of their keeper. Ought not Bonine to have an action for this and a right to replevy the honey produced from his pears? It seems to me that this might be a good solution of the trouble. Trace the bees as we used to trace for bee trees, and so, the injuring beekeeper found, make him responsible for the full value of the fruit eaten or injured, and give a hold on the honey as you would for any other converted property that had been stolen. ABBOT KINNEY.

[Mr. Kinney sends us a most striking illustration of the sad work which bees perform upon exposed dried fruit. Nothing is left but the skin of the pear and the network of coarse fibers which were once concealed in the fruit pulp. It is simply "skeletonized" fruit. There must of course be a remedy for such robbery.—ED. PRESS.]

Walnut Raising.

Read by C. A. COFFMAN of Rivera before the Farmers' Institute at Chino.

The subject of walnut culture is an extensive one, and there is so much which may be said upon it that I fear we will not have time to discuss the question from all standpoints and give it the consideration it deserves.

The first matter to be considered is the soil. I think a deep alluvial deposit, with little or no alkali, is best adapted. It requires good drainage, any subsoil which is impervious to water being objectionable; water standing around the tree roots is hurtful, causing sour-sap, and in time killing the tree. It is especially so if impregnated with alkali or mineral salts. I consider a depth of less than ten feet to water objectionable; from 12 to 14 feet is better.

I do not think the fogs a detriment to walnut-growing, as our finest nuts are grown near the coast, where fogs are of frequent occurrence.

In planting, trees should be put at least 50 feet apart, and I think 55 or even 60 feet is better. I have seen trees planted 40 feet apart, and after they had attained about 20 years, the branches overlapped to such an extent as to injure the fruitfulness of the tree, and it became necessary to remove some of them.

I think soft shells might be planted 30 by 50 feet, and when about 16 years old remove each alternate one, thus leaving the trees 50 by 60 feet apart. The soft shell commences bearing at five years of age, and from that time until 16 years of age a tree ought to produce a total of 1000 pounds of nuts, or the trees could be taken out at 12 years and transplanted to good advantage. As I have said, the soft shells commence bearing at five years; at ten years they are at full bearing—that is, the tree is fruited to its utmost capacity. Of course the tree keeps on growing for a number of years, and the larger the tree the more walnuts it will produce. I consider this by far the best variety, as the tree is thrifty, a good grower and bearer, fruit superior and commands a better price in markets than the hard shell. The leaves also drop later, so that it makes gathering the crop more convenient, as the nuts are allowed to fall and then picked from the ground.

This year we sold soft shells at 8½ cents, hard shells at 7½, and paper-shells at 9 cents per pound.

The paper-shell trees are dwarfs, the nuts small and hard to hull. I think, however, they might be made profitable by planting them by themselves and putting more to the acre.

In gathering the crop, the nuts should not be allowed to remain too long on the ground after falling, as the fog and sun are injurious to them, causing the shell to burst open, turning the nut black, and exposure to the sun causes the nuts to become oily and rancid.

I think they should be gathered at least three times during the month or six weeks that they are falling. At the last gathering the tree should be shaken by means of a pole with crotch and hook.

The hard shells are not nearly so susceptible to the action of sun and fog as are the soft shell. In our section we have never been troubled with the hull sticking on the soft shell nor on the hard shell to any extent. Perhaps one-half of one per cent are unsalable on account of hulls sticking. In curing we use shallow trays about four by six feet and six inches deep. These trays hold about one sack of nuts (110 pounds), have lath bottom and handle at each end, which are taken by two men and thoroughly shaken. This allows the fiber and dirt to escape. They are then put through the grader. This has a sieve with inch meshes, and all nuts which are small enough to pass through this sieve are second-grade, and sell in the market for two cents per pound less than first-grade. Hard shells from old trees give five or six per cent of second grade nuts. The soft shell trees are younger, as we have only recently commenced planting them. So far, the second-grade soft shells will not exceed one-half of one per cent. Soft shells should be cured in the shade by spreading on a floor or in trays. They should not be spread over a foot in depth, should have an airy place, and will cure in a few days, especially if they have been allowed to fall from the trees. Hard shells can be cured in the sun, as they will not open when exposed to its influence as does the soft shell, but I question the propriety of curing any kind in the sun, as I think it starts the oil in the nuts, causing them to taste rancid.

In pruning, I think four or five feet from the ground high enough. It has been the custom to prune as high as six or seven feet in order to cultivate the ground underneath. I consider it detrimental to the tree from the fact that it causes it to lean, thus exposing the south side of the tree to the sun and causing it to become sunburned. In pruning grown trees, I should not trim the south side at all unless the branches interfered with each other. It is well to trim on the north side in order to balance up the tree, as they always lean toward the north. Nursery trees might be pruned to good advantage by cutting the tops off, thus preventing them from growing so tall and bending over.

In cultivating the young trees it might be well to plow an ordinary depth of four to five inches, but with the older trees the roots should be allowed to come to the surface; a cultivator or even a sweep might be used.

Land which requires fertilizing, I should not consider good for walnuts at all.

ENTOMOLOGICAL.

A More Encouraging Report of the Scale-Eaters.

A large meeting of horticulturists was held in Orange recently to consider the services and outlook of the new scale-eaters collected by Mr. Koebele in Australia.

Hiram Hamilton opened the meeting, referring to the absence of Prof. Koebele as unfortunate. Mr. Hamilton had been sent 100 specimens of the *orcus chalybeus* by Prof. Koebele for propagation in Orange county. He had placed them in his orchard at Orange and had that morning visited them in company with Prof. Craw. They were found to be doing well and promise the best of results. They had been placed upon his trees some weeks ago. Two days after placing them in a scale-infested orange tree in the middle of his orchard, he had gone to look at them, and had been able to find only five; six days later he could not find any, but he found a nest in the tree of nine eggs, which he took home, and last Sunday a week ago they had hatched out nine beautiful little cubs. In company with Prof. Craw on Thursday, he discovered many bugs, beetles and eggs in the tree, and was satisfied the parasites had come to stay. They had not made any appreciable inroad into the ranks of the scale, but Prof. Craw was of the opinion that they would in three or four months

Prof. Craw was introduced and explained the absence of his collaborator. Prof. Koebele had telegraphed him that it was impossible for him to come, as he had been taken with a sudden attack of illness just before starting from Los Angeles. Prof. Craw said that he had visited the *orcus* in Hamilton's orchard and had found them doing well. He was convinced that the parasite would be a perfect success. He had seen the parasites in Los Angeles the day before and had found a great many of them, including eggs and beetles. He thought there would be an abundance of them next May, when they would be scattered broadcast throughout the orange groves of the valley. In Australia a beetle preys upon the *orcus*, yet the latter exterminate from 50 to 75 per cent of the red scale. We have introduced the parasites, but not the beetle, and consequently they ought to exterminate the scale. The *orcus* does not propagate as rapidly as the *vedalia*. That is hardly to be expected. There is no evidence in entomological history of another visitation such as the *vedalia* had been to the white scale, millions of which had fallen prey to the hardy parasite. The *orcus* thrives best in shady trees, full of foliage. It likes shade, and once established will do yeoman service against the scale. The parasites now in the Hamilton orchard are doing well, and he thought by next April or May there would be enough of them to distribute throughout the orchards of the county. Prof. Koebele had stated when he left for Australia that he would not return until he had found a parasite for the red scale. Prof. Craw was satisfied that he had been successful in his search. The red scale here is the same as that found in Australia. It has been imported into this country from Australia, and taken from San Francisco to L. J. Rose's Sunny Slope ranch, whence it spread all over Southern California. The San Gabriel yellow scale, however, is different from the red. That had come from Japan. But the *orcus* would be equally deadly to both varieties. He had colonies of parasites established in Los Angeles and San Gabriel, and both were doing well. He had recently found 11 nests of parasites and was convinced that they would prove an entire success.

Prof. Craw said that no cessation in the warfare against the scale should be permitted, and that all means should be employed to eradicate the pest by fumigation. Scale on fruit cannot be effectually killed by spraying, but spraying with rosin wash would kill probably 95 per cent of the pests on the foliage.

A gentleman asked if the black scale did not prey upon the red, and in reply Prof. Craw occasioned some laughter by stating that he found that the black and red scale got along very well together. He considered the red scale the most deadly of all scales, because there was as yet no parasite to subdue them. Yet the *orcus* would be here in great quantities in the spring, when they would be distributed among the orchardists to begin their work of scale destruction. The red scale is not a pest in Australia. The parasite holds it in check. They are making a great success of raising oranges in Australia. Perhaps by next April or May the *orcus* would be introduced into every orchard in this county.

THE VINEYARD.

The Fresno Raisin Producers' Appeal.

The California State Raisin Growers' Association issued on Sept. 8th a statement for the purpose of making known to the raisingrowers of the State the action that has been taken by the association to sustain the price of raisins for the present season, and also the efforts which are being made by some packers who refuse to join the association to destroy the market and bring about this year the same deplorable result which last year gave the grower, in many instances, less than two cents per pound for his raisins.

When the association was organized in the month of June last, it found a very large portion of the raisins of the State had been this year, as in 1891, contracted and assigned to the packer to be sold by him on commission for the grower. The grower had signed an ironclad agreement with the packer, which enabled him (the packer) to dispose of these raisins at whatever price he (the packer) might see fit.

One of the first duties of the association was to ascertain at what prices these commission packers were selling the growers' raisins in the eastern market. About the middle of August it was reported that raisins were being sold by many of the California packers in the markets of New York, Chicago and Boston at prices that would net the grower considerably less than 4½ per cent a pound. Having in mind the deplorable, insane slaughter of raisins last year, the committee of this association caused telegrams to be sent to many brokers in the eastern States, asking for quotations and the names of firms who were quoting prices. The result was that nearly all the packing-houses and some of the cooperative societies of the State were found cutting prices. In answer to the earnest remonstrance of the association, and also with regard to the fact that the indignant grower, when informed of this state of affairs, in many instances intimated his intention to disregard his contract with the packer, and refuse to deliver his raisins to the packer who was thus slaughtering prices, the executive committee of this association felt that the association was strong enough to say to the packers: "This competition among yourselves in the eastern market at the expense of the grower must now and forever cease. We are strong enough as an association to stop you slaughtering prices. And to those who refuse to come into the association, we are able to render you powerless for evil by refusing to give you any raisins to handle."

On the 17th day of August last, about 200 of the growers of the State, members of this association, assembled in general meeting in Fresno. At this meeting the executive committee reported that 18 out of 22 of the principal packers and cooperative raisin-packing companies of the State had agreed to stop this jealous and insane competition among themselves.

This meeting was addressed by Mr. Williams, of the firm of Williams, Brown & Co., and Mr. Lemcke, of the firm of Schacht, Lemcke & Steiner, and the result was embodied in the following resolutions:

WHEREAS, We, the California State Raisin Growers' Association, in general meeting assembled, representing over 95 per cent of the raisin acreage of the State, have listened to the remarks, before the convention, of Mr. Williams, of Williams, Brown & Co., who also claimed to represent the firm of Cook & Langley, and the remarks of Mr. Lemcke, of the firm of Schacht, Lemcke & Steiner; therefore be it

Resolved, That in our opinion the manner of conducting the raisin business as expounded by the above-named packers is prejudicial to the best interests of the raisingrowers and tends to reduce the price of raisins; further

Resolved, That as long as these firms remain outside the packers' organization, and refuse to sign the agreement of other packers of the State to maintain minimum prices, that we, the California State Raisin Growers' Association, further bind ourselves neither to sell them our raisins or do business with them in any way; and be it further

Resolved, That we express our thorough disapprobation and contempt of those firms who are operating in a way that will bring ruin to the raisin industry of the State.

As the result of such resolutions and the action of the association, nearly all the packers and cooperative raisin-packing companies of the State have fallen into line and agreed to observe the following prices, which prices are calculated upon a basis that will pay the grower 4½ cents per pound in the sweat-box for all good raisins—those of the first and second crop.

Clusters, 20 pounds, $2 per box, minimum price.
Three-crown London layers, $1.65 per box, minimum price.
Two-crown London layers, $1.45 per box, minimum price.
Three-crown, fancy loose, unfaced, $1.40 per box, minimum price.
Three-crown, fancy loose, faced, $1.45 per box, minimum price.
Four-crown, loose, sacked, 5½ cts. per pound, minimum price.
Three-crown, loose, sacked, 5 cts. per pound, minimum price.
Two-crown, loose, sacked, 4 cts. per pound, minimum price.
Three-crown, loose, boxed, $1.25 per box, minimum price.
Seedless Muscat, 5 cts. per pound, minimum price.
Seedless Muscat, fancy, 5½ cts. per pound, minimum price.

The only dissenting packers, whose pack can in any way affect the market, are Cook & Langley, Schacht, Lemcke & Steiner and Williams, Brown & Co. Messrs. Williams, Brown & Co., although refusing to sign, have written to the association that it is their intention honestly to observe combination prices until further notice. The packers and the merchants both here and in the East are now reporting that they anticipate the raisin pack of this season, if properly handled, will fetch a higher price than ever before known in the State for the reason that the Spanish raisins will be entirely shut out from all the ports of the United States by reason of the cholera now raging in Spain; and also that the short crop of fruit in the East has so increased the price of dried fruit that raisins will, to a great extent, be used as a substitute for dried fruit. As a proof of the improved market which has been called into existence by the packer and grower agreeing upon one uniform price, many of the packers inform us that they have already sold, at the combination price, all the first crop of raisins controlled by them. The executive committee of this association feels that this encouraging state of affairs is due entirely to the

action taken by the association, backed by the firm attitude taken by 95 per cent of the growers of the State, members of the association, refusing in any way to sell or do business with those packers who decline to sign the agreement to keep up prices.

Every grower in the State should know the attempt being made by jealous packers to destroy the market. Mr. Lemcke, of the firm of Schacht, Lemcke & Steiner, told the growers at their meeting on the 17th of August that he had not bought a pound of raisins and that he did not intend to make any contract for raisins. He would buy just what he could see he could sell and watch the market. He further stated that last year he bought from the farmer—that is, the needy farmer—raisins in the wagon at the door of his packing-house for 1½ cents a pound, and he asked the meeting to believe him when he assured them that he lost money on the raisins he so purchased at that price.

Unsuccessful attempts are now being made by some packers to break up this organization and to destroy the market. Circulars are being issued quoting prices much below that agreed to by the packers. Eastern brokers are taking orders at low prices, but the packers are standing firm, and for the most part refusing to confirm the orders taken.

The action in sending circulars broadcast among the buyers of the East cannot be condemned in language too direct or forcible by the Raisin Growers' Association of this State. The packers of the State who are working in accord with the grower in developing this great industry should also place the brand of their condemnation upon the acts of those firms, and also of any who may be in sympathy with them. Every grower and every legitimate packer should work in harmony to rescue this fair and fruitful calling, alike beneficial to the raisingrower and the Golden State, as well as the consumer of the raisin, from the greed and utter selfishness of those packers who would for a temporary money-gain blast an industry that is not only the glory of California, but the pride of the nation.

California State Raisin Growers' Association,
By W. Harvey, Secretary.

Dried Grapes in Northern Sonoma.

We have heard this season every figure from 2½ cents net a pound to 3½ less 6 per cent. These figures give $45 to $65.80 to the ton dried—a wide range—and they mean from $11.25 to $17.50 to the ton green, as the grapes in general dry out three-quarters of their weight. Every man knows about how much he is willing to take for his grapes, and usually bases his ideas on the green product. He must therefore remember that it will cost him from $8 to $22 to handle each dry ton—the variations and details of the figures we will look at later—let us say $20 on an average. Deduct this $20 from the $45—the lowest offer—and we have $25 profit, and divide this by the shrinkage on the basis of four tons green to one ton dried, and we have $6.25 a green ton net as they hang on the vines, a pretty low figure for green grapes, even if we have counted the cost of picking in getting at the $20. Take, now, the highest offer, $70 less six per cent, or $65.80, and deduct the $20, and we have $45.80, or $11.45 net per green ton on the vines, which is not so bad. Just here we may compute the price the wineries ought to pay in order to compete with the dried-grape buyers. Add to this $11 45 the cost of picking, say $1.15, and hauling 75 cents per ton, and we have $13.45, the figures which will approximately net us as much for green-grapes as $65.80 for dried. If we contract to deliver in Santa Rosa from Healdsburg, we can deduct $1.80 per ton for the local freight rate. and we will receive, then, free on board at Healdsburg, $64 a ton, or $11 even for the green. These figures are borne out by the fact that in some parts of southern California the dried-grape buyers outbid the wineries by offering $16.75 to the to the others $12 and $13.—Healdsburg Tribune.

FLORIST AND GARDENER.

Seasonable Hints.

The following was read by F. A. Miller, San Francisco at the August meeting of the State Floral Society:

FREESIA REFRACTA.—This is the proper time to plant bulbs of Freesias for winter-flowering in pots. Select strong bulbs and plant five to six bulbs in a six-inch pot in the following manner: Put a few pieces of broken crocks in the bottom of the pot, over which place a handful of coarse pieces of dry cow manure; then fill the pot two-thirds full with ordinary rich potting soil, such as is used for hyacinths and other bulbs. Plant the bulbs by pressing them firmly into the soil and cover them up about a half-inch. Give them a good watering, and place the pots in the open air in a sunny exposure. When the plants are several inches high, fill the pots up gradually with the same kind of soil. This treatment will make the plants stronger and stiffer. As soon as early frosts may be expected, put the pots in the house in a sunny exposure. The plants may be expected to be in bloom in January or February. Freesias are delightfully fragrant, and I do not know of any plant which will give more satisfaction as a winter-flowering plant than Freesia Refracta. Strong flowering bulbs can be had at 50 cents per dozen.

PANSIES.—The end of the present month and the beginning of September is the time to sow pansy seed, if they are expected to bloom during the winter months. The pansy thrives best in cool weather, therefore the finest flowers are produced during winter and early spring. The seed should be soaked in warm water for twenty-four hours in order to produce quick and uniform germination. Sow the seed in pots or boxes, in a light sandy soil, and place in a sheltered position and out of the reach of slugs, which often destroy an entire crop of young plants in a single night. As soon as the young plants are sufficiently large to be handled, they should be transplanted to shallow boxes. Set the plants about one-half to three-fourths of an inch apart. As soon as they crowd each other they should be transplanted into the ground where they are to bloom. It is hardly necessary to say that the soil in which pansies are expected to bloom should be made very rich in order to insure large and fine flowers.

CHINESE PRIMROSES.—This class of plants is indispensable for winter-flowering. The seed should be sown now in order to have blooming plants in January. They can be relied upon as constant bloomers for six to eight months. Of course they are house plants, and as such give universal satisfaction. The seed of the Chinese primrose is somewhat expensive. The seed should be sown in pots filled with light, sandy soil, mixed with leaf mould. The seed should not be covered, but a pane of glass may be placed over the top of the pot to retain moisture and secure a more uniform temperature. As soon as the plants are up, more air should be given, and as soon as the little plants can be handled, they should be transplanted in pots or boxes in which they may be grown until sufficiently strong to be potted off in two-inch pots. They will make fine flowering plants in four-inch and five-inch pots. The proper soil for them is a light, porous soil of sandy loam mixed with leaf mould, coarse sand and a small proportion of old manure. Good drainage should be provided.

CINERARIA.—This is another very charming winter-flowering plant, the seed of which must be planted soon to have plants in bloom in January or February. The seed should be sown in pots and barely covered, and as the seed is very fine, the watering should be done carefully, so as not to wash all the seed into a heap or down into crevices near the rim of the pot. Good drainage must also be provided, and sufficient air must be given to prevent the damping off of the young plants. As soon as the young plants are strong enough to be handled they should be potted off in small pots. The cinerarias require plenty of pot room, and this necessitates the shifting into larger pots before they are thoroughly pot-bound. Green flies and other insects are very fond of the cineraria, and a very good way to keep them clean is to put tobacco stems on the shelf around and about the pots. They will bloom in five and six-inch pots, and when the buds make their appearance a little liquid manure will help the plants very much. Cinerarias make also fine blooming plants for the garden, and may be had in bloom during the entire summer, if they are planted out while they are in vigorous condition in early spring, as soon as the frost is over.

CEREAL CROPS.

Hot Water for Wheat Smut.

We gave some months ago an account of the hot water treatment of seed grain to prevent smut as a proposed substitute for bluestoning. As it is now approaching seed time it will be well to renew the suggestion that a trial be made in this State of the hot water treatment. We find the following in the Dixon *Tribune* of last week:

Smut in wheat is one of the greatest trials with which the average farmer has to contend. Copper sulphate, better known as bluestone, is generally used to prevent smut, as by soaking the grain in a strong solution the germs or spores of the fungus are destroyed. During the past few seasons very little of the wheat has been free from smut, and in the hope of learning of a more satisfactory method, J. N. Garnett recently wrote to E. J. Wickson of the State University. That gentleman forwarded him a Government bulletin describing the new Jensen or hot water method, a portion of which we copy.

This method, discovered by J. L. Jensen, of Denmark, in 1887, consists in immersing the seed, which is supposed to be infected with smut, for a few minutes in scalding water. The temperature must be such as to kill the smut spores, and the immersion must not be prolonged so that the heat would injure the germinative power of the seed. If the water is at a temperature of 132½° F., the spores will be killed, and yet the immersion, if not prolonged beyond 15 minutes, will not in the least injure the seed. The temperature must be allowed to vary but very little from 132°, in no case rising higher than 135½°, or falling below 130°. To insure these conditions when treating large quantities of seed, the following suggestions are offered:

Provide two large vessels—as two kettles over a fire, or boilers on a cook stove, the first containing warm water (say 110° to 130°), the second containing scalding water (135½°). The first is for the purpose of warming the seed preparatory to dipping into the second. Unless this precaution is taken it will be difficult to keep the water in the second vessel at a proper temperature.

The seed which is to be treated must be placed, a half bushel or more at a time, in a closed vessel that will allow free entrance and exit of water on all sides. For this purpose a bushel basket made of heavy wire could be used, with which spread wire netting, say 12 meshes to the inch, or an iron frame could be made at a trifling cost, over which the wire netting could be stretched. This would allow the water to pass freely and yet prevent the passage of the seed. A sack made of loosely woven material (as gunny sack) could perhaps be used instead of the wire basket. A perforated tin vessel is in some respects preferable to any of the above.

Now dip the basket of seed in the first vessel; after a moment lift it; and, when the water has for the most part escaped, plunge it into the water again, repeating the operation several times. The object of the lifting and plunging, to which should be added a rotary motion, is to bring every grain in contact with the hot water. Less than a minute is required for this preparatory treatment, after which plunge the basket of seed into the second vessel. If the thermometer indicates that the temperature of the water is falling, pour in hot water until it is elevated to 132½°. If it should rise higher than 132°, add small quantities of cold water. This will doubtless be the most simple method of keeping the proper temperature and requires only the addition of two small vessels, one for cold and one for boiling water.

Steam, conducted into the second vessel by a pipe provided with a stopcock, answers even better, both for heating the water and elevating the temperature from time to time.

The basket of seed should, very shortly after its immersion, be lifted and then plunged and agitated in the manner described above; and the operation should be repeated eight or ten times during the immersion, which should be continued 15 minutes. In this way every portion of the seed will be subjected to the action of the scalding water. Immediately after its removal dash cold water over it or plunge it into a vessel of cold water and then spread out to dry. Another portion can be treated similarly, and so on until all the seed has been disinfected. Before thoroughly dry, the seed can be sown; but it may be thoroughly dried and stored if desired.

The important precautions to be taken are as follows: (1) Maintain the proper temperature of the water (132½° F.), in no case allowing it to rise higher than 135° or to fall below 130°. This will not be difficult to do if a reliable thermometer is used and hot or cold water be dipped into the vessel as the falling or rising temperature demands. Immersion 15 minutes will not then injure the seed. (2) See that the volume of scalding water is much greater (at least six or eight times) than that of the seed treated at any one time. (3) Never fill the basket or sack containing the seed entirely full, but always leave room for the grain to move about freely. (4) Leave the seed in the second vessel of water 15 minutes.

[The reader will see that the above method of using hot water is only suitable to treatment of rather small amounts of seed wheat. If experiments are made this year with such small heating receptacles as are at hand and the result is satisfactory, it will be easy enough to devise appliances for heating on a large scale another year.—ED. PRESS.

THE IRRIGATIONIST.

Development of the West Side of Fresno County.

J. H. Harding writes to the Fresno *Expositor* as follows: Having just made a short prospecting tour over a portion of the county lying west of White's bridge and Mendota, I am prepared to state that the experimental tests made in plant and tree growth on that side in the past two years have fully demonstrated the fact that with the magic touch of water upon the rich soil of those plains future wonders may be looked for. To the south and west from Mendota, and contiguous thereto, lies a beautiful stretch of as rich land as can be found anywhere, even in California, and so level and even in character that it cannot only be very easily watered, but is susceptible of the highest state of cultivation.

In going southward from Mendota, the first place of noticeable improvements and fine tree and trim growth is Philip Dengler's, a gentleman who has taken an active part in the development of the West Side country, and has also been untiring in his efforts in the establishment of an irrigation district. High hopes are entertained now of the speedy consummation of their plans in soon getting a complete system of canals ramifying that whole country since Dr. Perrin's return from London with the good news that the sale of bonds for the district are as good as negotiated. The management have already advertised for bids for a speedy construction of the entire system, which it is estimated can be completed within a year from beginning.

Mr. Dengler has been trying the effects of a little water upon his trees, vines and alfalfa, procured from a deep well and windmill; and even with so limited a supply, I saw Carolina poplar cuttings that were planted last spring, and many have already made a growth of as much as eight feet this season and are now still growing strong and luxuriant. Figs and other fruit trees have made as strong a growth as those upon our subirrigated lands around Fresno.

His vines, now of three season's growth, are vigorous and healthy and bore a fair crop, which is already picked and cured and ready for the packer. This shows conclusively that they ripen much earlier than around Fresno. Alfalfa that he planted last March has already been cut six times, and to-day is knee high with a splendid stand. The Egyptian corn planted in May made a splendid growth and a fair yield without any irrigation whatever. He has several acres of it, and could not possibly water it from his well. Of course the space of trees, vines and alfalfa is limited to a few acres, but it shows the wonderful effect of a little water upon the rich soil.

I have procured samples of soil and artesian water, which I will send to the State University for analysis, so that those having land in the artesian belt and too high to be reached by the canal system, will still have means of irrigating their lands if the artesian water is not too highly impregnated with detrimental salts.

From Mr. Dengler's can be seen dozens of claim shanties and some quite pretentious houses where the possessors are holding on to their claims like "grim death to a dead nigger" in hopes of a reward in the near future for their pluck and energy, and I will say right here that just as soon as water is wedded to the soil they will have mines of wealth.

George Rupert pointed out to me a beautiful level tract of land where he expects to realize a fortune just as soon as the water comes, and I believe almost a single furrow plowed round it would hold the water on the entire piece, so level it is.

The whole country seems made up of a sedimentary deposit, and is as deep and rich as can be found anywhere, the difference being the lands upon the lower levels are a

shade heavier than on the high levels. I was also shown samples of gypsum from the adjacent hills in the Coast Range, where the quantity is unlimited, and Mr. Dengler informs me he can supply it laid down in carload lots in Fresno for $10 per ton, and guarantee its good quality. Here is a chance for our orchardists, vineyardists and alfalfa growers to increase cheaply their crops and right up their lands that are getting so strongly alkalied from excessive irrigation, and rise in the subwater level about Fresno. Those who have tried this gypsum can attest to the beneficial effects from its use.

There is no doubt in my mind that the magic touch of water upon those West Side lands will produce such wonderful results that brain, energy and muscle will convert what now seems a barren waste into a veritable garden of Eden.

In due time, specimens of productions, soil, gypsum, fossils, petrifactions and curios from this new part of Fresno county will be obtained and placed in the collection of exhibits by the commission for the World's Fair.

THE STOCK YARD.

Live Stock at the Petaluma Fair.

TO THE EDITOR:—On Saturday the 3d inst., we took a trip to Petaluma in order to see the live stock on exhibition at the fair then being held. There were about 130 head of cattle, representing six different breeds.

Bement & Son had their well-known herd of Ayrshires on hand, as also had Dr. Dixon of Sacramento, 11 head of his Polled Angus cattle, in good condition, being the most beefy-looking lot on the grounds. Next was a lot of some 20 head of Red Polled cattle exhibited by Messrs. Meecham and Fritch. These were an even, all-alike lot of cattle, and in nice condition throughout. We had expected to see them a somewhat heavier class of cattle than we found them to be and also were a little disappointed in not seeing some of them with good, big bags of milk, as the breed has some reputation in that line, but suppose this is the dry time of the year with cows, as well as grass. For that reason we probably expected more than the circumstances warranted.

The above three breeds had a "walk over" as regards the premiums, there being no others on exhibition of the same breeds to compete with them. There were two herds of Jerseys, one belonging to Mr. Geo. D. Campbell, a nice lot on the whole, and the other to Mr. Ward. The latter herd was not in as good condition as the former, nor as good as we have generally seen Mr. Ward's cattle looking, but we were given to understand that he had left some of his best at home getting ready for the State Fair.

There was a better show of Holstein, than of any other breed, the majority of those on exhibition being in good enough condition for a milking breed of cattle to be shown in. Then there was all the required evidence of milk in many of the cows and heifers, at any rate there were some big udders among them. The two herds belonged respectively to Messrs. J. H. White and F. H. Burke.

We now come to the Shorthorns, which were represented by cattle belonging to M. D. Hopkins and John Lynch, both of Petaluma. We had fully expected to see the Cotate ranch herd represented, but in this we were disappointed. There were a few good cattle among those exhibited, but on the whole they were not in as good flesh as visitors generally expect to see such, as show cattle, neither was the lower condition atoned for in any way by a single *big bag of milk* in the whole lot.

There is a good deal of discussion nowadays about the advisability of keeping general-purpose cows or special-purpose cows; each has its place and in due time will find it wherever wanted. As the claim of general-purpose is held for this breed when the dairy qualities have been encouraged and developed, as they have been in some few herds, there should be a show of either milk or beef, and occasionally milk *and* beef in the same animal, when a public exhibition of mature animals is made.

Evidently the exhibitors ot the Petaluma fair do not put in practice, the theory which some put forth, that the "feed is half the breed." It is nevertheless true that a breed will quickly deteriorate and run down for want of proper feeding; in fact there is no surer way of breeding out the thoroughbredness of a herd.

Thriftiness is a cultivated hereditariness in cattle, brought about by selection and good feeding through several successive generations, it may have been five or fifteen, but so easy is the down grade to travel that it takes but one or two generations, under careless management, to get back to the original, uncultivated unthriftiness of the scrub, and that of the worst kind; for the cultivated plant left to run wild can never hold its own with one of the same species that has for all time been struggling to maintain life against the aggressiveness of a thousand and one other plants equally hardy.

Thus it is with animals that have for some generations been dependent on having food provided for them, it becomes a fixed habit in the breed, whatever it is, therefore, those who buy good, well-bred cattle of any breed, that have this habit bred into them, should, by careful selection in breeding, and generous keep, (not pampering, as for obesity) endeavor to maintain that habit. It is a profitable one, in that it gives a good return for food consumed, which is the end aimed for by all good breeders.

DRAFT HORSES.

We did not see a parade of all the horses but merely the tail end of the Saturday morning's parade of the premium horses.

It is hard work to find out and see all the horses when shut up in box stalls, but in company with one of our best importers and breeders of this class of stock, we tried our best to do so, but in vain, as we were afterward told. Having no guide or instructor in the shape of a catalogue, there is no wonder if we did miss seeing some of the best, our informant said. However, considering the reputation the district has had for such a number of years, we did expect to see a better and larger show of heavy horses, especially of brood mares and young horses bred in the district. There can hardly be a doubt about them being there. Would that their owners would bring them out in true showyard form and help to sustain the reputation of the district as having a larger number of good draft horses in proportion to the size and population, than any other in the State. There were a few good imported stallions, of the Shire, Clydesdale, Percheron and Suffolk Punch breeds.

The last named appears to find favor among farmers wherever tried, as a strong, active horse for all kinds of work on farm or road. He is equally at home in deep or light plowing, at heavy pulling or in long journeys with a load behind him, to the farmer, standinfi in the same relation to a general-purpose horse among horses as the Shorthorn does in cattle. There is vitality, size and action, with some spare strength for extraordinary occasions, which all work-horses should have in their respective labors.

THE JOURNEY THERE AND BACK.

We were very much pleased with this part of the day's pleasure, and noted with some degree of interest the signs, here and there, of development in the dairy husbandry, but especially in that most profitable branch of selling milk. On our return journey in the evening we counted milkcans enough on the boat to hold over 1000 gallons coming to San Francisco.

This amount of milk is probably from not less than 1000 cows, but more likely 1200, which have to be fed and provided for with milk-producing food.

Some efforts in this direction were shown forth in sundry patches of corn and beets growing on the choicest pieces of land. We cannot say that any piece we saw of either crop looked as if it had been done justice to in management. "The man with the hoe" evidently had not been there in any profitable form, and the ground had all the appearance, as far as could be seen from a moving train, of *not* having had that "stirring up" which is necessary to not only prevent the growth of weeds, but to conserve moisture for the growing crop.

The corn was planted too close by one half or more for growing to the best advantage in both quantity and quality. By planting in rows farther apart, and a little thinner in the rows, a crop would be produced with taller and thicker stalks, green to the ground, and producing some ears which, when well formed, is the right time to feed the whole crop. At this stage of growth it is sweeter and more nutritious, weight for weight, than at any other previous time, and much superior to the dried up, brown-at-the-bottom-looking stuff one so frequently sees being fed out.

The beets also appeared to lack development in growth for the same reason—that of being too thick on the ground. As the late Mr. Mechi used to say when advocating the thin seeding of wheat, "There is no greater enemy to a wheat plant than another wheat plant." So it is in a measure with beets, all plants of the same kind requiring similar food. Yet we prefer to except weeds, considering them the worst enemies, and they should not have a chance to get above ground among a crop of beets in the dry, summer climate of California.

Another great fault is putting in the crop too early, before the heaviest of the rains are over, and these, falling upon the newly-planted ground, start the weeds, which will flourish above all things else in damp, cool weather, when it is difficult to kill them when one tries to do so. If the ground is kept in such a state of thorough cultivation early in the spring, so as to check all growth of weeds by stirring the ground and killing them soon after the seed is sprouted, after the last plowing, there will be little, if any, trouble, with weeds among the young beet plants when most difficult to handle. VISITOR.

THE FIELD.

Cultivation for Moisture.

HUENEME, Ventura Co., Sept. 5, 1892.

TO THE EDITOR:—"Cultivating for moisture" is a subject to which I have, from necessity, given both thought and experiment. Within my experience it is a matter on which most California farmers go it blind, and I have been obliged to work it out in some detail. I believe my conclusions to be correct, but they may at least be suggestive and help to clear up the mind of some confused seeker after truth in this matter.

To begin at the beginning: I believe in deep-plowing for all soils, light and heavy. Not necessarily throwing over with the mold-board, but breaking and loosening the soil and letting in the air to a depth never less than nine inches; better 15 or 20. If this be done early in the season every drop of rain is taken up as it falls, and, besides the chemical benefit of the aerating, the moisture is all absorbed. Whatever the nature of the soil, *early* deep-plowing stores up moisture. Then, having gotten the moisture in the soil, the next step is to retain as much as possible through the dry season.

Firm soil, whatever its nature, retains moisture better than loose soil, and the more solid the ground is in April, the better will it hold moisture through the summer. But as even the most compact soil will lose largely through evaporation this must be prevented, as far as may be, by some covering or mulch, and the most convenient mulch is a layer of the soil itself. The efficacy of this layer in preventing evaporation is inversely, as its porosity; if the soil be heavy, adobe in nature, and in fine tilth, a shallow layer is enough; if lumpy, or loose and light, the mulch layer must be deeper. Right here comes in much of the confusion in discussing this subject. The loose top soil or mulch is not active soil at all, it is a mere blanket; the active soil in which the plant does its growing is the firm bed of moist soil below the mulch. Once the rains are over, the cultivator ought never to disturb this moist soil, unless it be to cut off a slice to be converted into mulch, or, in sandy soils, to prevent hardpan; but the cultivator ought to stir the mulch or blanket soil just as often as there is any tendency on its part to run into or become part of the moist soil below it, for thereby the blanket becomes too thin.

To my mind there is no question of the great benefit of early deep-plowing. The points which depend on soil quality and call for judgment are: 1, the settling of the ground to compact it; 2, the thickness of the mulch layer, and 3, the tendency of this mulch layer to compact with the moist soil below it.

First. Packing to retain moisture. The firmer the ground the better it retains moisture, but if too firm roots cannot penetrate it freely and secure the air necessary to their growth. The practical aim is to get it just so solid that it will not retard root growth. In clayey soils the rain alone will sometimes settle the soil too much, and it must be loosened up for the roots' sake. Loamy and sandy soils nearly always require artificial packing. The California farmer is prone to secure this solidity by shallow-plowing. This gives him the desired solidity, but he loses the chemical benefit of oxygen and his ground fails to absorb much rainfall, and sometimes in stiff soils his seedbed is too dense for the young roots.

Occasionally he tries deep-plowing, but follows it by the same harrowing that followed the shallow work. This leaves his soil too loose and it dries out rapidly. In my opinion, the absence of the splitting action of frost in this State renders deep-plowing of the greatest value, but, before evaporation begins for good, the soil must be firm and solid to carry the moisture.

Second. The top mulch layer. In heavy soils worked fine a very shallow layer of soil is enough, but as the soil lightens and becomes sandy, this layer must be deeper because such soil is much more porous. Sandy loam is, in my experience, a very difficult soil to handle in this respect. The mulch is extremely porous and I have had the moist soil hardpan under a top mulch layer six inches deep. My present plan is to begin the summer with a three-inch mulch, as near as may be, and then cultivate alternately deep and shallow. The deep cultivation breaks the forming hardpan and the next shallow drive compacts it again, some of the soil going back to the moist ground, some becoming mulch. In this way, hardpan can be prevented until September and often later. To cultivate such soil at one depth, either deep or shallow, invariably makes hardpan at that depth. Heavy soils do not hardpan in this way, and with them the mulch can be, and indeed must be, kept distinct from the moist soil by cultivation.

Third. Preserving the mulch layer. In sandy, light soils the tendency is for the moist soil to hardpan below the mulch layer; in heavy soils, the tendency is for the mulch layers to run into and become part of the moist soil. Summer cultivation in the former must be directed mainly to preventing hardpan; in the latter, to keeping the top layer loose and free from the moist ground below. It ought therefore to be done as often as either of these ends require.

All this is entirely independent of weed growth. Weeds are the worst moisture thieves of all, and, as a rule, but not always, they are a good guide in the work; but killing weeds and preserving or securing moisture are in themselves entirely distinct processes. As the seasons go in this State, the two processes can generally be combined. My own practice is to plow deep before Christmas, and then, whenever the weeds show, cross the land with a cultivator carrying V-shaped weed knives. These kill the weeds and settle the soil, and generally, but not always, by the time the rains are over the ground is left clean of weeds and of the right solidity, with a dry top layer of two or three inches. In preparing for broadcast grain, it is often necessary to cross perfectly clean soil in order to settle it to the necessary firmness, and if it be early grain, a good harrowing when about six inches high will both prune and help the shoots and tend to preserve the desired mulch. On late grain the risk of a norther makes the treatment dangerous, but if one is sure a norther will not come, or is willing to take the risk, he will find that such a harrowing will do great good.

Spring plowing, especially late spring plowing in California, is, in my opinion, extremely bad practice. The soil is left solid through the rains when it ought to be porous, and is loosened up when it ought to be solid. It can be immediately packed again, but nothing can bring back the rain that has run off and would have soaked in had the ground been loose and open. A. GUILLOU.

[A very clear and satisfactory statement; let us continue this discussion of principles and practice. Nothing could be more interesting or industrially valuable.—ED. PRESS.]

THE Chino beet sugar factory, Los Angeles Co., has turned out this year 2,870,059 pounds of sugar. Of this quantity 516,000 pounds was from the syrups of 1891, and the balance was from this year's beet crop, 2,352,059 pounds. About one-half of the entire quantity is crude sugar, which will run between 80 or 90 per cent sugar. Upon this the Government pays 1¾ cents per pound bounty. The other one-half is raw sugar that has gone through a centrifugal machine. From present indications, this year's beet crop will amount to about 50,000 tons. For every ton the grower will receive on an average $4.50. This year 40,000 acres have been planted to sugar beets, as against 2700 last year. This year the beets run about 15 per cent sugar, as against 13 per cent last year.

J. E. SHAFFER, of the La Punta Salt Works, San Diego County, has shipped twenty tons of stock salt to an ice company at Riverside and fifty tons to San Diego, during the last month. Orders have been received for thirty tons of salt to be used in fish-packing at San Diego. The salt is shipped from La Punta to San Diego by sloop.

THE HOME CIRCLE.

The Swallow Sings.

Written for the RURAL PRESS by LILLIAN H. SHUEY.

I have just found out that the swallow sings.
I had never known that this common bird,
In the tender twilights, might be heard
As he cleaves the air with his pointed wings.
Always and ever the song for me
Was the song of the richest melody.
I had always felt as I upward pressed,
On the heights alone could my heart find rest.

But I have found out that commonplace things
Are fraught with the purpose of life and zest;
And full of the joy that striving brings,
Even lowly ways are lovely and blest.
There's many a pause where my heart can rest;
I have just found out that the swallow sings.

Irony.

I set my gaze upon two stars that seemed
Twin orbs of equal flame in heaven's dark height,
So close with interblended rays they beamed
From the deep dome of night.

"O happy stars," I thought, "like this to bide
Though mighty changes, lovingly withstood,
Companioned each of each, whate'er betide,
In silver sisterhood!"

Then sounded to my sense, from night's great thrall:
"On either star, this hour, there dwells a race
That knows not if the other lives at all,
So vast their sundering space!"

—Edgar Fawcett.

Sky-Rain.

Far on the meadow the grass-blades are crying;
Hark! in the valley the lilies' low sighing!
Vain is my watering, lost my endeavor;—
Thirsty, our roses go drooping forever.
Sweet rain! Sky-rain!
Descend in thy beauty, O gracious sky-rain!

Gray, on the mountains thy swirls are created,
Silvery veils in the lowlands awaited,
Fall in your softness, ethereal showers!
Visit us, pity our August-burnt flowers,
Scorched on the plain;
With rescue and healing, O come, dewy rain!

Bring us the sweetness of regions supernal,
Pure as the shining of planets eternal!
Fail us not, leave us not, quivering grasses,
Parched unto death on Earth's dreary morasses!
We suffer in vain,
Unless thou refresh us, O blessed sky-rain.

Rivers of Grace, glimmer on from the mountains,
Fed at celestial, mysterious fountains!
Human expedients fail in our sorrow,
Feeble, to-day,—the mirage of to-morrow;
But thou dost remain,
A permanent blessing, O pearly sky-rain.

Life has its deserts all burning and glaring,
Torrid with bitterness past our own bearing;
Fall on us faintly, like shadows of even!
Cool our hot faces, sweet Spirit of Heaven!
O silent sky-rain!
Our souls are athirst for thee, precious sky-rain!

—Caroline D. Swan.

The Sexton's Story.

For some time I had heard the ominous muttering of the distant thunder, but had been so absorbed with the beauties of the scenery that I had not realized the fast approaching shower till the first great drops which herald the coming tempest pattered around me, now and then one striking me and going through my thin summer coat.

I looked up and saw that I was just passing the gate of a country cemetery, and a short distance from the gate I espied a clump of trees, under which I thought I might find temporary shelter from the dash of rain that I knew would soon be upon me.

Passing through the gate, I went up the pathway a short distance and discovered a rustic house in the centre of the group of trees which I had seen from the road. I started toward this house, when a flash of lightning nearly blinded me.

When I recovered from the shock, the clouds had gathered so thickly that I peered into darkness as I approached the rustic house. As I was entering the door an apparent apparition arose before me, and I started back at the sight of an old man, all in white, with a long, snow-white beard and hollow eyes, who looked as if he might be the tenant of one of the old graves near by.

But a welcome from him, uttered in a very pleasant voice, reassured me, and I entered just as the shower burst in all its fury.

As I took a seat beside the old man, he said:

"Rather a dismal place to be caught in a thunder shower, isn't it?"

"Well, yes," I answered, "it is so. I am glad I have company. But how happened you to be here at this time? if I may ask."

"Why, certainly you may ask such a question. I am here to prepare a place for one of my tenants. You see I have been sexton of this cemetery for 40 years, and I have come to look upon all the inmates as my tenants."

I looked a little way from where we sat, and the pile of fresh earth indicated the place where he had made preparation for the new tenant.

Another blinding flash of lightning made me involuntarily start, and as the peal of thunder which followed died away, I said:

"Forty years! that's a long time. I suppose you could tell some interesting stories from your experience here?"

"Yes," answered the old sexton; "if I had the faculty of story-telling I could find enough to make many stories."

"Whose grave are you making ready now?" I queried.

"Mrs. Trescott's," he said, in a musing manner, and I asked:

"And who might Mrs. Trescott be?"

The old sexton sat in a study for a moment, and then replied:

"Who was Mrs. Trescott? Well, I'll have to begin at the beginning. Sixty years ago Thomas and Robert Edmunds came to this town from England. The two men were brothers and had married sisters Thomas, the eldest, was a widower with one daughter, three years of age. Robert's wife was an invalid, and their family consisted of a son, also three years old.

"These two brothers built those two house that you can get a glimpse of over the tops of the trees yonder. The houses stand side by side, and in the rear between the two stands a gardener's house, where lived Richard Trescott, a gardener whom the Edmunds brothers had brought with them from England. Richard Trescott's wife was a thorough lady, and they had one son, Richard, Jr., four years of age.

"The two brothers built the large woolen mill which you passed just below here, and for many years the business went on. The brothers intended that Edward and Alice should wed at an early age, and the property thus be kept in the family.

"Richard Trescott had been gardener for the family for many years in England, and had succeeded his father, and so he had grown up with the brothers. It was only natural, therefore, that little Richard should be the playmate of Edward and Alice.

"All was well for several years, but when the cousins were 12 or 13 years of age a slight trouble commenced. Edward had a hasty temper and an overbearing disposition, and so, on account of his superior standing and the knowledge that Alice was his intended wife, a jealousy was aroused by the strong friendship between Alice and Richard, and this jealousy had frequent outbursts.

"Young Richard was a manly fellow, and stood Edward's insults in a calm and quiet manner, never resenting any of his indignities.

"Matters went on thus until Edward and Alice were 16, and by this time the young man had become so exasperated that he told his father of the state of affairs Thomas was soon informed, and a stormy scene ensued. The result was that Richard Trescott was obliged to leave the employment of the brothers and so leave the town.

"Soon after this, Thomas, the elder brother was taken seriously ill and, fearing that he might not live to see the union of his daughter and her cousin, he endeavored, by the most urgent persuasion, to make her promise that his desire should be realized on her 21st birthday.

"For a long time the girl refused to comply with this demand, but at length, when it became evident that her father could not recover, she consented.

"And so Thomas died, and it was understood that his will provided that in case Alice died before she was 21, her half of the property should go to Edward, and in case she passed her 21st birthday without marrying her cousin he would take the property the same.

"As Edward grew older he showed signs of dissipation, and after a few years it became a common thing for him to go home at a late hour in the night, very much under the influence of liquor. A path ran up through the cemetery where that driveway is, and this made a short route from the village below to the Edmunds mansions on the hill. This path Edward used to travel when returning from the village.

"As Alice's 21st birthday drew near Edward became anxious for the wedding, and it was said that when partially intoxicated he urged Alice to set the wedding-day a year sooner, and made himself so obnoxious that it was only her promise to her dead father that prevented a positive rejection.

"At length the time drew near for the important event. Just a week before Alice's birthday I had dug that grave by the side of the path where that tall monument stands. I finished the digging just before night, for the burial was to take place early the next forenoon.

"During the night we had a heavy thunder shower, and in the morning when I came down everything looked unusually bright in the clear morning sunlight. I came up the path and started back in astonishment to see a man lying in the bottom of the grave. On close examination, it proved to be Edward—dead. He had probably wandered aside from the path in the darkness, and falling, his head had struck the opposite side of the grave, breaking his neck.

"I hurried down to the village for help, and there I found great excitement prevailing. Squire Edmunds' mansion had been struck by lightning the night before, and both the old gentleman and his invalid wife had been killed. One chimney was demolished and the end of the mansion badly shattered, but no fire was discovered.

"We carried Edward home, and the three bodies lay in state till the day of the funeral, when all were buried in the lot over there on the hill.

"At the funeral, Alice was accompanied by a fine-looking young man who was a stranger to all the townspeople. Many conjectures were made as to who this stranger might be, especially as he rode home with Alice in the Edmunds' carriage.

"The next day after the funeral Alice received a note from the lawyer summoning her to call at his office.

"'Good-morning, Miss Edmunds,' said Lawyer Atwood, as Alice appeared in answer to his summons; 'I beg pardon for intruding in the midst of your sorrow; but there is a matter of business which must be attended to very soon. I believe your 21st birthday will occur next Monday, will it not?'

"'Yes, sir,' answered Alice.

"'And I suppose you understand that the desire of both your father and your uncle was that you and your cousin Edward should be married, and so keep the property in the family?'

"'I do,' Alice replied.

"'Now,' continued the lawyer, 'your Uncle Robert's will provides that Edward shall inherit all his father's property at the age of 21. In case he died before that age, it should come into your possession on your 21st birthday. That gives your uncle's half of all the property to you next Monday. But your father's share stands in a peculiar manner. In case of your death before the age of 21, it was to go to Edward; that part of the will is clear; but knowing that the objection to the union was all on your part, and wishing to make this union sure, your father intended to make provisions that if you passed your 21st birthday without marrying Edward, the property should pass into his hands. Of all this you are aware, but your father also willed that at Edward's death your portion of the property which he had inherited should go to the town to found a hospital and a public library.

"'According to these provisions, you would inherit your uncle's part of the property next Monday, and your father's part would go to the town.'

"Here the lawyer hesitated a moment and then continued:

"'I don't like this way of forcing young people to marry against their will, and I don't think a promise wrung from one at such a time as your promise was made, should be binding. I have studied your father's will carefully, and I find that the language used in the document leaves, by a technicality, one chance for you to acquire the whole property.

"'The will provides that if you pass your 21st birthday "without marrying," the property shall go to your cousin. Now, by a slight oversight, it does not specify whom you shall marry.'

"And with a pleasant 'good-morning,' the lawyer bowed Miss Alice out.

"The next Sunday there was a quiet wedding at the mansion on the hill, and it then transpired that the young stranger was Richard Trescott, Jr.

"And so the property was kept together, and Richard and Alice lived in the old house surrounded by a family of boys and girls."

Here the sexton paused and appeared rapt in memory. At length I broke his reverie with the question:

"And so the new grave is for Alice?"

"Yes," he answered, "for Alice, dear Alice. It was her last request of me that I should dig her grave myself."

"And what became of the gardener?" I asked.

"Oh! yes, yes, the gardener," he said, as if he but half understood my question. And then rousing himself, he said: "The gardener; well, you see Richard went to college and then my wife died, and I couldn't bear to be alone, and so I came back and became sexton of the town. Here I could be near the old home, and Alice always came to see me often, and my life was happy, until Richard came to live in the old mansion and I could call Alice daughter, and then I had the old house again. But I could never give up the care of the cemetery."

As the old sexton ceased speaking, the sun burst out again, and, bidding him good-day, I sauntered fourth on my ramble over the old town where I was passing my summer vacation. — David G. Davidson in American Cultivator.

Was Eve a Blonde?

It almost goes without saying that a well-bred woman does not dye her hair, writes Mrs. Mallon in "Some Suggestions About the Hair" in the July *Ladies' Home Journal*. If in some moment of, I was going to say, temporary insanity she should be induced to do it, although it would be mortifying, and she will have to permit herself to look like a zebra for a short time, still it will be wisest to face the situation and allow her hair to grow back to its natural color. The fancy for blonde hair, which has been credited to the fact that the beautiful Empress of the French possessed it, may really be traced as far back as history goes. It is always said that Eve was a blonde, while the hair of Venus was, so it is told, a perfect golden. Lucrezia Borgia, Lady Macbeth, Queen Elizabeth, Anne of Austria, Marie Antoinette were all light-haired. However, this does not make less marvelous the beauty of black hair, which from the jet black, which shines like ebony, to the dark-brown with its glints of gold, cannot be surpassed. The explanation as to the difference in the hair is told very funnily in an old book. It is said: "That heaven sent upon earth many women with golden hair so that they might charm the other half of humanity. Seeing this, the devil, who hates men, sent cooks. These, with their sauces and ragouts, disordered the human liver and produced the desired result—dark skin and hair." However, the color most esteemed just now is an ashy blonde—a shade that no dye will produce, and which, as it must have a clear white complexion accompanying it, as well as black brows and lashes, is counted by artists at once the most peculiar and artistic contrast. All hair is beautiful that is well cared for, and if it be remembered that smooth crimps are best suited to dark hair and fluffy ones to light, not so many mistakes will be made in arranging the coiffure.

What Is Home?

Here are a few of the definitions of home, selected from a collection made by an enterprising London exchange:

The golden setting in which the brightest jewel is "mother."

A world of strife shut out, a world of love shut in.

A grand old mirror through which both sides of us are seen.

The place for a married man after business hours.

The father's kingdom, the children's paradise, the mother's world.

A hive in which, like the industrious bee, youth garners the sweets and memories of life for age to meditate and feed upon.

The place where the great are sometimes small and the small often great.

The only spot on earth where the faults and failings of fallen humanity are hidden under the mantle of charity.

That source of comfort which youth does not fully appreciate, which young men and maidens lovingly desire; which the middle-aged generally possess, which the old rightly value.

An arbor which shades when the sunshine of prosperity becomes too dazzling; a harbor where the human bark finds shelter in the time of adversity.

Home is a person's estate obtained without injustice, kept without disquietude; a place where time is spent without repentance, and which is ruled by justice, mercy and love.

HOUSEWORK AS AN EXERCISE.—To keep the complexion and spirits good, to preserve grace, strength and agility of motion, there is no gymnasium so valuable, no exercise more beneficent than sweeping, dusting, making beds, washing dishes and the polishing of brass and silver. One year of such muscular effort within doors, together with regular exercise in open air, will do more for a woman's complexion than all the lotions and pomades that were ever invented. Perhaps the reason why housework does so much more for women than games, is the fact that exercise, which is immediately productive, cheers the spirit. It gives women courage to go on living, and makes things seem really worth while.—Medical Record.

A City Woman's View of Two Homes.

Florence was tall and slender, with dark-brown, velvety eyes that never seem to rest and blonde hair that might have belonged to some daughter of the sun. No ill-fitting frock could hide the beauty of that face. We went out for a little drive, and then the girl talked; she said: "I suppose I am all wrong; I suppose if father and mother knew, they would think it's dreadful, but I have gotten so I don't believe in anything or anybody. It's work most of the time, and see how much you can save the rest, and mother says I will see the advantages of it when she is dead, but I would rather see it now. I don't know what I want; I just want to get away from here. Yes, I do know what I want; I want some pretty clothes, and I want somebody to tell me I am pretty. I expect you think I am dreadful, but somehow I don't seem to care." The drive was not a particularly pleasant one. That night the future seemed to come to me, and I saw a mother weeping for a daughter who was not, and who had been driven from her simply because she had saved a few dollars that might have been spent in giving her pleasure, and which would now do her no good, for she had gone where her pretty face would find plenty of dollars for her. No love had been implanted in her heart, and she would soon forget the people in the country village.

The next day appeared another caller. Her frock was made with an entire disregard for style, but with a beautiful consideration for comfort. The greater time she talked to me she laughed, and, as the sweetest sort of an introduction, she brought me a posy of all the sweet-smelling flowers that grow in a country garden. She said: "People say I take life easy. Well, perhaps I do, but the children like it, and, if we ain't saving up any money, we are making them have a good time now; they are going to have a dance this evening; won't you come over?"

I said I would. When we got there I found a party of young, merry people; I found a round table covered with magazines and newspapers of the day, and I found that most delightful of all things—a hearty welcome. One girl played the piano and the rest danced, while my escort looked at the magazines on the table. They were going to get up a Virginia reel, and when I said I did not dance any more, I was laughed at and told that father and mother always came into that, and of course I must. So father and I stood at the head, and mother and a small boy of seven at the foot, and we danced away as if we had never danced before. Then we had ice cream and cake, which the girls made, and it was iced cream—there was no cornstarch in it—and after we went away my escort told me that all the girls of that house were engaged to be married—engaged to city men; and that, while some people who were very strict thought that mother did not hold a tight enough rein on the boys and girls, still they seemed to turn out better and have a better time than anybody in the village. And I thought to myself, "O wise mother!" And in the future I seemed to see boys and their wives and babies, and girls and their husbands and babies, coming back to see mother; to tell her of their joys and sorrows, and to find in that mother heart a never-failing spring of sympathy.—Bab.

Chaff.

MOLLIE—I wonder why they married. He isn't rich, nor a foreigner; not even an English lord.

Dollie—No, and she hasn't any money, nor been on the stage, nor done anything like that; and her father is only a common American, not even a knickerbocker. I can't understand it.

Mollie (with a bright thought)—Perhaps—perhaps they were in love!

SHE—Just think, girls, I came over in the steamer with three live lords, and they were all single.

The girls (in chorus)—Oh, how lovely! And wasn't one of them engaged?

She—Not until the third day out.

A LAWYER sent a very heavy bill to a woman whom he wished to marry. As she made some severe remark on the matter, the lawyer replied: "I wish to show you how lucrative is the profession of a barrister. You can see for yourself in what a profitable business I am engaged."

THE CAUSE OF IT.—They buried the copper miner with due reverence, and the widow suggested, as a suitable inscription on the tombstone, "His work is o'er." But the stone-cutter thought that an error had been made in orthography and that it would be more appropriate to read, "His work was ore."

YOUNG FOLKS' COLUMN.

Baby's Story.

Written for the RURAL PRESS by AUGUSTA E. TOWNER, Santa Ana.

She was such a dainty, wee thing; three years old, but not so heavy and strong as her brother, who was a year and a half younger.

You see, she had had so much trouble. When she was five months old she had the whooping cough, and though she was a nursing baby she had it so hard—the doctor said the hardest he ever saw a child have it, let alone a baby. How it made her papa's and mamma's hearts ache when the coughing convulsions came on to see her delicate little frame so strained and racked.

When she was eight months old, crying would still bring on a bad fit of coughing, but at that age her papa decided it was best to go to California, so everything was packed up that wasn't sold, and poor, tired mamma, tiny baby, papa, and the big brother and sister traveled and traveled *three thousand miles* till they came to their California home.

But what do you think happened on the way? Why baby caught the chicken pox from another baby on the cars. The family were not comfortably settled in their new home when baby broke out with it, and right after that she had the *cholera infantum*. Papa and mamma thought they were going to lose her. But no; baby, though frail and wan, seemed to have a strong hold on life.

Perhaps it was all owing to that bright California sun. It was an unusually dry, sunny winter; most of that first winter baby spent in the golden State. Mamma remembers how, the 2d of January, baby sat outdoors playing on a piece of carpet, dressed in linens, a cap of embroidered lawn on her curly head and an open umbrella steadied over her that the sun might not beat down too fiercely on the dear little crown. Yes, it must have been the climate that enabled her to grow well and strong, spite of all—that and the chance to get outdoors in the sun and to play in the dirt, for mamma just would let her play in the dirt. She togged baby out in creeping garments of blue denam, and baby would crawl and crawl everywhere.

Once she tumbled into a furrow when her papa was plowing behind the house, and there she lay on her back, her little feet kicking the air, her little hands flying about trying to grasp something; and when the horses came along, by and by, to make another furrow, they stopped and stared. Then papa heard a funny little noise and *he* stared. My! but didn't he say "Whoa!" loud, and pick up baby quick and carry her into the house!

"Here's a tumble-bug for you, mamma," he cried, and mamma laughed, though when she heard all about it she was frightened too, and took good care such a thing didn't happen again.

When baby was old enough to understand, mamma told her all about how she fell into the furrow; then baby would go outdoors and hunt up the big beetles everybody called "tumble-bugs," and tip them over on their backs with a stick, and baby would watch the six black legs flourishing so helplessly about, and chuckle and say: "Poor 'ittle baby! Did 'ee fall into 'ee furrow 'n toodn't get out? Where's 'ee papa?"

When baby was a year and a half old her little brother was born. She had just learned to walk. After the little brother came, papa would say: "Little girlie, your nose is broken." Then "baby" would carefully feel of her nose with such a solemn, puzzled air everybody would laugh.

But "baby's" nose *was* sadly broken, as she soon found out, though she didn't know it by that name. The little brother proved a strong, imperious, troublesome fellow, who by no means took things as patiently and sweetly as "baby" had done. Everything had to "gee" when he fussed.

Thus "baby" was crowded down and out of mamma's lap—that place where she longed ever to nestle—and she would draw up her little chair and stare at her fat baby brother, nursing, nursing away, with that air of his as though no one in the world had any rights but he. She never wished there was no baby brother, but only that mamma was stronger and mamma's lap was bigger, so she could be there too, nursing, nursing away and wiggling her toes.

But bedtime! There was the great difference. "Baby" had so loved to have mamma put her to sleep and sing to her or tell her stories. Mamma was always too tired to do it now. "Baby" had to tell them to herself, and by and by to her little brother. Yes, he would be laid beside her—mamma had headaches nights or else had to work—and "baby" would pat him and tell *him* stories.

Such stories! such extraordinary incidents! such transitions and change in personalities! Mamma had to laugh, no matter how tired she was or worried; they were so funny, so imaginative for such a little girl.

One night, when "baby" was three years and almost three months old, and the little brother was about twenty months old, mamma laid him by his sister in one bed. Then "baby" began to pat him and talk. He lay just as still, while her voice flowed on sweet and clear. Mamma took a paper and a pencil near (she had been a stenographer once), and took "notes."

This is what baby was saying: "There was a dog, and he went outdoors and found a bone with meat on it. But the meat was all inside, and he gnawed and gnawed the meat out, and some Woss (Ross, neighbors of theirs) dogs came along to bark at him; but somebody came along and he had a whip, and he struck the Woss dogs, and they ran away into the woods, and into the house, and the dog he went on to walk; and he came to the woods and he saw some foxes, and they had wings and they flew up in a tree, and the *big* fox he laid some *big* eggs, and the *little* foxes they laid some *little* eggs, and the *big* folkses looked at the *big* eggs and were 'stonished, and the *little* folkses looked at the *little* eggs and fawt (thought) they were *so* cunning. And the folks were girls, and they were Stella and Hattie and Fannie, and they went on walking till they came to a peach tree, and they said: 'Let's pick some peaches for supper.' And they were their papa's peaches, and they picked some ripe ones; but Dickey he picked some hard green ones, and Hattie said: 'Dickey, what makes you do so? Papa won't like it.' And Dickey said: 'I shall.' And Hattie she ate her ripe peaches, and they were so nice and didn't make her sick; but Dickey ate his hard, green ones, and O-o o!. And Dickey he went along the woad (road) and he saw some ducks, and he said: 'I should like to catch those ducks and put them in a cage, and hear them make a noise.' And some bulls (in her rides to the ocean across the *mesa* "baby" had seen many strange animals to wonder over) and rams and bears and a skunk came along, and when they came to a tree the rams went up the tree, and the big strong bull says: 'What for you go up that tree?' And the ram says: 'Oh, I am so hungry, and I went up the tree 'cause I wanted something to eat!' And the big strong bull says: 'Here, I've got some bread and butter left that the little bulls don't want. Come down and you can have it.' And the ram said: 'We are afraid the little bulls will hurt us.' And the big bull said: 'I'll hit 'em if they try to, and won't let 'em hurt you, for I am a big strong bull, and I can do it.' And the ram said: 'Oh, won't that be nice for you to hit 'em! We are so hungry and we'll come down,' and so they came down."

The little brother had dozed and waked and dozed again. Before the hungry ram came down from the tree he was sound asleep. Rising on her elbow, "baby" looked over his chubby gown at her mamma—looked with sleepy, loving, longing eyes. And mamma? Well, she took her little three-year-old daughter in her arms, cuddling her, patting and petting her, with passionate kisses between. Happy "Baby!"

This is a true story. I can show you the battered, tumbling to pieces "every-day" book, which has been lying in a corner of mamma's desk for years, and which contains her "notes," and after them the name and age of "baby" and the date of "Baby's" story.

DOMESTIC ECONOMY.

Eggs, and How to Cook Them.

Eggs are such necessary adjuncts to the family larder that the good housekeeper is seldom, if ever, without them.

There are many dainty dishes, of which eggs form an important part, which are easily made.

Egg Balls—Boil eggs hard, cut in half, and take out the yolks, and mix with a few bread crumbs, chopped meat, melted butter, cream and salt and pepper. Mold into balls the size of an egg yolk. Put one in each half of the egg whites, set in a pan, and pour over them a teacup of cream. Sprinkle over some bits of butter, and brown in the oven.

Curried Eggs—Mince a small onion very fine, and brown it in a tablespoonful of butter in a hot frying-pan. Mix a heaping teaspoonful of curry powder with a half cup of milk, pour into the pan and let it boil until thick; break the eggs in carefully and poach them in the mixture. Squeeze a little lemon juice over them before serving.

Poached Eggs with Cream Sauce—Break fresh eggs into boiling water slightly salted. When set, remove from the water with a skimmer and pour over them the cream sauce: One teacup of sweet cream, a little chopped parsley, a tablespoonful of butter and a tablespoonful of flour mixed smoothly together, and salt and pepper to season. Boil three minutes and pour over the eggs.

Fricasseed Eggs—Boil a dozen eggs ten minutes. When cold, peel and slice. Season some grated bread crumbs with salt, pepper and nutmeg, and beat the yolks of three raw eggs very light. Dust the eggs with flour, then dip into the beaten eggs, then into bread crumbs, covering well on both sides. Fry in hot lard.

Scalloped Eggs—Break eight eggs into as many saucers, sift bread crumbs over each, dot with butter and season with pepper and salt. Fill the saucers with milk, bake till the eggs are set and serve hot.

Baked Eggs—Separate the whites and yolks of six eggs, putting each yolk by itself in a cup. Add to the whites a saltspoonful of salt and a quarter of a saltspoonful of pepper; then beat them to a stiff froth, spread them on a buttered dish, and slip the yolks on top, laying them a little apart, and bake five minutes in a hot oven, or until they are a light brown. Dust pepper and salt over the top and serve hot.

Scrambled Eggs—Melt one tablespoonful of butter in a saucepan. Beat four eggs light, and add a half teaspoon of salt and turn into the pan. Stir over a hot fire one minute and serve.

Fried Eggs with Pickles—Put enough butter into a hot frying-pan to entirely cover the pan, break in as many eggs as it will hold, dust them with pepper and salt, cook to the required degree, and put them on a hot dish; meantime chop a large pickle fine and put it in the pan after the eggs have been taken up. Leave one minute, then put it on the eggs and serve at once.

Eggs a La Creme—Boil six eggs hard and chop fine. Put layers of egg in a dish with alternate layers of bread crumbs. When the dish is full pour over it one pint of boiling milk, seasoned with salt, pepper and butter. Bake a light brown.

Eggs a La Suisse—Spread the bottom of a dish with two ounces of fresh butter; cover this with grated cheese, break eight whole eggs upon the cheese without breaking the yolks. Season with red pepper and salt, pour a little cream on the surface, strew about two ounces of grated cheese on the top and set the eggs in a moderate oven about 15 minutes.

Steamed Eggs—Butter a dish and slide upon it six eggs broken as for poaching. Strew over them small pieces of butter. Set the dish over a pan of boiling water and turn another dish over it. In about four minutes the whites will be set, then sprinkle with salt and serve.—Margaret Palmer in American Cultivator.

NEWBERN HOMINY.—Put one cup of fine hominy in the double boiler with one cup of cold water. Let it remain on the back of the stove until the water is absorbed. Then add one pint of milk and half a teaspoon of salt, and boil half an hour. Stir in one tablespoon of butter and turn out on a hot platter. Serve with poached eggs.

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A cream of tartar baking powder Highest of all in leavening strength.—*Latest U. S. Government Food Report.*

The Acids of Fruits.

We know that many vegetable and fruit products are esteemed rather for their pleasant or refreshing taste, and for their antiscorbutic properties, than for any nutritive value which they may be assumed to possess. Yet even fruits of that character are especially valuable as additions to our daily diet, on account of the potash salts and mild vegetable acids they contribute to the blood. We learn from Johnson's *Vegetable Food of the World* that the grateful acid of the rhubarb stalk arises from the malic acid and binoxalate of potash which it contains. The acidity of the lemon, orange and other species of the genus citrus is caused by the abundance of citric acid which their juices contain; that of the cherry, plum, peach, apple and pear from the malic acid in their pulp; that of gooseberries and currants, black, white and red, from a mixture of malic and citric acids; that of grapes from a mixture of malic and tartaric acids; that of the mango from citric acid and a very fugitive essential oil; that of the tamarind from a mixture of citric, malic and tartaric acids; the flavor of asparagus from aspartic acid, found also in the root of the marshmallow; and that of the cucumber from a peculiar poisonous ingredient, called fungin, which is found in many species of fungi, and is the cause of the cucumber being objectionable to some persons.

It will be observed that rhubarb is the only product which contains binoxalate of potash in conjunction with an acid. It is this ingredient which renders rhubarb so wholesome at the early commencemet of the summer, though in certain cases, known to medical men, its use may be injurious.

The following table, compiled from some analyses by Prof. Berard, shows the percentage average chemical composition of five unripe fruits and of eight ripe fruits, comprising apples, pears, gooseberries, grapes, plums, cherries, apricots and peaches:

	Unripe	Ripe.
Water	85.7	78 7
Albuminoids	0 7	0.6
Sugar	4.0	12.9
Vegetable acids	1.5	1.3
Pectose and gum	4.3	3 7
Cellulose, etc	3.8	2.8

The data thus given show that there is a considerable decrease in the watery particles of fruit as it approaches its full ripe character, resulting in a difference of 7 per cent, while the sugary constituents increase during maturation in a corresponding degree, rising from an average of 4 to nearly 13 per cent.

There is very little actual decrease in the percentage of acids from the green to the ripe stage of fruits, but the acidity becomes neutralized by the increase of sugar as the fruit approaches maturation.

Many persons know from experience how much more pleasant and agreeable fruit is when gathered and eaten direct from the tree. This is undoubtedly in part due to the freshness and briskness of the vegetable acids contained in the fruit, which, when so gathered and eaten, have not time to change into any other substance. Stale fruit, on the other hand, is unpalatable from the very fact that it has lost this pungent and brisk taste.

Pectose forms the substance known as vegetable jelly, and it is to this constituent of ruit that jams owe their firmness. Cellulose is the fibrous part of fruits, and it is in this portion that we should find the largest proportion of mineral salts, potash, etc.—The Gardener's Chronicle.

MAKING ANTIQUE OAK.—There are one hundred methods for darkening oak, some of them being fairly good, and some of them being decidedly bad, but one of the best methods, and one that never fails, is the fumigation of oak with ammoniacal vapor. When the work is ready to be darkened, place it in an approximately *air tight* room in which no light enters; for small work a packing-box will answer if the joints or cracks are covered with paper being pasted over them. Place the doors, furniture or other work in this room—a box—and place in the room a flat porcelain or earthen vessel filled with ammonia. See that the vessel containing the liquid is placed on the ground or floor, so that the fumes or vapor will strike the articles designed to be darkened. If the room or box is large, two or more vessels containing ammonia may be placed on the floor and left there until the wood is sufficiently dark. Of course, all openings in the room or box must be closed up, or the fumes will escape. Remember that the ammonia does not touch the oak, but the gas that comes from it acts in a wondrous manner upon the tannic acid in that wood, and browns it so deeply that a shaving or two may actually be taken off without removing the color. The depth of shade will entirely depend upon the quantity of ammonia used and the time the wood is exposed. Try an odd bit first, experimentally, and then use your own judgment.—Operative Builder.

Insect Illumination.

The secretary of the Smithsonian Institute, Prof. Langley, has been recently experimenting with Cuban fireflies with view to discovering the manner in which the illumination they emit is generated. He says that the light that they give is the cheapest in the world produced, that, is to say, with the least heat and the smallest expenditure of energy—and he believes that a successful imitation of it would prove a most profitable substitute for gas or electricity. The insects are beetles two inches long, and belong to the family of "snapping bugs," so called because when one is laid upon its back it snaps itself into the air with a clicking sound. The secret of the light this firefly gives is as yet undiscovered. Apparently it is conected in some way with the mysterious phenomena of life, and chemists and physicists have sought in vain to explain its origin. On each side of the animal's thorax is a luminous, membranous spot, and these flash at intervals, so that the Cubans put a dozen of the insects in a cage together and so obtain a continuous illumination, bright enough to read by. This light is accompanied by no perceptible heat, and is seemingly produced with almost no expenditure of energy. How great an improvement it represents upon all known artificial lights can be imagined when it is stated that in candle light, lamp light or gas light, the waste is more than 99 per cent. In other words, if they could be so obtained as not to throw anything away, they would give nearly one hundred times the illumination they do afford. Even the electric light is mostly waste.

COMPRESSING COTTON. — The adoption throughout the South of the roller cotton compress, which by a process simple in principle, and using no more power than is required for the plantation bale, will, says the *Manufacturers' Gazette*, it is anticipated, become very general; the capacity of the apparatus being equal to turning out a bale of less bulk, greater density, and of more even and smooth exterior than the large steam compresses make. The invention is expected to take the place of both the plantation press of to-day and the big compresses scattered over the country. Substituted for the ordinary plantation press, it will take the cotton right from the gin and turn out a 500-pound bale as small as, if not smaller, than a bale that has been crushed in the powerful hydraulic presses that are located at the various shipping points; and a bale from the roller compress is ready to put on the cars and be shipped direct to the mill, saving, of course, the charge and expense of unloading and reloading, and doing away with one set of middlemen altogether. The amount of money that is paid out annually for compressing the bales after they have left the country gins is very large, and this, it is claimed, is by this apparatus saved to producers and consumers alike.

OVERCOMING GRAVITY. — A boy who could not stand still for a single moment on a sheet of thin ice without breaking through it, could skate over it in perfect safety, simply because he put himself in antagonism to gravitation by pursuing a line of motion at a right angle with its downward vertical pull, and consequently lessening his weight as tested by a spring balance. In fact, the increase of velocity of any body not approaching the center of gravity, whatever its momentum, tends to lessen its weight, and were the whole periphery of the earth a series of the most delicate and sensitive spring balances, a body rolling over them throughout the whole of the vast circuit would register its weight more or less according to its velocity.—N. Y. Herald.

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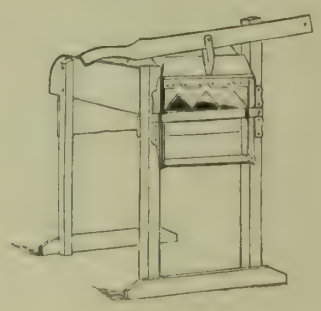

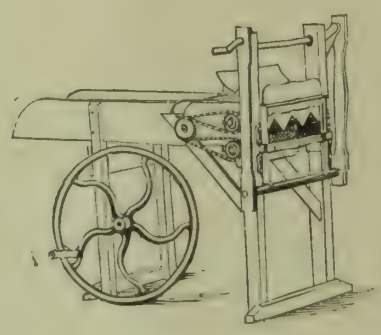

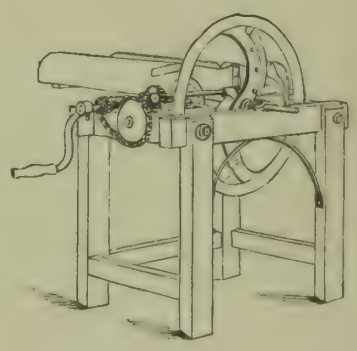

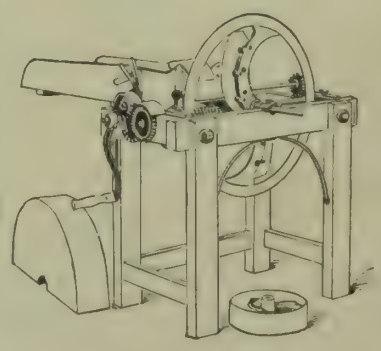

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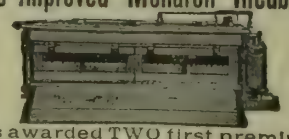

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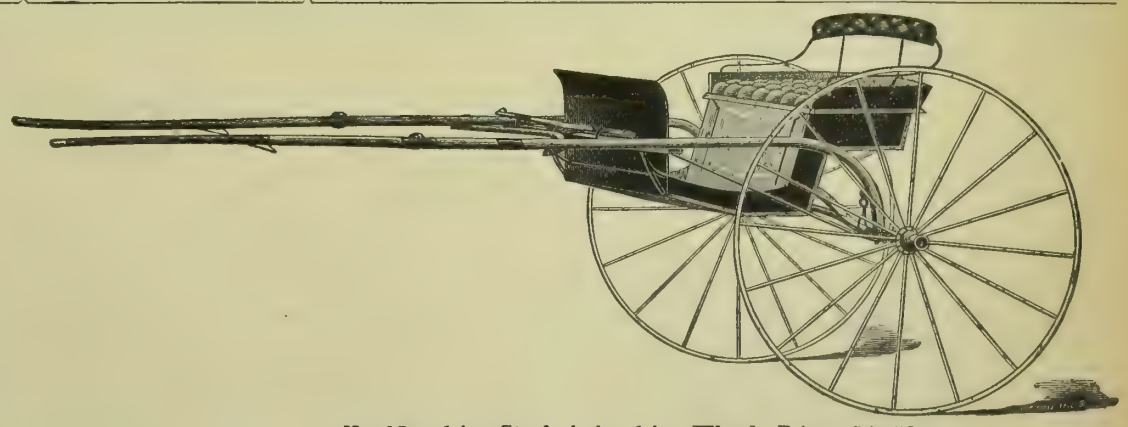

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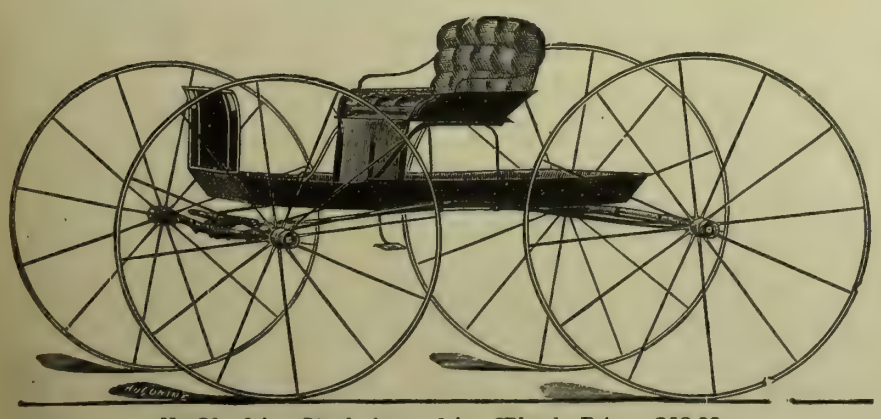

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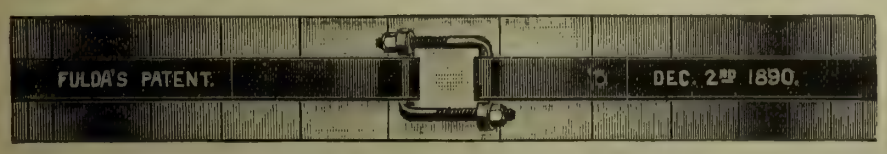

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AGRICULTURAL NOTES.

CALIFORNIA.

Butte.

FINE PEACHES ON VOLCANIC LAND.—Oroville *Register:* The lava-bed region is proving itself one of the best orchard sections in the county. Cal. Yetter presented us on Tuesday with a box of peaches grown there which showed the merits of the fruit in perfection. There were three varieties, Brooks Butte, orange cling and a freestone white peach. We measured some of them and they averaged from 10½ to 11 inches, while they weighed from 10 to 12 ounces. Four of the Brooks Butte weighed 38 ounces and four of the orange cling pulled down the scales at 44 ounces. They were grown on abandoned mining ground and without irrigation.

Modoc

FARM AND ORCHARD NOTES.—Williams Ranch Cor. Alturas *Herald:* After a six week's siege of hay-stacking on the Applegate and Smith ranches here, I have stacked the pitchfork and slid off (I hope) the last stack for the season. Heading is about over for this season in this vicinity. Will Mason headed the first crop for Wm. Clark, since then Messrs. Crawford and Gillett and the Barnes Bros. have kept their headers busy. Threshing will begin this week. Grain crops will be slightly under the average. We visited a number of farms at Davis Creek and inspected the crops and orchards, and while the crops are light as a rule, yet we found some excellent grain and much fine hay. The orchards were loaded with fine fruit, yet certain varieties of apple trees did not bear this year. In the gardens were some of the finest sugar corn and peas I ever saw, and as is well known in this mountain climate, the vegetables are tenderer and sweeter than those grown in warmer climes. Why would not Davis Creek be a good location for a cannery for corn, peas, beans and small fruits, and jellies? There are hundreds of acres of foothill land suitable for this purpose and abundance of water for irrigating. The good people of Davis Creek are going to send a fine exhibit to the fair at Susanville.

Napa.

PROFIT IN CHICKENS.—Calistoga *Calistogian:* There is profit in raising chickens if properly followed, though many persons make a failure of the business, or do not receive sufficient returns to compensate for the necessary labor. In 1891 Sidney Armstrong, who resides near Calistoga, began the year with 300 chickens. Chicks were raised and part of them sold, many of the old stock were disposed of and eggs were marketed during 12 months. January 1st last he still had 300 good chickens. Then, having carefully kept record of all expenditures on account of the chickens and also record of receipts from sales, he found that his net profit during the year had been $1.17 for each chicken. In this figuring, however, no allowance was made for his work, as he was physically unable to do hard manual labor. He is now engaging in the business more extensively and will soon employ an assistant. He has 800 chickens of different ages, and this number is to be largely increased. Mr. Armstrong says that he has in times past made his chickens average him nearly $1.50 per year above cost of maintenance, value of labor not included.

VITICULTURAL MATTERS.—*Calistogian*, Sept. 7: The weather has again been somewhat favorable lately for vineyards, but picking will begin very late, so late that vintage work will perhaps be interfered with by rains. The crop is very light, however, and it is possible that the vintage, though not beginning as soon, will not close later than common. The yield in nearly all vineyards of the valley will this year be far below the average. S. P. Connor says that the 4,500,000 gallons of wine made last year in the county will this year be reduced to 2,000,000, which is a remarkably small amount for the vine acreage. Prices for wine and grapes are steadily increasing, and growers should be very careful in the matter of making contracts, as it is generally thought that there will be no reaction, but that prices will go still higher. The market should be carefully watched. Of sales of wine and prices the St. Helena *Star* of last Friday says: "Several sales have been made at prices ranging from 14 to 15 cents net. We are credibly informed that one was made a few days ago by a winemaker residing near Bello station for 15 cents per gallon, delivered on board the cars and nearly all the purchase price paid down, which is better than 16 cents on time. We may look for a few sales to be made now that the prices have reached a good 15 cents per gallon, but not many, as nearly all our winegrowers long ago foresaw the shortage of the coming crop and have arranged to keep their wine on hand until a fair price is forthcoming." Of prices for grapes the same paper says: "We are reliably informed that offers of $15 and $16 per ton have been made for valley grapes to several parties and we have heard that that price has been refused. The above information is authentic."

Orange.

ORANGE-CROP PROSPECTS.—Santa Ana *Blade:* The outlook for a good orange-crop in this valley never was better than at present, and orange orchards never were in as fine shape as they are now. Old orchards that once were abandoned and given up as lost are now well kept, comparatively free from scale, and bearing good crops. Bug extermination has been entered into in this locality in earnest, and the good effects are perceptible on every hand. All kinds of fruit have brought a good price the present season, and it is cheering to know that a large crop of oranges will complete the list and prove equally profitable.

GRAIN ON THE MESA.—*Blade*: R. H. English finished his thrashing for this season on Tuesday evening last, and reports having thrashed, during the season, 60,000 centals of wheat and barley. He says the mesa below Westminster produced the greatest yield per acre of barley of any locality in the Santa Ana valley. On Mr. English's return to Tustin with his thrashing outfit, after his season of nine weeks' thrashing, Mrs. English gave the crew a grand supper. Mr. English says, owing to so much light grain, the average amount per day thrashed was not so large as last year, and for the same reason the machine had to be fed lighter than usual. His object was to do good work, and not to make a big record for the season.

San Bernardino.

FRUIT AND MONEY.—Ontario *Observer*: The marketing of the deciduous fruit crop at good prices has caused the distribution of a large amount of money among the ranchers of this locality, which, with the money distributed among the cannery operatives, is having a salutary effect on all business. The grape crop is a fair one, and when converted into cash many old debts will be obliterated and new bank accounts opened. After this crop shall have been sold in the form of raisins, oranges will begin to ripen, and thus the influx of money will be rendered perennial. Happily the loaning of money here on prime security at 15 or even 12 per cent in any considerable amounts is a thing of the past. Recently one of the ranchers secured a loan at seven per cent, and the capitalist who made the loan was glad to place it where it would draw so large an interest. Confidence in our real estate is now restored, and in consequence a large amount of eastern money will be offered borrowers at a reasonable rate of interest.

GOOD SHIPPING GRAPES.—*Observer*: E. M. Hatch sold from Geo. Witherell's place a carload of Malaga grapes to Mr. Atkins, of Lordsburg, who shipped same to Chicago. The gaapes brought $20 per ton delivered at North Ontario. The Malaga is a better shipper than the Muscat, though the latter, if properly packed, can be put on the market in good condition. Muscats have been successfully shipped from here to New York by slow freight.

Santa Clara.

FRUIT NOTES.—Campbell, Sept. 7: The Union loaded a standard-gauge car yesterday with dried apricots for the East. It has been offered 12½ cents per pound for its best grade of dried prunes. Frank Duncan brought 50 boxes of prunes to the drier the other day which graded out 37 boxes of No. 1 and the remainder nearly all No. 2. The three Duncans have the largest prunes brought to the drier this year, which is accounted for by the fact that they irrigated freely last winter. The Union has also contracted for all Solway peaches of 2¼ inches, which it can furnish at $60 per ton. Smaller sizes will be dried.

FRUIT NOTES.—Campbell Cor. *Mercury*, Sept. 2: The cool weather is very favorable to the remaining peaches, as hot weather just now would ripen them so rapidly as to prevent full development. Some driers who bought prunes upon the trees by the acre, instead of by the ton, will find themselves behind unless the price of dried prunes should advance perceptibly. Ten cents per pound will not make them "whole" on some purchases. Mr. Volmer sold his crop from a little over 12 acres for $3600 upon the trees, and receives $100 for hauling them to the drier, having nothing to do with the picking. He had a remarkably fine crop for this year, yet he estimates now that he receives about $60 per ton on the trees. Our Union has sold most, if not all, of its dried apricots at prices ranging from 11½ cents per pound for the lowest grade, to 15 cents per pound for the best. There is quite a little inquiry for orchards and orchard land here. Prices have advanced in the last three months. Notwithstanding, this is considered a trying year for orchardists. Los Gatos Cor.—Though the packing of fruit is abating, the harvesting and drying of prunes continues the demand for labor. Mr. Romer of the Farmers' Union is purchasing large quantities. Crandall & West are handling about 12 tons daily. Many are drying their own prunes, so that the movement of prunes by wagon and railway represents only a part of the crop. It is doubtful if the crop aggregates that of last year. Prunes on thin soil or soil that is underlaid with porous gravel have felt the want of the usual copious rains. Long strings of teams hauling pears continue to await their turn to unload at the cannery. Crandall & West are trying the experiment of drying pears. The dried of ripe pears, too ripe for canning, is almost like glaced fruit, so great is the quantity of sugar in it.

Santa Cruz.

A BEETLE DESTROYS THE TUSSOCK MOTH. Watsonville *Pajaronian:* Two years ago the orchard of J. A. Blackburn, one of the oldest in the valley, was attacked by the tussock moth, and the fruit crop for that season was entirely killed, and for a time it looked as if the entire orchard would have to be dug up. Last year there was but little improvement in the appearance of the orchard, though all of the modern washes and sprays had been tried. After a time a little beetle put in an appearance and he started in to make a success of the work that the ingenuity of man had been unable to accomplish. Nature had sent him to exterminate the pest, and he succeeded so well that he did not leave a moth in the orchard. He has been on duty there this year waiting for the reappearance of the moth, but he has had no work to do. The rest of two years which this pest gave Mr. Blackburn's orchard proved beneficial in many ways. The growth of wood this year has been surprisingly large, and the apple crop has been enormous. There has never been such a yield in an orchard of this valley. It is estimated by the packers who are handling the crop that there will not be less than 14,000 boxes of apples, and it may run to 16,000 boxes. From one of the trees it is claimed that 50 boxes will be picked. Careful estimates made on this vast amount of apples show that it will take not less than 21 cars to hold them if all the crop is shipped at the same time. It takes a heavy engine to haul that many loaded cars in one train out of the Pajaro valley. The orchard does not contain over 15 acres of land, and yet it will produce a trainload of apples this year. There is not an orchardist in the valley who would have given ten cents a tree two years ago for the fruit prospects of the orchard. Mr. Blackburn had a loss for two seasons because of the visit of the tussock moth, but the yield of this year indicates that the orchard has taken a new lease of life and has made a record which he can safely challenge any other California apple orchard to equal.

Shasta.

LARGE PEACHES.—Redding *Free Press:* This has been a season for large peaches. A peach one foot in circumference will attract attention everywhere, and peaches from 11 to 12 inches have been brought to this office this year by several orchardists located in different sections of the county. Perry Mark brought us a large box of peaches that measured 11 inches; then B. Klukkert of Anderson showed us some orange clings which were about the same size. Then Mrs. McKinney gave us a sample raised right here in Redding, and the last samples were brought in this week from Ono, from W. S. Kidder's place, peaches weighing 14 ounces each, called the Ono cling; also a box grown by Mrs. J. Cushman of Ono, brought to us by Mrs. Sarah Powers, who was accompanied by two sisters, residents of San Francisco. Mrs. Powers formerly owned the orchard where these peaches grew. They measured one foot in circumference, and will be placed in the fair as samples of size and color. The peaches above mentioned were clingstones. But on Tuesday we were presented with several fine freestone peaches by Mrs. Dr. Stevenson, raised in her garden, which measured 11½ inches and were of excellent flavor.

Sonoma.

SHORTAGE IN DRY WINE GRAPES.—Santa Rosa *Democrat:* S. P. Connor and Wm. Rennie, both of whom are winegrowers of Napa county, have been on a tour of inspection through the dry wine-grape counties of the State as representatives of the Wine-Growers' Union of St. Helena. Their report of Napa county is that it has produced as high as 7,000,000 gallons. In 1891 the yield was but 4,500,000 gallons, and this year, says Mr. Connor, we will be in good luck if we get 2,000,000 gallons. Santa Clara county produced last year 4,500,000 gallons—a short crop. This year it will not make 2,000,000 gallons. They never saw the vineyards looking so bad. No one would believe it who has not seen them. The cause of the failure in Santa Clara county is lack of moisture in the ground and the excessive heat of the past few weeks which has burned the leaves off, leaving the bunches green and exposed to the scorching sun. They cannot ripen under these conditions. They did not visit Livermore valley, but heard from a reliable source that the crop there was as bad as in Santa Clara. They are now in Sonoma county with the view of examining the crop here. Passed through the Guillicos valley to-day and found the vineyards looking better than anywhere they have been, but there will not be half a crop there. From Santa Rosa these gentlemen will visit Bennet Valley, the Rincon, Fulton, Vine Hill, Russian River, Cloverdale, and will return home via Alexander and Knight's valley to St. Helena. They are now convinced that there will not be a yield of over 6,000,000 gallons of wine in all the dry-wine counties of the State, against a production of 15,000,000 gallons last year. It is thought that the prices for sound wine-grapes will range from $12.50 for ordinary to $25 per ton for finest wine varieties—Cabernet Sauvignon and some others. J. Chauvet of Glen Ellen was in Santa Rosa, and reports the grape crop light, especially the Gutadel variety. The Zinfandels in his vineyard are fair. The reports he has heard from Messrs. Shaw, Austin and others are all to the effect that the crop will be short. Mr. Chauvet has purchased a lot of cooperage lately and has sufficient to handle a vintage of 100,000 gallons, which he expects to make this year. The price of wine is still low, but Mr. Chauvet thinks this comes very largely from a combine of dealers which is now holding off under the impression that the growers who make wine will have to sell to release their cooperage. They also think that the larger manufacturers will have to sell to raise money to run their fall business. In the meantime, great preparations are being made in the county to dry grapes, which in this shape promise an equivalent of $15 a ton for the green fruit, which is a great deal more than can be realized for them in wine at present prices.

RUSSIAN RIVER FRUIT ITEMS.—Healdsburg *Tribune:* Messrs. Hotchkiss & Miller dried and dipped 102 tons of green prunes last week, and before the season closes they expect to dry 350 tons more, which will make about 25 carloads as against 42 last year. This constitutes the bulk of the product of Mendocino and Russian River townships. Mr. Hotchkiss says that this year's yield fell 40 per cent short of that of last season. After a busy season of 35 days' duration, the Russian River cannery closed on Saturday evening. An average of 350 hands was daily employed at that establishment, and the total pack was 16,211 cases segregated as follows: 2947 extra peaches in 3-lb. tins; 397 extra pears in 3-lb. tins; 3911 extra standard peaches; 3579 standard first peaches, plums and pears; 2262 standard plums and pears; 1536 second plums and pears; 690 gallons pie peaches. The largest day's run was 688 cases of peaches, with a total of all fruit of 749 cases. The average pack was 600 cases, and on the last day the output was 644. In a few days the goods will be shipped as fast as it can be boxed to New York City by water.

Sutter.

HOP CROP.—Yuba City *Farmer*: The hop crop is being gathered rapidly at Nicolaus. Chas. Engasser has finished and will have from six to seven tons. Grider Bros., Pat Carroll and T. J. Mulvany are picking. The yield is fair.

Tulare.

RAISIN PACKING AT TULARE.—Visalia *Register*: The Tulare Fruit Packing Company has in contemplation the doing of something in the nature of a commission business this year. The first crop of grapes comes pretty near being a failure on account of frosts late in the spring, cold north winds, and what the second crop will make will depend largely on what the weather is during September and October. If the weather holds dry, the second crop will turn out very well indeed and a very good pack can be made. The fruit, when it comes in, is graded as to quality and a hypothetical price fixed for that quality, and half the price advanced. When the season closes and the returns are all in, each grower is paid in the proportion that his goods bear to other goods as to quality. That is, if one pack is graded at five cents and another at four cents, persons consigning either quality will be paid in the ratio of four to five for each pound consigned to the company. The company will take out of the gross proceeds the expenses of handling and marketing and five per cent for commissions, the rest going to the producer.

SUCCESSFUL CULTIVATION OF FRUIT NEAR LINDSAY.—*Times:* A short distance east of the station at Lindsay an experiment in the fruit line has been made and it has proven an eminent success. G. S. Berry and W. S. Berry have a tract of 70 acres of vines and trees that practically demonstrates the possibilities of that soil. Fifty acres of this tract are planted in raisin grapes; part of these were planted last February, and the rest were planted a year before that. On these vines this summer was a yield of first crop grapes aggregating ten tons of green fruit. This crop has already been picked, dried and packed in bags ready for market. They made an extra good quality of high grade Muscat grapes. The other 20 acres of the tract are in trees. There are 12 acres of oranges and eight acres of all varieties of fruits. Most of the orange trees were planted last winter and they have made a fine growth. Among the other trees are excellent varieties of the olive, the lemon, the fig, the apricot, the nectarine, the peach, the apple and the pomegranate. The farm is irrigated by means of two pumps, both run by steam. One is a common suction pump, the other is a pump known as the pulsometer. It was thought necessary to have two wells and two pumps, as they now have, but a year's experience has taught them that one of their wells with a steam pump is amply sufficient to irrigate everything in that 70-acre tract. An adjoining 80 acres will be prepared for more fruit this fall and winter. On this tract a nine-inch well has just been bored to a depth of 80 feet. There is a column of water in it already 54 feet high. A centrifugal steam pump is now on the ground ready to be put in operation in this well, and it will supply water enough for the whole half quarter-section.

NEVADA.

WILD HORSES.—Reno *Gazette*: It would sound strange in any other country to even suggest that a bounty be paid for horse scalps, as is done for those of wolves and other wild animals. There are estimated to be 100,000 horses running wild in the mountains of Nevada that are not worth catching and breaking. They are remnants of bands that have strayed away and of small fragments owned by Indians, which were worthless to begin with, and have constantly deteriorated until they are small and weak. They will gather to themselves animals that chance to stray into the hills and render it very difficult to regain possession of them. Even good horses are low-priced now, and scrubs and fuzz-tails are not worth the grass they eat. They use food which is needed for cattle and sheep, and the day will come when some action will be necessary in order to keep them down. Extermination would be the proper remedy, but it is practically impossible, the animals being as wild as deer and capable of getting over the rocks faster than a tame horse with a man on his back. Even now many of the cattle and sheepmen carry rifles for them and shoot the stallions on sight when they get within reach. Of course nothing in this article refers to the bands, numbering thousands of head, which are managed by horsemen and cattlemen. Many valuable animals are raised annually for the market and add a valuable industry to our State.

OREGON.

HOP PICKING.—Eugene *Register*: One of our leading hop growers informs us that the crop, so far as picked, is falling short of what had been anticipated, and they had not looked for a full crop. He states, however, that the quality of the hops is first class. Pickers are complaining because of the light crop, as they cannot make as much money. It is feared that a good many of them will quit before the crop is all gathered, but it is to be hoped that they will not. One thing favorable to the growers is that there are a great many people who need the money they will get for picking, though it be a small amount.

AN AMATEUR.—"I judge that you have not written much poetry," said the editor to his caller after examining his manuscript.

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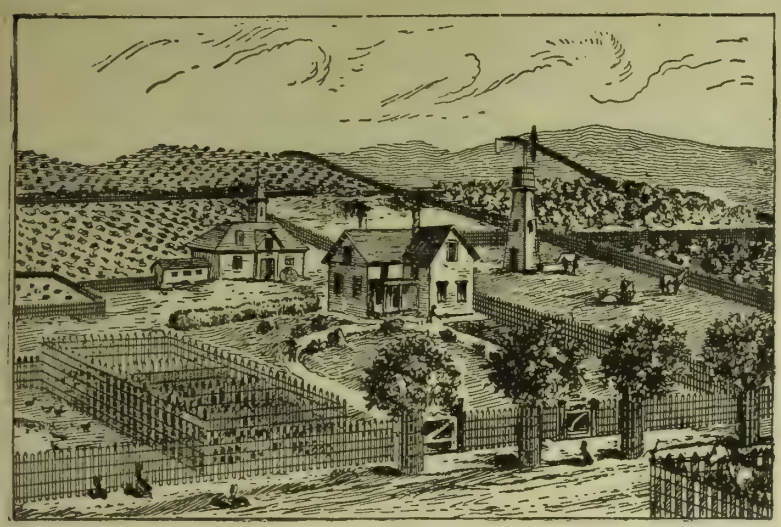

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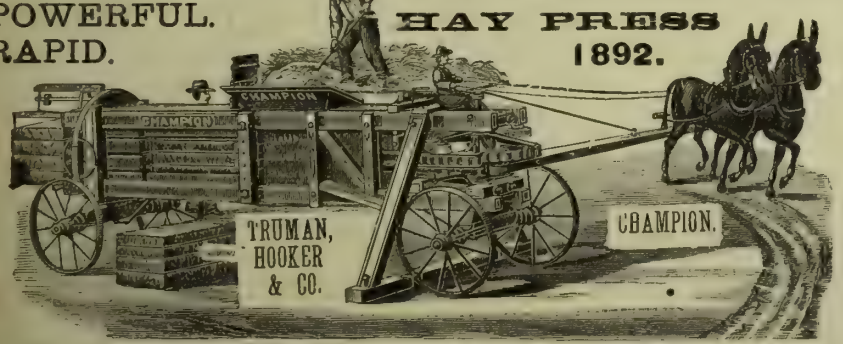

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PATRONS OF HUSBANDRY.

The Secretary's Column.

By A. T. Dewey, Secretary State Grange of California.

GRANGE MUTUAL FIRE INSURANCE COMPANY.

Some two years ago, the Legislature having failed to provide for the organization of farmers' mutual fire insurance companies, the Patrons of Sacramento discussed the matter, appointed a committee, and Judge McKune of the committee drew up what he believes to be a perfectly legal and practical plan for organizing an insurance company under the contract plan, to enable farmers, with perfect security, to avoid the double taxation they now suffer from the fire insurance companies' trust or combine.

The following form of policy will give some insight as to the plan of insuring:

THE PATRON MUTUAL FIRE INSURANCE COMPANY OF SACRAMENTO CO., CAL.,

Formed by a contract, material parts of which are printed hereon, having received application No. — of and from —— —— for a policy of insurance against damage and loss by fire of certain property described in said application, which is hereby referred to and made a part hereof.

Now, know all men by these presents, that, in consideration of the premises, in accordance with said agreement, and the payment of $—— premium, said company does hereby insure the said —— —— against loss or damage by fire, to the aggregate of —— dollars, as follows: [Insert list of articles and valuation.]

And the said company does hereby agree that it shall be subject and liable to pay, make good and satisfy unto the said insured, —— heirs, administrators, and assigns, according to the tenor and effect of said agreement, all such damage or loss by fire as shall happen to the said property and the several portions thereof, as above specified, not exceeding in amount the sum herein insured on said property, or any article or portion thereof, during the time the said —— —— shall remain a member of this company and comply with the terms of said agreement, as herein printed.

The said company, by its Board of Directors, has, by order, directed that this policy issue and be made firm and effectual. Sacramento, ——, 18—. —— ——, Pres.; —— ——, Sec'y.

The application upon which the policy is issued consists of a carefully-prepared covenant, made with the trustees of the company, agreeing to abide by the rules and regulations of the contract signed by the applicant. "These words of covenant" seem very fair, reasonable and in no wise onerous or pecuniarily or otherwise hazardous to signers. There are 32 sections in all.

The Sacramento committee proceeded so far as to print a quantity of blank applications, "Words of Covenant," containing the regulations for conducting the business safely, and blank policies for entering upon business. A copy of each of these blanks has lately been mailed to the Secretary of every subordinate Grange in California from the office of the Secretary of the State Grange, believing that a discussion of the subject in open Grange, or its consideration by a proper committee to examine the printed provisions and report for the action of the Grange before the representatives attend the State Grange would be for the essential good of the whole Order.

The Sacramento committee failed to put the plan in operation from the fact that a portion of its committee, through the opinion of some outside attorneys or other individuals, declared that such an organization would be unconstitutional. Judge McKune risks his reputation upon his thorough belief and opinion that such an institution can be constitutionally conducted under our present Constitution and laws.

The thorough consideration of the question among Patrons at this time may bring forward sufficient light on the subject to secure judicious action at the coming State Grange session, so that if the insurance combine again defeats the repeated petitions of the farmers of this State for the privileges commonly enjoyed in other States for forming mutual fire-insurance companies, there may be an effectual remedy in spite of the combiners.

The following statement, written at our request by Judge McKune is opportune in connection with this matter:

To A. T. Dewey, Sec'y State Grange of Cal:—Title 2 of the C vil Code provides for the formation of insurance corporations. Sec. 414 provides that after the Secretary of State issues the certificate of incorporation, the Directors named must open books of subscription to the capital stock to the full amount of the fixed capital stock, etc.

Sec. 417 provides for dividends. Sec. 419 provides that every "Company, corporation or association hereafter formed or organized under the laws of this State for the transaction of business in fire, marine, inland navigation or life insurance, must have a subscribed capital stock equal to at least $200,000, 25 per cent of which must be paid in previous to the issuance of any policy."

After I drew the plan for mutual insurance by agreement (a copy of which I gave you), under direction of a committee composed of Bros. Thos. McConnell, David Reese, Geo. W. Hack, A. A. Krull, Theo. Deming with myself, the matter was referred to Bros. Hack, Deming and me to put our plan in operation. After some little delay, Bros. Hack and Deming called my attention to the matter above quoted from the Civil Code, and suggested that such a provision might render our movement inoperative.

I gave them my opinion that it would not effect our action and suggested, viz:

a. That the provision was contained in a part of the Code wholly devoted to the formation of corporations.

b. That the provisions quoted, when compared and construed in the light of other provisions of the same code, clearly indicated that they applied only to the formation of insurance companies for profit.

c. That the words "Organized under the laws of the State" clearly meant that the words "Company" and "Association" meant that they must be formed under some provision of the Civil Code.

d. That our proposed action was not to be taken and did not constitute a company or corporation organized under the laws (statutes) of the State.

e. That there was nothing unconstitutional in such an agreement as we proposed and such a contract could be enforced.

f. That the business, being placed in the hands of men who would carefully administer the provisions of the contract, could be made beneficial.

Bros. Hack and Deming were of a different opinion and declined to act further in the matter, and so the plan has never been tried. I have some hope that the next Legislature may give us some relief, but unless that body shall be formed of different materials from those of the last two sessions, with a body wielding so much money as the insurance combine to contend against, my fears overbalance these hopes. I am, etc., J. H. McKUNE.

A "HINT" MERELY.—It is desirable that every Grange should admit as many applicants as possible before the State Grange meeting. When the first annual meeting of the State Grange was held at San Jose, a very large class was instructed in the last degree, and we presume that Grange would be willing to confer the third and fourth degrees, in the early part of the State Grange week, on any second-degree members that may be present, if such a favor should be requested by any subordinate Grange. Such a ceremony would afford one of the most practical and instructive exemplifications of the secret work that could be given before the members and visitors at the State Grange.

INDEPENDENT GRANGE.—We have recently received an order for the necessary printed documents for the new Grange, "Independent," lately organized with 48 members by Past Master Overhiser at Linden, all of which have been forwarded. The following are the officers of this new link in our fraternal chain: Geo. Klinger, M.; E. Davis, O.; Mrs. D. Harrison, L.; J. A. Drace, S.; F. W. Fisher, A. S.; Mrs. Drace, C.; Chas. Perryman, T.; H. H. Fine, Sec'y; A. B. Spencer, G. K.; Miss Annie Hart, Pomona; Miss Minnie Fisher, Flora; Mrs. McIntire, Ceres; Mrs. Watkins, L. A. S.

E. W. DAVIS, W. M., delivered the Annual Address at Petaluma Fair, Aug. 31st. We have no doubt it was an able and instructive document.

SEVEBAL members of Tulare Grange will be in attendance at the State Grange.

TO PACIFIC GROVE AND SANTA CRUZ.—Gen. Pass. Agt. Goodman in his letter relating to excursion rates to the State Grange, incidentally mentions that if tickets enough are guaranteed from San Jose to Pacific Grove and return, he will make a rate of $2.45, or a rate of $2.10 from San Jose to Santa Cruz and return. This is a mere suggestion for Patrons to consider whether they desire to make up an excursion to either of the above places after the close of the State Grange.

STOCKTON GRANGE.—Mrs. W. D. Ashley informs us that this Grange finishes up the initiation of a class with a Harvest Feast, September 17th. All San Joaquin Granges are invited, including the new Linden Grange, Independent.

STAND BY THEM.—Whenever a worthy member of the Grange is nominated for office stand by him, if he is competent and worthy of the place. Congress and the Legislature of California certainly need a new deal in their membership. Who is there that does not know a wonderful improvement would take place in the honorable bodies mentioned if every seat was filled with Grangers and farmers.

TULARE GRANGE.—The conferring of degrees at the last meeting was deferred, as two more applicants have knocked at the outer gate, and all will be admitted together. As no sister would promise to attend the State Grange as alternate, two brothers were elected. The sisters prepared ice cream and cake for the last meeting all the same, and Master Shoemaker says everybody enjoyed it.

J. H. BRIGHAM, Master of the National Grange, recently took a lecturing tour into Wisconsin and neighboring States. Mentioning the home of Past Master S. C. Carr, well known for his lecturing tour in California, Milton Junction, Wis., he says: I found here a "hive of industry," and another man who makes farming pay, and yet finds time to devote to the Grange. Bro. Carr has a fine farm and a pleasant home, and knows how to appreciate both.

VISITORS.—Among late visitors, we have had the pleasure of welcoming to our new Secretary's office S. T. Coulter, I. C. Steele, G. P. Loucks, H. Pomeroy and Don Mills.

IN MEMORIAM.—Bro. J. D. Huffman sends us an ably written memorial from San Joaquin County Pomona Grange, of which Mrs. Albert Woods was a charter member. She was also one of the highly-esteemed honorary members of the State Grange. Having published the resolutions from her subordinate Grange, Tulare, we can only well give space for the following paragraph from the adopted report of the committee, consisting of Alida Allison, R. Pixley and M. Merrill, viz.:

We feel that when Sister EVA WOODS passed into the beyond that a loving wife, a tender mother, a warm friend, and a true member of our Order, left vacant a place which will always be held sacred to her memory in the hearts of those who loved her. We desire that there shall be a memorial page set aside in our Record Book inscribed to memory of Eva Woods.

OFFICERS' REPORTS.—Overseer Roache has sent in his Annual Report for the coming State Grange session. In the accompanying letter he reminds us that

"The time is short until once again
We meet the women and the men
Who labor for our country's cause,
For Truth and Right and Equal Laws."

Bro. Roache adds: "We have just finished up our last class of seven with Harvest Feast and celebration of Ceres', Flora's and Pomona's days combined. We have just started another class."

WORTHY STEWARD W. W. GREER promised us his report while at Sacramento last week. Let all officers of the State Grange remember that it was their duty to forward their anuual report before the 15th of September for advance publication and circulation at the coming session of the State Grange. The "majority," we are sorry to have to say, should now be hurrying up their reports.

IT may be gravely questioned whether we, as a people, do not devote too much time to the worry and care of business, and too little to innocent and enjoyable recreations for our moral and physical health. We have been quoting the wise saw, "Business before pleasure," so long that we can now revise and improve it a little so that it will express the whole truth and read, "Business before pleasure, and broken-down manhood before the meridian of life is reached." Overwork and worry to gratify mercenary and avaricious desires are doing much to undermine physical health, and lower the moral tone of society. There are *other sins* than those which follow in the wake of recreations. Farmers' Friend.

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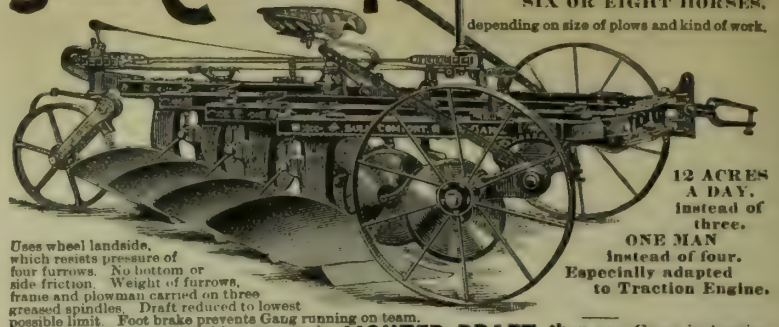

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5th: ∴ *If* you can buy the same high grade goods elsewhere at our prices, go ahead, but if not, help us sell that million.

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4th: Watch the *prices* quoted the balance of this year, in our advertisements in this paper. Will make our record on *them*.

6th: Keep posted, send for our daily price list and monthly list of 40 pages. Special new bargains all the time. Cash does it.

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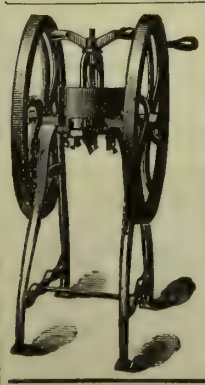

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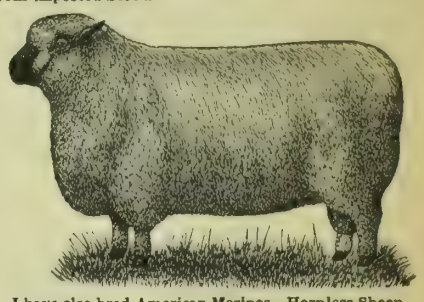

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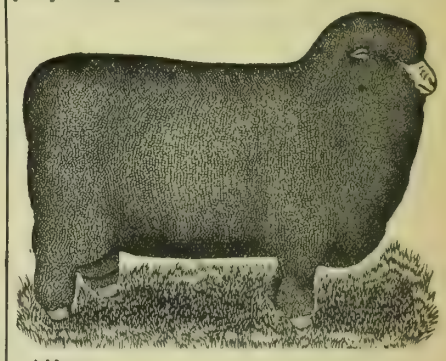

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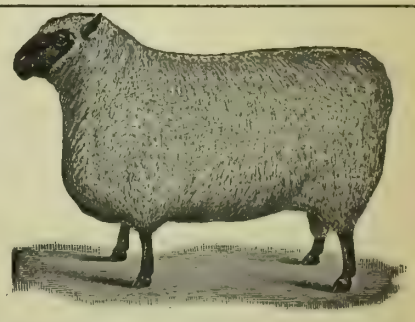

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January 1, 1892 A. MONTPELLIER, Manager.

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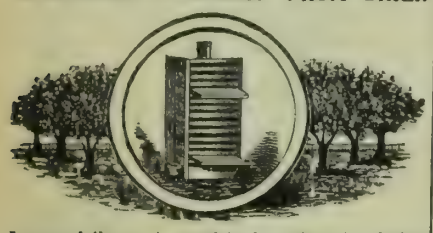

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Steel Wire **CROSS HEAD** Bale Ties?
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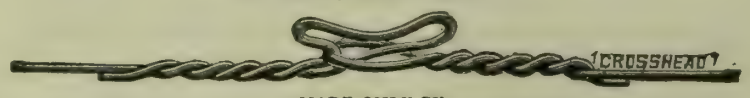

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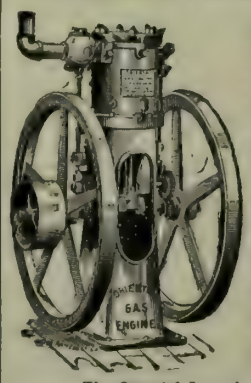

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S. F. MARKET REPORT

Market Review.

SAN FRANCISCO, Sept. 14, 1892.

The banks, as a rule, report a lighter call for funds with which to make advances against warehoused grain. The rapid drop, through crossorders on Call on this coast and at the East, bear reports and bear writing in paid newspapers here and at the East, has unquestionably caused some of the banks, and also capitalists that have made advances on wheat of over $1 a cental, and barley at 65 cents up to 80 cents, according to grade, fearful, and call for more margin either by selling or giving more security. That the present depression is unwarrantable and the work of a strong moneyed clique at home and abroad goes without saying. With silver a commodity, the clique is the better able to manipulate the grain markets of the world. Last season, while the clique was selling at high figures, bull representations were made by paid newspapers to induce farmers to hold; even bad-crop outturn telegrams, and all else to promote a bull sentiment with farmers, were resorted to, but so far this season it is the reverse. The papers now glory in giving bear news and larger crops in Europe to induce selling by farmers. Last year the short crop in Europe was paraded, but the unprecedented crop in this country, India and Chile was ignored. This year the increased crop, when compared with the exceptionally short crop in last year in Europe, is blackboarded, but the very large falling off in the United States, India and two or more other countries, is ignored. The crop, taking all countries as a whole, is fully 200,000,000 bushels less in this year than it was in 1891, and yet paid newspapers publish only bear information by which the clique can the better gain its point. A year ago the RURAL PRESS advised selling, and time proved it to be correct. This year the writer advises holding—*prices are too low to sell.* Farmers in storing their grain should exercise care and not get it into the hands of those who loan wheat to shippers, to be returned when the latter buys it. By this practice, the market is worked in the interest of speculators, shippers, millers and the ship ring.

The week under review was broken by two holidays, from which the grain market has not fully recovered. The State and district fairs are attracting an unusual degree of interest, and until they are well over, the farming community will give little attention to the markets. Buyers report that considerable wheat is offering, but sellers' views are largely above those of buyers'. The offerings are mostly of undesirable grades. Shippers bid for No. 1 white shipping, $1.27½ per cental, but pay from 1¼ to 2½ cents advance for straight parcels. Millers bid $1.35 for good milling and $1.37½ to $1.40 for choice to gilt-edged white milling, but pay for straight parcels an advance of from 1¼ to 2½ cents. The U. S. Agricultural Department's report on the 10th places the wheat crop of this country at below 500,000,000 bushels and the corn crop below 1,600,000,000. The falling off of 20,000,0000 bushels in winter wheat on last official estimates reduces the total crop estimate of wheat. Barley has ruled irregularly weak under heavy receipts, chiefly of coast. Buyers are discriminating in favor of good to gilt-edged bright barley. There is a continued heavy export movement of barley. So far this season, the shipments aggregate nearly 300 per cent more than during the corresponding time in 1891. The Hawaiian islands are increasing their purchases of roll barley. Oats have eased off under heavy receipts from Washington and Oregon. Buyers are offish even at the lower prices. Corn has been easy, with sellers giving concessions. The shipping demand is next to nothing. Rye has been offering more freely, and like other cereals, concessions were in order.

There has been a good demand for ground feed, but it is claimed that the buying does not indicate that feeders are buying beyond near-by wants. This doubtless is due to a prevailing opinion that the rainy reason will set in early, and, unless we have a severe, cold winter, natural pasture will be abundant. Bran has sold down, while middlings were firmer. Roll barley was in good demand at irregularly weak prices. Feed meal and cracked corn sold lower. Hay has pressed the market and, in the absence of large competition, buying prices have shaded off. It is quite generally claimed that at least 20 per cent more hay is being fed than at this time in 1891, but fears, it is said, of an early winter cause a desire on the part of farmers to force sales. It is altogether likely that if we have an early winter it will also be very cold and require more feeding and better care of stock.

In dairy produce both dairy and creamery butter have weakened off, but firkin butter has strengthened. The absence of Eastern tub creamery favors firkin butter. Square butter at the higher prices drags. Eastern advices report splendid pasture and an unusual flow of rich and high-colored milk which admits of a larger output of butter at this season of the year than has obtained for several years past. Cheese has held fairly firm with a good demand reported. Gilt-edged mild new is scarce and wanted. The East reports large output for the season of the year. The receipts of eggs have been light. Another advance has been established in strictly choice fresh-laid eggs received from near-by points. At the advance the demand is lighter. Selected Eastern eggs are receiving more attention. The eggs, to fetch the best figures, must be known to have been shipped by packers having a good reputation for honest stock. "As is" eggs are still low, although the high prices asked for the more choice cause them to meet with slightly better favor. Baker and Chinese eggs are in ample supply.

Garden truck has moved off fairly well at essentially unchanged prices. Canners are still taking tomatoes, but any advance on the part of sellers causes them to hesitate. Onions have come in quite freely. The demand has been fair. An improved shipping demand has developed for the more choice potatoes. Eastern advices are confirmatory of a short crop, which gives assurance of a market for our surplus. The receipts of poor to fair potatoes are heavy. There are unusually large quantities of diseased and wormy potatoes on the market.

Fresh or green fruit has come in sparingly, but as the demand was light the market held to more or less steady prices. The receipts have been largely of poor to fair; very little choice was received. The market cleans up quickly and at higher prices than are quoted for the more choice. Canners, as a rule, are still running to full capacity. They want the more choice grades of canning fruit. The belief that canned fruit can be eat during a cholera epidemic is largely in favor of the industry and which has no doubt stimulated the increased demand from the East and also from abroad for our canned fruit.

The dried fruit market has ruled easier for both grapes and peaches. This is due to reports of a largely increased drying and the trade, on these reports, is holding off. The Chinese will, it is claimed, soon press the market with peaches. Apricots and plums are very strong, with another advance established in the latter. Those in position to know claim that about all the surplus has been bought. In Oregon the plum crop was light and prices were high, which caused growers to sell their green fruit and dry very little. Prunes are getting scarcer, but the market is no higher. It is said that owing to two dry winters a large proportion of the prunes are thick-skinned, but outside of this they are fully equal to former seasons. The cholera scare and strict quarantine regulations at the Atlantic seaports are against foreign shipments, which is accepted as favorable to California. Outside of this higher views abroad preclude the possibility of a profit on shipments to this country. Pears are being inquired after, with considerable quiet buying reported. Nectarines, it is said, are meeting with a better demand this year than ever before. There is an improved demand for choice to extra choice dried apples. Liberal contracts for future delivery have been made in this State and Oregon. The buying is mostly to fill Eastern orders. The outlook for all kinds of dried fruit is of a promising character, but if prices are pushed too high the consumption will fall off.

Raisins appear to have been gaining in strength, although there is no falling away in the bear pressure. The lateness of the season and prospects of early rains, the same as was experienced three years ago, cause a more pronounced bull-feeling. The cholera scare at the East is causing very few shipments to be made from European ports. It is claimed that all packs are being picked up which can be secured at shaded prices.

Markets by Telegraph.

Foreign Grain Review.

LONDON, Sept. 12.—The Mark Lane *Express* says: New England wheat averages 31s 11d, an advance on the small amount offered. There is little demand for foreign; American Red Winter brought only 29s. There are rumors that contracts have been made for October delivery at 27s 6d. Barley and corn are cheaper. Oats are steady. To-day there was a small show of new English wheat which brought 32s. Foreign wheats are 6d cheaper, but California and Red Winter are steady. Flour is held at the old prices. Barley, oats and corn are in better demand and unchanged. Rye, 27s.

Western Oregon Hops.

SALEM, Sept. 12.—The hopgrowers of this section are about through picking. The yield has been about half a crop, but the increased acreage will bring the aggregate up to more than half the yield of last year. Some growers are finishing up baling, after which the buyers will probably talk business. One firm of buyers has been asking for whole bales or several bales, five or ten, as samples, paying 15 cents and the raise for samples. What their scheme is no one seems to know definitely. Not many growers have furnished such samples and no more are likely to.

Wool.

NEW YORK, Sept. 10.—Conditions of trade similar to last report. Prices perhaps are a little crisper, but no prompt advance foreshadowed. Volume of sales good. Sales at New York, 546,000 pounds of domestic, including a line of Montana, and 529,000 pounds of foreign. Boston sold 3,200,000 pounds of domestic and 437,000 pounds of foreign.

Canned Fruit.

NEW YORK, Sept. 10.—The invoices per sail are well forward, the Frederick Billings landing 30,000 cases this week. Few lots are changing hands, but prices indicate settled strength. Standard peaches are quoted at $1.90@2; apricots, $1.65.

Dried Fruit.

NEW YORK, Sept. 10.—Apricots—Strong for lots here and close-by sales at 15@16½c for good to prime straight; 17c for fancy and 19c for extra. Dried peaches are strong at 15 cents spot, though not in a large way. Prunes are in good shape, and it would not require much Coast shading in rates to arouse an improved demand. French prunes, four sizes, sold: September delivery at 10@10¼c; October, 9½@9¾c, tending upward at the close.

Raisins.

NEW YORK, Sept. 10.—The situation continues unsatisfactory for opening the domestic interest. Foreign stock will be on hand materially in advance of the Pacific grades, and it is said it possesses a fine quality this season. Prices, too, are more attractive than California wants to land her pack at. All this tends to call off trading for early, interior wants, and it is feared in the trade that much of the outside demand that has been so patiently drummed up for the California product will run back to Ondara and Malaga layers and Valencia off-stalk. No definite bids for Pacific were named.

Miscellaneous.

NEW YORK, Sept. 10.—Honey—Firm and wanted. Lima Beans—Though the demand is moderate, holders are not disposed to make marked sacrifices. Market closes stiffer at $2@2.05 spot. Hops are without stimulating influence in any grade, spot or future. Choice have abo it petered out. Range for all, commont o prime, 20@23c; weakly supported.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	Sept.	Oct.	Nov.	Dec.	Jan
Thursday	5s11½d	6s0½d	6s01½d	6s01½d	6s03 d
Friday	5s11½d	6s0½d	6s00½d	6s01½d	6s02½d
Saturday	5s11½d	6s01 d	6s01½d	6s01½d	6s03 d
Monday	6s0¼d	6s01½d	6s02¼d	6s03¼d	6s03¾d
Tuesday	5s11½d	6s.1½d	6s01½d	6s01½d	6s03¼d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market for P. S.	Weather.
Thursday	32s d	32s6 d	32s d	More inq.	Finer.
Friday	32s d	32s6d	32s d	Slow.	Fine
Saturday	32s d	32s6d	32s d	Slow.	Fine.
Monday	32s d	32s6d	32s d	Steady.	Unsettled.
Tuesday	32s d	32s6d	32s d	Quiet.	Fine.

To-day's cablegram is as follows:

LIVERPOOL, Sept. 14. Wheat—Hardly any demand. California spot lots, 6s 4½d; off coast 32s 6d; just shipped, 32s 9d; nearly due, 32s 6d; cargoes off coast, firmer; on passage, steadier; Mark Lane wheat, quiet; French country markets, steadier; weather in England, fair.

San Francisco.

WHEAT.

	Seller '92.	Buyer Sept.	Buyer Oct.	Buyer Dec	May
Thursday, high st	129	1.9⅝	....	134⅝	....
" lowest	129	129¼	....	134⅝	....
Friday, highest	....	....	....	....	....
" lowest	....	....	....	....	....
Saturday, highest	....	....	....	....	....
" lowest	....	....	....	....	....
Monday, highest	128	129⅛	....	134	139½
" lowest	128	129	....	133⅞	139¼
Tuesday, highest	127⅞	128⅝	....	133⅝	....
" lowest	127½	128⅝	....	133⅝	....

The following are to-day's recorded sales on Call:

Morning Informal.—Wheat, buyer December, 300 tons, $1.33⅞; 1000, $1.33⅝. Seller 1892, 100 tons, $1.28½ ₩ ctl. Regular Session.—Buyer December, 200 tons, $1.33⅞; 100, $1.33⅞; 100, $1.38⅝; 200, $1.33⅞. Buyer September 200 tons, $1.29; 200, $1.29½; 500, $1.29⅝; 100, $1.29½ ₩ ctl. Afternoon.—Buyer December, 1800 tons, $1.33⅞; 700, $1.33⅞. Buyer September 100 tons, $1.29. Seller 1892—100 tons, $1.28⅞; 200, $1.28⅞; 100, $1.29 ₩ ctl.

BARLEY.

	Seller '92.	Buyer Sept.	Buyer Oct.	Buyer Dec.
Thursday, highest	86½	....	87½	92
" lowest	86½	....	87½	91½
Friday, highest	....	....	....	....
" lowest	....	....	....	....
Saturday, highest	....	....	....	....
" lowest	....	....	.	....
Monday, highest	85½	....	87½	90⅞
" lowest	84⅞	....	86⅞	90⅝
Tuesday, highest	81⅞	....	85⅝	90½
" lowest	8 ⅝	....	85⅝	89¾

The following are to-day's recorded sales on Call:

Regular Session.—Barley, December, 100 tons, 90⅞c; 100, 91½c ₩ ctl. Afternoon.—December 500, 90½c; 200, 90⅞c. Buyer December—100 tons, 91⅝c; 200, 91½c ₩ ctl.

Eastern Markets.

The following shows the closing prices of wheat for the past week at

New York.

Day.	Sept.	Oct	Dec.	May.
Thursday	130⅝	132⅝	138½	....
Friday	131⅛	133⅛	1 8½	...
Saturday	131⅝	133¼	138¾	....
Monday	131	132½	138	148⅜
Tuesday	131⅝	133⅛	138½	....

The following is to-day's telegram:

NEW YORK, Sept. 14.—Wheat—73⅞c for September; 79⅝c for October; and 82⅞c for December.

Chicago.

Day.	Sept.	Oct.	Dec.	May
Thursday	122	12 ⅞	127¼	136½
Friday	122½	124½	128	136⅝
Saturday	122	124⅜	128⅛	137½
Monday	122	123⅛	127	136½
Tuesday	122½	124	127¾	137

The following is to-day's telegram:

CHICAGO, Sept. 14.—Wheat—74½c for October; 76½c for December; and 82½c for May.

General Remarks and Statistics.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending Sept. 13, '92, were as follows:

Flour, qr. sks	64,445	Bran, sks	12,415
Wheat, ctls	91,780	Buckwheat "	400
Barley, "	62,753	Middlings "	3,006
Rye, "	509	Chicory, bbls	110
Oats, "	24,373	Hops, "	147
Corn, "	5,444	Wool, "	2,043
*Butter, "	976	Hay, ton	3,284
do bxs	1,250	Straw, "	90
do bbls	37	Wine, gals	201,720
do kegs	241	Brandy, "	12,150
do tubs	81	Raisins, bxs	152
do ½ bxs	49	Honey, cs	84
†Cheese, ctls	525	Peanuts, sks	3
do bxs	65	Walnuts "	....
Eggs, doz	19,870	Almonds "	25
do " Eastern	46,500	Mustard "	2,917
Beans, sks	6,958	Flax "	....
Potatoes, sks	26,596	Popcorn "	....
Onions, "	3,448	Broom corn, bbls	....

*Overl'd, 341 ctls. † Overland, 80 ctls.

Exports by Sea from San Francisco from July 1 to Sept. 8

	1892-93	1891-92
Wheat, ctls	2,034,813	3,156,688
Flour, bbls	214,404	241,194
Barley, ctls	448,317	143,917

Tonnage Movement.

From reliable advices up to Sept. 14, the following summary tonnage movement is compiled:

	On the way 1892.	On the way 1891.	In port 1892.	In port 1891.
San Francisco	282,212	420,167	*169,304	74,169
San Diego	16,554	27,477	6,223	.....
San Pedro	12,480	3,471	.....	13,298
Oregon	48,377	68,034	39,610	
Puget Sound	37,220	37,588	.....	
Totals	393,943	556,737	215,137	87,467

*Engaged for wheat, 1892, 49,165 1891, 67,355.

Cereals.

In the United States the outturn is likely to be 112,000 000 bushels less, in Canada 8,000,000 bushels less, making a total of 120,000,000 bushels less production in the two countries. Estimates of the South American crop show some increase over last year but not material. South Africa, which raises about 4,000,000, reports the crop destroyed by locusts.

The Australian crop is about the same as last year, namely about 34,000,000 bushels. The Indian crop is known to be 53,000,000 bushels less than last year. Using the South African as a stand-off against the American, the total decrease outside of Europe is about 150,000,000 bushels. In England the crop is 10,000,000 bushels less than last year, Spain 8,000,000 bushels less, Portugal 2,000,000 less, Italy 9,000,000 bushels less, Austro-Hungary 6,000,000 less, making a total decrease of 35,000,000 bushels, or added to the decrease outside of Europe, a total decrease of 185,000 000 bushels.

Recent estimates on France make the crop 60,000,000 more than last year, but still considerably under the average. In regard to the other countries of Europe little is known. The Vienna Congress report can scarcely be taken as a guide. General indications and advices are for a larger production in these countries than last year, but how much larger will never be known until the official reports are out, and even these will have to be discounted. It is at least certain that the world's crop will be considerably short of last year, which will be partially offset by the increase of rye. The corn crop is considerably below last year's.

The Consul-General of the Orange Free State has received a letter from the American Consul-General stating that the writer had good reason to believe that there would be a decided scarcity of grain not only in that State but in Cape Colony, Transvaal and other colonies in South Africa. The trouble came from great clouds of locusts which destroyed everything.

Official reports from Roumania and Bulgaria state that the wheat harvest has given good results, but barley will hardly reach an average. Maize is quite promising. The official report of the Servian crop makes the total production 48,968,000 bushels.

The potato crop of Europe is expected to be a large one, which may considerably influence the demand for foreign wheat.

The official estimates of the wheat crop of Italy placed it at 11,200,000 bushels, a decrease of 26,000,000 bushels from last year.

The local wheat market was steady to-day at the lower bids. Buyers report light purchases, and even these are forced sales. The opinion is gaining ground that wheat will do considerably better and that, too, before the fall months pass. The large tonnage in port and to arrive is in favor of holders.

The barley market to-day was quiet, but fairly firm for choice to gilt-edged bright, suitable for shipping or brewing, but feed grades were barely steady, particularly for dark

Corn was quiet and in buyers' favor. The demand is of an offish character.

Rye and buckwheat were unchanged.

Feedstuff.

Both bran and middlings were strong and slightly higher. The demand is quite active.

Hay is coming in more sparingly. The low prices are inducing farmers to hold back. The market had a slightly steadier tone to-day.

Dairy Produce.

The receipts of butter, cheese and eggs at San Francisco in August were as follows:

Source.	Butter, Lbs.	Cheese, Lbs.	Eggs, Dozen.
California	1,146,100	456,100	114,235
Oregon	91,100	23,700	332,640
Eastern	139,100	215,000	450
Totals	1,376,300	694,800	447,325
January	502,200	476,900	420,345
February	622,550	313,500	200,245
March	1,188,700	574,200	358,756
April	1,793,050	802,900	590,068
May	1,713,100	715,900	536,170
June	1,811,200	634,100	603,735
July	1,157,700	789,100	374,211
Eight months	10,344,800	5,001,400	3,134,050

During the first eight months of 1891 the receipts were 9,603,500 lbs butter and 4,723,600 lbs cheese, 3,363,257 dozen.

The market for butter was fully one cent lower on the more choice grades and weak for other grades. The impression is that prices will ease off some more.

Cheese was in fair demand to-day at unchanged quotations.

Fresh-laid, white eggs shipped from near-by points were in active demand to-day, and 40c was readily paid for selected, large, white eggs; colored eggs will not fetch so much Poor to good were unchanged.

Vegetables.

The market for garden-truck was essentially unchanged to-day from that given in the review.

Onions were strong and higher to-day, under a free-shipping demand. It is claimed that still better prices will rule. The demand is largely from Colorado.

Choice and good-keeping shipping potatoes were in good demand, and for something extra a slight advance was obtainable. Poor stock is still slow.

Fruit.

Choice apples for shipping are wanted. Very fine, choice have, so far, put in an appearance. Choice Gravenstein sold up to $1.25 and good Greenings up to $1. The market is liberally supplied with wormy and otherwise poor stock. Prunes and plums are coming in sparingly; choice are wanted. The trade paid to-day as high as $1 per box for choice mountain peaches. Choice, firm grapes meet with a fairly good demand, but soft, watery are slow. Owing to low prices, very few grapes are coming in from the raisin sections. Figs are in good supply. Quinces are coming in fairly free, with the market ruling steady. Choice and good-keeping pears are scarce, but inferior and poor keepers press the market. Canteloupes are in active demand for shipping, with at times an advance paid on outside quotations. Melons are unchanged. Berries are in light receipt, with a strong market ruling.

Mexican limes are weak and irregular, owing to to quality. Sicily lemons are virtually out of the market.

The incoming orange crop, if it escapes the frost, will be quite heavy. Some inquiry is making regarding the probable prices.

The remarks in the review for the week cover to-day's market for both dried fruit and raisins.

Live Stock.

Live stock has been taken more freely by slaughterers. The cool weather is enlarging the consumptive demand. Hogs have sold down while mutton sheep favored buyers.

Miscellaneous.

Large-sized, well-conditioned poultry continues very scarce and readily sells at a marked advance in our outside quotations. Sales of hens have been made at over $8 per dozen, but they weighed over 5 and 6 pounds each. Very few of this kind come in. The same proportionate prices rule for other choice, gilt-edged stock.

Hops are meeting with a better inquiry. Eastern advices indicate a bullish tendency.

Wool is essentially unchanged. While the market at present is in buyer's favor, all advices indicate that a favorable turn is near at hand. Owing to the cholera quarantine, there is no importation of coarse wool, which is in favor of American carpet wool.

Honey is wanted for shipping, and for round, straight parcels an advance is bid.

New-crop beans are coming in. The market is weak and lower for all kinds except Limas, which latter are well sold up.

Hog product is weak and lower, in sympathy with the East.

Twine and Baling Rope.

BALE ROPE.		TWINE.	
Sisal, 3 yarns	9	Pure Manila Hop, in ba'ls, tarred	11½
Do, 2 yarns, light	9½	Do, Grape-Vine, in balls or coils	12
Duplex, 3 yarns	9	Do, Spring	16
Manila, 3 yarns, heavy	10½	Duplex Hop, in balls, tar'd	9½
Pure Manila, 3 and 4 yarns	12	Do, Grape Vine, in balls or coils	10½
Do, 2 yarns, light	12½		

Continued on next page.

General Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lowe quotations.

SEPTEMBER 13, 1892.

BEANS AND PEAS.		Common	1 22½@ —
Bayo, ctl.....	2 50 @ 2 75	Sonora.....	1 22½@ 1 35
Butter.....	2 50 @ 3 00	**HOPS.**	
Pea.....	2 40 @ 2 65	1892 Bid.....	18 @ 20
Red.....	2 60 @ 2 70	**FLOUR.**	
Pink.....	2 30 @ 2 50	Extra, City Mills	4 00 @ —
Small White ..	2 25 @ 2 45	Do Country Mills	4 00 @ —
Large White....	2 00 @ 2 15	Superfine.....	2 60 @ 3 00
Lima.... ..	3 00 @ 3 15	**NUTS—JOBBING.**	
Fld Peas, blk eye	1 50 @ 1 70	Walnuts, Cal. ⅌	6½@ —
Do green.....	1 50 @ 2 75	Do Choice.....	8½@ —
Do Niles.....	1 30 @ 1 40	Do paper shell..	9½@ —
Split	4 50 @ 5 50	Almonds, sft shl.	11 @ —
BUTTER.		Paper shell.....	14 @ —
Cal. Poor to fair, ⅌	17 @ —	Hard Shell.....	6 @ 7½
Do good to choice	23 @ 26	Brazil, ...	9 @ 10
Do Gilteddged...	27 @ 28	Pecans small...	11 @ 13
Do Creamery rolls	24 @ 29	Do large.....	14½@ 16
Do do Gilteddge..	— @ 31	Peanuts.....	3½ @ 4½
Eastern, ladle....	17 @ 19	Filberts.....	11 @ —
Cal. Pickled	21 @ 23½	Hickory.....	7 @ 8
Cal. Keg.....	20 @ 23	Chestnuts	11½@ 16
CHEESE		**ONIONS.**	
Cal. choice cream	9 @ —	Silverskin	40 @ 55
Do fair to good	7½ @ —	**POTATOES.**	
Do gilt edged...	— @ 10½	River Reds.....	50 @ 65
Do skim.....	5 @ 6½	Early Rose, ctl.	50 @ 65
Young America	— @ 11	Peerless.....	50 @ 75
EGGS.		Garnet Chilies .	50 @ 70
Cal. "as is," doz.	18 @ 20	Burbank Seedlings	50 @ 70
Do shaky.....	14 @ 16	Do do Salinas..	80 @ 1 05
Do candled.....	21 @ 25	Sweet	1 00 @ 1 37
Do choice.....	27 @ 30	Extra choice sell for more money.	
Do fresh laid...	35 @ —	**POULTRY.**	
Do do sied white	— @ 40	Hens, doz.....	6 00 @ 7 00
Eastern "as is".	17 @ 19	Roosters, old....	6 00 @ 6 50
Do candled.....	21 @ 23	Do young.....	5 00 @ 6 50
Do selected.....	24 @ 25	Broilers, small..	2 50 @ 3 25
Outside prices for selected large eggs and inside prices for mixed sizes—small eggs are hard to sell.		Do large.....	3 25 @ 4 00
FEED		Fryers.....	4 00 @ 4 50
Bran, ton.....	14 50 @16 00	Ducks.....	4 00 @ 4 50
Feedmeal.....	27 00 @30 00	do, large	5 00 @ 5 50
Gr'd Barley....	19 00 @20 50	do, extra large	6 00 @ —
Middlings	19 50 @21 50	Geese, pair.....	1 25 @ 1 75
Oil Cake Meal...	— @25 00	Turkeys, Gobl'r.	17 @ 20
Manhattan Food ⅌ ctl. cabinet	— @ 8 00	Turkeys, Hens..	17 @ 18
HAY.		All kinds of Poultry, if poor or small, sell at less than quoted; if large and in good condition, they sell for more than quoted.	
Wheat, per ton.	7 00 @ —	Manhattan Egg Food ⅌ 100-lb cabinet.....	8 00
Do choice.....	— @12 00	**PROVISIONS.**	
Wheat and Oats	8 50 @11 00	Cal. Bacon, he'vy, ⅌	11 @ 11½
Wild Oats.....	7 00 @10 00	Medium.....	12 @ 13
Cultivated do..	6 00 @ 8 00	Light.....	13½ @ 14
Barley.....	5 00 @ 8 00	Lard.....	8 @ 11
Alfalfa.....	7 00 @ 9 00	Cal. Sm'k'd Beef	11½@ —
Clover.....	8 00 @10 00	Hams, Cal salt'd	12 @ 13½
Straw, bale	30 @ 50	do Eastern...	13 @ 14
GRAIN, ETC.		**SEEDS.**	
Barley, feed, ctl	75 @ —	Alfalfa.....	— @ —
Do Choice.....	85 @ —	Clover, Red....	15 @ —
Do Brewing	92½ @ —	White.....	25 @ —
Do do Choice...	95½ @ —	Flaxseed.....	2 00 @ 2 25
Do do Gilteddge..	98½ @ —	Hemp.....	3½ @ 4
Do Chevalier....	85½@ 1 10	Mustard, yellow	4 @ —
Do do Gilteddge..	1 15 @ 1 25	do Brown....	3½ @ —
Buckwheat.....	2 00 @ —	**WOOL.**	
Corn, White....	1 25 @ 1 35	**SPRING, 1892.**	
Yellow, large...	1 25 @ —	Humb't & Men'cino	17 @ 21
Do small.....	1 30 @ —	Sac'to valley....	16 @ —
Oats, milling....	1 32½ @ —	S Joaquin valley	11 @ 16
Feed, Choice....	1 27½ @ —	Cala'v & F'th'l.	16 @ 21
Do good.....	1 25 @ —	Oregon Eastern.	12½ @ 19
Do fair.....	1 20 @ —	do valley.....	18 @ 23
Do Common....	1 10 @ —	So'n Coast, def..	10 @ 12
Surprise.....	1 47½ @ —	Nevada (State).	15 @ 19
Black Cal.....	1 05 @ —	**FALL, 1892.**	
Do Oregon.....	— @ —	San Joaq'n, plain	6 @ 8½
Gray.....	1 25 @ 1 32½	do mountain...	9 @ 11
Rye.....	1 10 @ —	do lamb.....	8 @ 9
* Wheat, milling Gilt edged....	1 35 @ —	**HONEY.—1892 CROP.**	
Do Choice.....	1 32½ @ —	WhiteComb, 2-lb	9½@ 12½
Do fair to good..	1 30 @ —	do do 1-lb frame	11½ @ 14½
Shipping, cho'ce	1 30 @ —	White extract'd	7 @ —
Do good.....	1 27½ @ —	Amber do	6½ @ 7
Do fair.....	1 25 @ —	Beeswax, lb....	25 @ 28

* Buyers' bids.

Dried Fruits.

The quotations given below are for average prices received by commission merchants for consignments by growers. Something very fancy fetches an advance on the highest quotations while poor sells slightly below the lowest quotations. Prices, unless otherwise specified, are for fruit in sacks; add for 50-lb. boxes ⅛c per lb., and for 25-lb boxes, ¼c to 1c per lb.

APPLES—1892.		Do do fancy.....	13 @—
Sun-dried, ¼'s, com'on	2½@ 3½	Sun-dr, pl'd, prime, bl.	— @—
Do do prime.....	3½ @ 4	Do do choice.....	— @—
Do do choice.....	4 @ 4½	Do do fancy.....	— @—
Do sliced, common...	3½@ 4	Evap, peeled, in boxes, choice.....	17½@—
Do do prime.....	4 @ 4½	Do do fancy.....	20 @—
Do do choice.....	4½@ 5½	**PEARS—1892.**	
Evap bl., ring, 50-lb bx	7½@ 8½	Sun-dried, quarters...	— @ 3
Fancy higher.		Do sliced	4 @ 5
APRICOTS—1892.		Evap, sliced, in boxes.	7 @ 8
Sun-dried, unbl. com.	4½@ 5½	Do ring do.....	9 @10
Do do prime.....	6½ @ 8	**PLUMS—1892.**	
Do do choice.....	9 @10	Pitted, sun-dried.....	9 @10
Do bleached, prime...	12½@—	Do evap. boxes, choice.	— @—
Do do choice.....	13½@—	Do do fancy.....	— @—
Do do fancy.....	14½@—	Unpitted.....	4 @ 5
Evap. choice, in boxes.	15 @—	**PRUNES—1892.**	
Do fancy, do.....	15½@—	Cal. French, ungraded	7½@ 8
FIGS—1892.		Do graded, 60 to 100..	8½@ 9
Sun-dried, black.....	4½ @ 5	Do do 40 to 60.....	11 @12
Do white.....	3 @—	Fancy sell for more money.	
Do do washed.....	— @	**RAISINS—1892.**	
Do do fancy.....	— @—	London Layers, cluster, ⅌ bx....	1 90 @2 00
Do do pressed.....	— @—	Do choicest do....	1 60 @1 70
Smyrna boxes.....	— @—	Do prime, ⅌ bx....	1 40 @1 45
Do sacks.....	— @—	Loose Muscatels, common, ⅌ bx..	— @ —
GRAPES—1892.		Do choice, do.....	1 25 @1 30
Sun-dried, stemless...	3½@	Do fancy, do.....	— @ —
Do unstemmed	1½ @ 2	Unstem'ed Muscatels, in sacks, ⅌ lb	4 @ 5½
NECTARINES—1892.		Stemmed do do....	— @ —
Red, sun-dried.....	8 @ 9	Seedless do do.....	— @ —
Do Evap., in boxes...	— @—	Do do ⅌ 20-lb bx...	— @ —
White, sun-dried.....	9½@11	Sultanas, unbl, bxs	— @ —
Do evaporated.....	— @—	Do bleached, in bxs	— @ —
PEACHES—1892.		Halves, quarters and eighths 25, 50 and 75 cents higher respectively than whole boxes.	
Sun-dried, unpeeled, common, bleached..	8 @—		
Do do prime, do.....	10 @—		
Do do choice, do.....	12 @—		
Do do fancy.....	12½@—		
Evap, unpe'l'd, choice.	12½@—		

Live Stock.

BEEF.		**MUTTON.**	
Stall fed.....	5 @—	Wethers.....	6½@—
Grass fed, extra.....	5 @—	Ewes.....	6 @—
First quality	4½@—	Do Spring.....	7½@—
Second quality.....	4 @—	**HOGS.**	
Third quality.....	3 @—	Light, ⅌ lb, cents.....	5½@—
Bulls and thin Cows...	2 @—	Medium.....	5 @—
VEAL.		Heavy.....	4½@—
Range, heavy.....	4½@—	Soft	4 @—
Do light.....	5½@—	Feeders	3½@—
Dairy.....	6½@—	Stock Hogs.....	3½@—

Grain and Wool Bags.

Calcutta, spot	5½@ 6
Wool Bags	36 @ 38

Wine.

Red and White Wine from bay counties, vintage of 1891, per gal. in cellar lots.....	10 @ 15

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

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Limes, Mex	5 00 @ 6 00	Fruit in bulk to canners: Pears, 1½@2; Plums, white, 1½@2c; colored, 1@1½; Peaches, freestone and clings, 1½@2½. Extra choice fruit for special purposes sells at an advance on outside quotations.	
Do Cal.....	— @ —		
Lemons, box....	1 00 @ 6 00		
Do Sicily choice	7 50 @ 9 00		
Strawberries, per chest— Longworth...	— @ —		
Sharpless	6 00 @10 00	Beets, sk.....	— @ 75
Peaches, box...	50 @ 85	Carrots, sk.....	40 @ —
Do Mountain...	70 @ 1 00	Okra, dry, lb....	15 @ —
Bl'kberries ⅌ ch	4 00 @ 6 00	Do green box...	25 @ 35
Figs, blk box...	50 @ 75	Parsnips, ctl....	— @ 1 25
Do White.....	40 @ 60	Peppers, dry, lb	10 @ —
Apples.....	40 @ 90	Do grn Chili, bx	20 @ 35
Do Gravenstein	75 @ 1 00	Do do Bells....	20 @ 35
Crabapples. ...	— @ —	Turnips, ctl.....	75 @ —
Canteloupes, pr crate	50 @ 1 00	Cabbage, 100 lbs	45 @ 55
Melons, pr 100..	5 00 @10 00	Garlic, lb.....	1 @ 1½
Nutmegs, ⅌ box	25 @ 40	Squash, Sum, bx	25 @ 40
Grapes, pr bx - Do White.....	30 @ 60	Tomatoes, ...	25 @ 35
Do Black.....	25 @ 50	Do River lrg bx	20 @ 35
Do Muscats....	30 @ 60	String Beans, sk.	1 00 @ 1 50
Do Tokays.....	45 @ 75	do do Wax, lb..	4 @ 5
Prunes, Hung'n	— @ —	Cucumbers, box	20 @ 40
Do German....	50 @ 65	Mushrooms	— @ —
do Gros Gold'dp	50 @ 60	Egg Plant, bx..	20 @ 40
Plums, ⅌ box..	40 @ 65	Green Corn, box	40 @ 75
Pears, Bartlett.	50 @ 75	Mar fat Squash, ⅌ ton.....	8 00 @10 00
Do do choice...	1 00 @		

Auction Sales of California Fruits.

At New York.

Sept. 7.—Two carloads: Bartlett Pears, $2 50; Orange Cling Peaches, $1.40; Susquehanna Peaches, $1 30@2 35; Globe Peaches, $1.85; Tokay Grapes, half-crates, $2@2.30; Muscat Grapes, half-crates, 85c; Japan Plums, $1.25. Some fruit overripe and unsound sold for less.

Sept. 7.—One carload for $1003, gross: Malaga Grapes, single crates, $1,20@1.35; Rose de Peru Grapes, 45c to 55c

Sept. 9.—One carload: Bartlett Pears, $2 20@2.55; Beurre Hardy Pears, $1 95@2.10; Gros Prunes, $1.70@2.10; Plums, $1.20; Egg Plums, $1.10@1.25; German Prunes, $1.60@1.70.

Sept. 10 —One carload: Tokay Grapes, half-crates, $1.95@3 45; Muscat Grapes, half-crates, 85c@1.85; Rose de Peru Grapes, 85c@$1 15; Malvoise, $2 15; Black Morocco Grapes, $1.55; Black Prince, $1.10; Assorted Grapes, $1.40@2.70.

Sept. 12.—Two carloads: Comice Pears, $2.65@2.70; Onondaga Pears, $1.55; Beurre Bosc Pears, $1.20; Malaga Grapes, 95c@$1.10; Tokay Grapes, half-crates, $1 40@1 45

Sept. 12.—Three carloads: Bartlett Pears, $2.80@4; some ripe, $1 95@2.30; Beurre Clairgean Pears, $1 95@$2.10; Beurre Hardy Pears, $1.60@1.75; Gros Prunes, $1.75@2 05; German Prunes, $1.75@1.90; Fellenberg Prunes, $1.75; Egg Plums, $1.35@1.45.

Sept. 13.—Two carloads: Beurre Hardy Pears, $1 45@1.55; Bartlett Pears, $1 85; half-boxes, $1.10@1.15; Tokay Grapes, single crates, $1.35@2; double crates, $2 60@2 87; Muscat Grapes, single crates, 55@80c; double crates, $1.50; Japan Plums, $1.50; Red Nectarines, $1.75@2 40.

At Chicago

Sept. 7.—Three carloads: Bartlett Pears, $1 90@2.30; Beurre Clairgeau Pears, $1 60; Flemish Beauty Pears, $1.50; Tokay Grapes, $2.50, half-crates, $1 30@1.40; Muscat Grapes, $1.75: half-crates, 90c; Susquehanna Peaches, $1.40; Salway Peaches, $1.35; Freestone Peaches, $1.30; Orange Cling Peaches, $1.20@1.25; Yellow Free Peaches, $1.60; Yellow Cling Peaches, $1.25; Cling Peaches, $1.15; Gros Prunes, $1.40@1.45; Fellenberg Prunes, $1.25; German Prunes, $1.10; Silver Prunes, 85c@$1; Japan Plums, $1 15; Egg Plums, $1.05@1.10.

Sept. 7.—Four carloads: Bartlet pears, $1 65@2.60; Tokay Grapes, 90c@$2.20; Muscat Grapes, single crates, 60c@$1.15; double crates, $1.60; Beurre Clairgeau Pears, $1 50; Figs, 25@40c; Peaches, 75c@$1.35; Nectarines, $1 35; Japan Plums, 80c@$1.35; Rose de Peru Grapes, 60@80c; Malvoise Grapes, $1@1 15; Fellenberg Prunes, $1.10; Silver Prunes, 85c; Gros Prunes, $1.40; Egg Plums, $1.15; Columbia Plums, 80c; Gages, 80c.

Sept. 8.—Seven carloads: Muscat Grapes, single crates, 70c@$1.50; Tokay Grapes, single crates, 90c@$1 95; Rose de Peru Grapes, 40@80c; Peaches, $1@1 70; Beurre Hardy Pears, $1.75@2.10; Beurre Clairgeau Pears, $1.50@1 70; Malaga Grapes, 55@80c; Hungarian Prunes, $1.25@1.50; Grapes, 70@95c; Nectarines, $1.30; Bartlett Pears, $1.45@2 55; Egg Plums, 75c@$1.20; Japan Plums, 85c; Gros Prunes, $1.45@1.95; Fellenberg Prunes, 80c@$1 30; Damsons, $1.40.

Sept. 8.—Six carloads: Bartlett Pears, $2 15@2 55; Beurre Clairgean Pears, $1.60@2; Beurre Hardy Pears, $1.60@1.75; Congress Pears, $1 50; Orange Cling Peaches, $1.10@1.50; Roseville Cling Peaches, $1.15; Lemon Cling Peaches, $1.05@1.10; McKevitt Cling Peaches, 95c@$1.35; Quinces, $1.05@1.30; Tokay Grapes, $2,40; half-crates, $1@1.35; Muscat Grapes, $1.55; half-crates, 65@80c; Japan Plums, $1@1.10; Egg Plums, $1.10@1.20; Gros Prunes, $1.60; German Prunes, $1.25@1.30. Some fruit, in a damaged condition, sold for less.

Sept. 9.—Six carloads: Muscat Grapes, double crates, $1.25; single crates, 50c@1.75; Malaga Grapes, 50@85c; Tokay Grapes, 65c@$1.50, double crates, $2@$2.40; Beurre Clairgeau Pears, $1.45@1.75; Howell Pears, $2.20; Dutchess Pears, $1.45; Deil Pears, $1.25; Bosc Pears, $2.50; Onondaga Pears, $1.85; Bartlett Pears, $1.75@2.70; half-boxes, $1.30; Pears, $2.50; half-boxes, $1.15@1.25; Japan Plums, $1 15; Peaches, 50c@$1.70; Nectarines, $1.20; Vicar Pears, $1.30; Winter Nelis Pears, $1 10@1 35; Figs, 55c.

Sept. 9.—Eight carloads: Bartlett Pears, $2.25@2.45; Beurre Hardy Pears, $1.35; Congress Pears, $1 40; Beurre Clairgeau Pears, $1 45@1.65; Onandago Pears, $1.40@to $1.45; Duchess Pears, $1.35@1 65; Salway Peaches, $1.50; Orange Cling Peaches, $1.15; White Cling Peaches, $1.05; McKevitt Cling Peaches, $1; Roseville Cling Peaches, $1; German Prunes, $1 40; Silver Prunes, $1.05@1.10; Fellenberg Prunes, $1 35; Ickwith Plums, $1.25; Quinces, $1 50; Japan Plums, $1.05@1.10; Tokay Grapes, $1.90; half-crates, $1.05@$1.25; some small and poor color, 65@85c; Muscat Grapes, $1.35; half-crates, 60@65c; Grant Cling Peaches, $1.25.

Sept. 10.—Two carloads: Bartlett Pears, good condition, $2.15@2.30; Beurre Hardy Pears, $1 60@1.65; Beurre Clairgeau Pears, $1.30@1.60; Onondago Pears, $1.40; Doyenne Pears, $1.50; Salway Peaches, $1 40; Susquehanna Peaches, $1.35; Roseville Cling Peaches, 90@95c; Tokay Grapes, $1.90; half-crates, $1@1 10; some without color, 60@80c; Muscat Grapes, $1.35; half-crates, 60c; Gros Prunes, $1.50; German Prunes, $1.15@1.35; Kelsey Japan Plums, $1; Egg Plums, 85c@$1.10.

Sept. 10.—Six carloads: Bartlett Pears, $2@2.40; Beurre Hardy Pears, $2@2.25;' Peaches, $1.15@1 50; Tokay Grapes, single crates, $1.10; Grapes, single crates, 45c@$1.40; Egg Plums, 85c@$1.20; Japan Plums, $1.20@1.25; German Prunes, $1.20; Gros Prunes, $1.65; Silver Prunes, 85c@$1; Fellenberg Prunes, $1.15 Howell Pears, $2.30@2.50; Verdel Grapes, poor condition, 40@50c; Comice Pears, $2.30@2 50; Quinces, $1.65.

Sept. 12.—Five carloads: Comice Pears, $2.10@2.25; Duchess Pears, $1.50; Beurre Clairgeau Pears, $1.50@$1.65; Howell Pears, $2.55; Quinces, $1.25@1.45; Damsons, 60c; Bartlett Pears, $1.70@2.45; half-boxes, $1.05; Peaches, 75c@$1.60; Muscat Grapes, single crates, 55c@$1.40; Tokay Grapes, single crates, 75c@$2; double crates Muscats, $1.40; double crates Tokays, $2; Rose de Peru Grapes, 60c; Plums, 85c@$1.50; Seckel Pears, 75c.

Sept. 12.—Six carloads: Bartlett Pears averaged $2 per box; Beurre Hardy Pears, $1.80; Beurre Clairgeau Pears, $1.65; Salway Peaches, $1.25@1.40; Edward's Cling Peaches, $1.50; McDevitt Cling Peaches, $1.50@$1 55; George's Late, $1.10; Crawford Peaches, $1; Grant's Cling Peaches, $1; Lemon Cling Peaches, 90c; Red Free Peaches, $1.15; Tokay Grapes, $1.50@2; half-crates, 70@85c; Muscat Grapes, $1 35; half-crates, 60@65c; some bad, 45c; Egg Plums, 95c@$1.50; Gros Prunes, $1.50@1.80; German Prunes, $1.35; French Prunes, 95c; Silver Prunes, 90c.

Sept. 13.—Six carloads: Muscat Grapes, single crates, 65c@$1.65; double crates, $1.35@1.40; Tokay Grapes, single crates, 95c@$1.65; double crates, $2 20@2.30; Malaga Grapes, 60@85c; Figs, 70c; Egg Plums, 90c@$1.05; Peaches, 85c@$1.50; Bosc Pears, $2.30; Bartlett Pears, $1.60@2.60; half-boxes, $1.05; Silver Prunes, $1; Howell Pears, $2.25; Superb Pears, $2.45; D'Anjou Pears, $1 90; Beurre Hardy Pears, $2.05; Diel Pears, $1.50; Vicar Pears, $1.30; Pears, $2; Verdell Grapes, 70c

At Boston.

Sept. 7.—Three carloads: Bartlett Pears, $1.65@2 40; Tokay Grapes, half-crates, $1.35@2; Rose de Peru Grapes, 75c@95c; Muscat Grapes, half-crates, 70c@95c; Black Malvoise Grapes, 95c; Susquehanna Peaches, $1.50; Golden Cling Peaches, $1.20; Lemon Cling Peaches, $1@1.15; Cream Cling Peaches, 95c; McKevitt Cling Peaches, 85c@90c; Rose Cling Peaches, 85@90c; Orange Cling Peaches, 95c@1.25; Late Crawford Peaches, $1 30; Kelsy Japan Plums, $1.10@2; Gros Prunes, $1.10@1.25; Silver Prunes, 80c@$1.05.

Sept. 8.—Two carloads: Gros Prunes, $1.30@1.75; German Prunes, $1.25@1.35; Silver Prunes, 80c; Bartlett Pears, $1.10@2.80; Beurre Hardy Pears, $2.35; Egg Plums, 95c@$1.40; Japan Plums, $1.05; Orange Cling Peaches, $1.15@1.20; Late Crawford Peaches, $1.30; Lemon Cling Peaches, $1.15; Taylor Cling Peaches, $1.25.

Sept. 10.—Two carloads: Tokay Grapes, $3.20; half-crates, $1 35@2.10; Muscat Grapes, half-crates, 85c@$1.05; Golden Cling Peaches, $1.30; McKevitt Cling Peaches, 95c@$1.15 Roseville Cling Peaches, $1.05; White Cling Peaches, 95c; Red Nectarines, $2@1.25; Bartlett Pears, $1.55@1.85.

Sept. 13.—Three carloads: Salway Peaches, $1.50; Susquehanna Peaches, $1.25@1 60; Lemon Cling Peaches, $1.25@1.50; White Cling Peaches, $1.30; Golden Cling Peaches, $1.40; Roseville Cling Peaches, $1.35; Bartlett Pears, $1.60@2.10; Tokay Grapes, $3 50; half-crates, $1.40@1.75; Muscat Grapes, $2 10; half-crates, $1@1.20.

At Minneapolis.

Sept. 8.—One carload: Pears, $1.65@1.85; Peaches, $1;35@1.40.

Sept. 8 —Three carloads: Orange Cling Peaches, $1.20@1.35; Lemon Cling Peaches, $1@1.25; White Cling Peaches, $1.10@1.25; McKevitt Cling Peaches, $1.15; Gros Prunes, $1.85@1.95; German Prunes, $1.20@1.30; Egg Plums, $1.15@1.30; Red Nectarines, $1; Muscat Grapes, $1.65; half-crates, 85c@95c; Tokay Grapes, half-crates, $1@1.20; Bartlett Pears, 90c@1.85; Howell Pears, $1.70; Beurre Clairgeau Pears, $1.15@1 50.

Sept. 9.—Three carloads: Peaches, $1@1.30; Pears, $1.65@2; Grapes, 60c@$1.40; Rose de Peru Grapes, 70c; Muscat Grapes, 80c; Tokay Grapes, $1.25; Plums $1@1.55

Sept. 10.—Two carloads: Gros Prunes, $1.70@1.75; German Prunes, $1 20@1.25; Silver Prunes, 85c; Damson Plums, $1.80; Egg Plums, 70 @1.05; Bartlett Pears, $1.65@2; Beurre Hardy Pears, $1 85; Beurre Clairgeau Pears, $1 65@1 75; Quinces, $2 20.

Sept. 13.—Four carloads: Bartlett Pears, $2.25@2.35; Winter Nelis Pears, $1.55; Tokay Grapes, $2; half-crates, 85c@$1.20; Muscat Grapes, $1; half-crates, 50@75c; Orange Cling Peaches, $1@1.25; White Cling Peaches, $1.25; Red Nectarines, 90c.

Sept. 13.—Three carloads: Pears, $1.10@2.15; Peaches, $1@1.20; Malaga Grapes, 55c; Quinces, $1.70@1.75.

At Omaha.

Sept. 9.—Three carloads: Peaches, $1 25@1.50; Pears, $1.25@2 25; Quinces, $1.50@1 75.

Sept. 12.—Three carloads: Pears, $1.60@2; Plums, $1@1.25; Peaches, $1.25@1.50; Bartlett Pears, $1.25@2.

At Montreal.

Sept. 7.—Three carloads: Susquehanna Peaches, $1.25@1.55; White Cling Peaches, $1 25; Rose Cling Peaches, $1.35; Lemon Cling Peaches, $1.10@1.15; Cream Cling Peaches, $1.10@1.15; Strawberry Cling Peaches, $1 10@1.15; Bartlett Pears, $1.25@3; Tokay Grapes, half-crates, $1 30@2 10; Black Hamburg Grapes, half-crates, 65c; Rose de Peru Grapes, half-crates, 75c; Golden Cling Peaches, $1.40; Orange Cling Peaches, $1.25@1.55.

HOW TO TRAIN CHILDREN.—Be very vigilant over thy child in the April of his understanding, lest the frosts of May nip his blossoms. While he is a tender twig, straighten him; whilst he is a new vessel, season him; such as thou makest him, such commonly shalt thou find him. Let his first lesson be obedience, and the second shall be what thou wilt. Give him education in good letters, to the utmost of thy ability and his capacity. Season his youth with the love of his Creator, and make the fear of his God the beginning of his knowledge. If he have an active spirit, rather rectify than curb it; but reckon idleness among his chiefest faults. As his judgment ripens, observe his inclination and tender him a calling that shall not cross it. Forced marriages and callings seldom prosper. Show him both the mow and the plow, and prepare him as well for the danger of the skirmish as possess him with the honor of the prize.—Quarles.

A REMARKABLE imitation of black walnut may be manufactured from poor pine, the quality and appearance of the article being such as to defy detection, except upon very close examination. To accomplish this, one part of walnut peel extract is mixed with six parts of water, and with this solution the wood is coated. When the material is half-dry, a solution of bichromate of potash, with water, is rubbed on it and the made walnut is ready for use.

THAT which is popularly known as the funny bone, just at the point of the elbow, is in reality not a bone at all, but a nerve which lies near the surface, and which, on getting a knock or blow, causes the well-known tingling sensation in the arms and fingers.

THE BALLOON IN WAR.—A series of interesting experiments was conducted the other night at Stanford Bridge grounds, London, with balloon and apparatus invented and improved by Mr. Eric Bruce for use in military signaling at night over intervening woods and hills, says the London *News*. Within the balloon are hung on a small swinging ladder six incandescent lamps, connected by insulated cable with a battery on the ground, worked that night at 24 volts and giving 60 candlepower of illumination. By ready manipulation of the buttons at the instrument, the operator flashes on the translucent sides of the balloon the signals of the Morse or any code, and these can be easily read at a distance of six miles. The balloon used was a small one of 18 feet diameter, containing 1000 feet of gas, and was held by a cable at a height of 300 feet. The strong wind prevailing rendered the position of the balloon unsteady and uncertain, but the signals were, nevertheless, read by military experts and answered from a station on land. The experiments were witnessed by Prince Edward of Saxe-Weimar, by military attaches of the Chinese and other embassies, and a number of scientific men. The experiments were varied by hanging the lamps outside below the neck of the balloon and flashing direct. The illuminated balloon, when a few feet above ground, gives a beautiful light, and can be utilized when required for executing work at night.

THE CROTON AQUEDUCT SYSTEM.—Although something like $25,000,000 have been expended already on the New York water system, including about $15,000,000 for a new aqueduct to provide adequately for the future wants of the city, a new dam in the valley of the Croton river is necessary, which will cost in the neighborhood of $4,150,000. So far as the Aqueduct Commissioners know, this is by a large figure the greatest sum ever proposed to be expended in a dam for aqueduct purposes, at least in this country. Contractors were invited to submit bids, and the enormity of the work, the large amount of bonds required, and the great capital necessary to carry it on, limited the number of bidders. Only six firms made propositions, and the sums they offered to do the work for varied in round numbers from $3,500,000 to $5,566,000. The contract was awarded to ex-Commissioner of Street-Cleaning J. S. Coleman at his figure of $4,140,573. Engineers the world over will watch the construction of this dam with lively interest. Some difficult problems are to be solved. An enormous watershed is to be controlled by it. It is to be furnished really as a reservoir, wherein are to be dammed up the entire waters of the Croton watershed; containing thousands of millions of gallons, and from it are to be drawn such supplies as the present aqueduct does not furnish.

CELLULOID.—It is said that celluloid was discovered in 1689 by Hyatt. It is prepared by directing a jet of a mixture of five parts sulphuric acid and two parts nitric acid upon a roll of unsized paper, which is slowly unrolled by machinery to receive it. It then becomes pyroxylin, a variety of nitrocellulose. After washing, the compound is ground with camphor until thoroughly incorporated, and then dried under a hydraulic press between bibulous paper, again ground and compressed in a special apparatus and heated to a certain temperature, when it becomes a translucent, hard and elastic substance, capable of high polish. When heated to 250° F. it becomes soft and malleable, can be drawn into very thin leaves, which, being mixed with various colored substances, is made into a variety of articles. It is soluble in methyl alcohol, amyl acetate, a mixture of ether and alcohol, either ethylic or methylic, in a solution of zinc chloride, in twice its weight of hydrochloric acid, etc.

A NOVEL CANDLESTICK.—The make an unusual kind of candlestick insert an iron nail in the lower end of a short candle in order to make that end heavier and place the whole in a glass containing enough water to reach the upper edge of the candle without wetting the wick. As the candle burns it grows lighter and lighter and rises gradually as it diminishes in length, so that the lighted end always remains above the surface of the water. Moreover, the outside of the candle being cooled off will melt much more slowly than usual and the flame will make a little hollow in the center. This hollow place also helps in making the candle float and preserves the wick from the water. Thus the candle will continue to burn until the wick is consumed.

IT appears that a colored or dark pigment in the olfactory regions is essential to perfect smell. In cases where animals are pure white, they are usually totally devoid of both smell and taste; and some, the white cat, for instance, are almost invariably deaf.

Red Spider on Fruit Trees.

Some of the orchardists are complaining that the red spider, which attacks the pear, prune and almond trees, has made its appearance in this locality. The first effect noticed from the presence of the spider is the falling of the leaves. To discover if a tree is infested or not, shake the leaves over a sheet of white paper, and if they are there, the spiders can be seen on the paper, although they are very small. Following are directions for making a solution that will kill the spiders and work no injury to the trees. This preparation has been used at the Carnelita and Mount Campbell vineyards, and is highly recommended by Mr. Earl:

Lime.....25 pounds
Sulphur.....20 pounds
Salt.....15 pounds

DIRECTIONS.

Winter remedy—Take 10 pounds of lime, 20 pounds of sulphur and 20 gallons of water; boil until the sulphur is thoroughly dissolved. Take the remaining 15 pounds of lime and 15 pounds of salt, and when thoroughly slacked, mix together and add enough water to make in all 60 gallons of solution, strain and spray warm.

Summer remedy—Add to the above solution two times as much water as you have solution, or two gallons of water to one of the solution. It is also thought best to use 10 pounds of salt instead of 15 in the summer remedy.

The winter remedy is never to be used on trees while in foliage, for the reason that there is great danger of killing the tree. The solution should be kept well-stirred while spraying. If drawn on a wagon, the motion of vehicle is sufficient. Spray on the underside of the leaves, as that is the place the spiders stay. Three men and team can spray 40 acres daily of two-year-old trees.—Reedly Exponent.

Agricultural Fairs.

State Fairs.

STATE.	PLACE AND SEC'Y.	DATE.
Oregon	Salem, J. T. Gregg	Sept. 12–17
California	Sacramento, Edwin F. Smith	Sept. 5–17
Washington	Spokane	Sept. 19–24
Nevada	Reno, C. H. Stoddard	Sept. 10–14

District Fairs.

NO.	PLACE AND SEC'Y.	DATE.
2	Stockton	Sept. 19–Oct. 1
5	Santa Clara, George H. Bragg	Sept 26–Oct 5
6	Los Angeles	Oct. 3–5
7	Salinas City, J. J. Kelley	Oct. 4–8
9	Rohnerville, G. Underwood	Sept. 19–23
10	Yreka, C. S. Smith	Oct. 5–8
11	Sierraville, Fred Blinman	Oct. 3–7
12	Lakeport, H. A. McCraney	Sept. 27, Oct. 1
14	Santa Cruz, Oscar L. Gordon	Oct. 10–15
15	Bakersfield. J. J. Kelly	Oct. 11–16
16	San Luis Obispo, J. H. Barrett	Sept 27–Oct 1
18	Independence, C. W. Craig	Sept. 27–30
20	Auburn, F. D. Adams	Aug. 30–Sept. 3
21	Fresno, J. M. Reuck	Sept. 26–Oct. 1
22	Escondido, G. M. Dannals	Sept. 21–24
26	Ione, C. T. La Grave	Sept. 27–30
27	Redding, H. R. Hodson	
28	San Bernardino	
32	Santa Ana, W. A. Beckett	Oct 3–7
33	Hollister, A. D. Shaw	Oct. 11–15
35	Merced	
36	Vallejo	Oct. 4–8
37	Lompoc, W. I. Nichols	Sept. 20–23
38	Modesto	Sept. 28–Oct. 1

Complimentary Samples.

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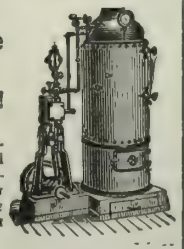
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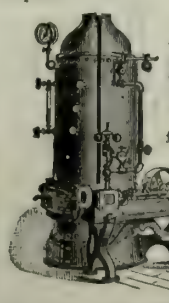
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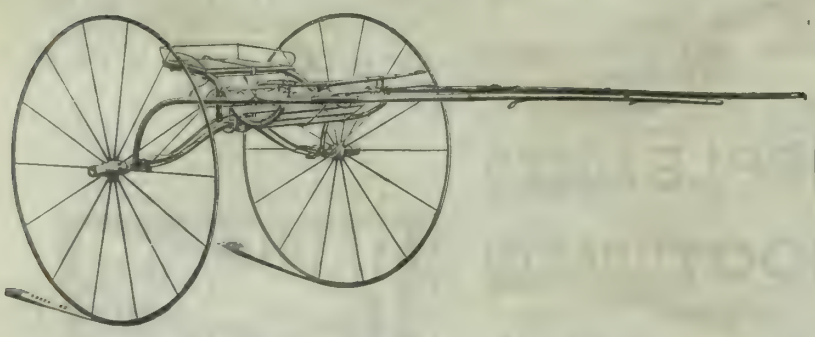

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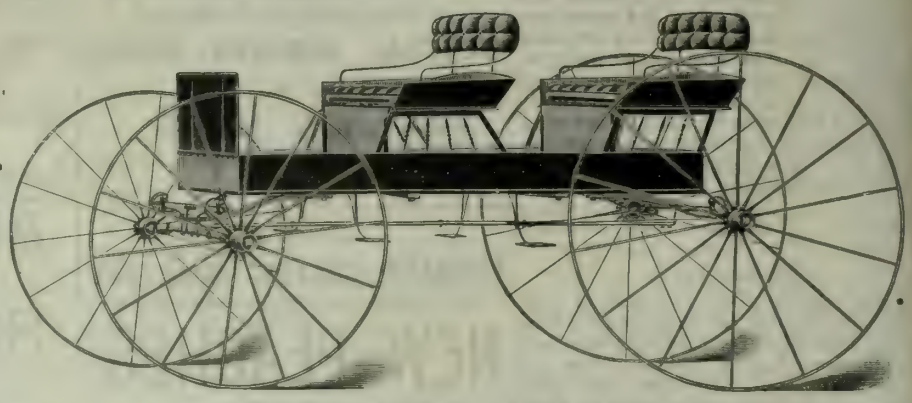
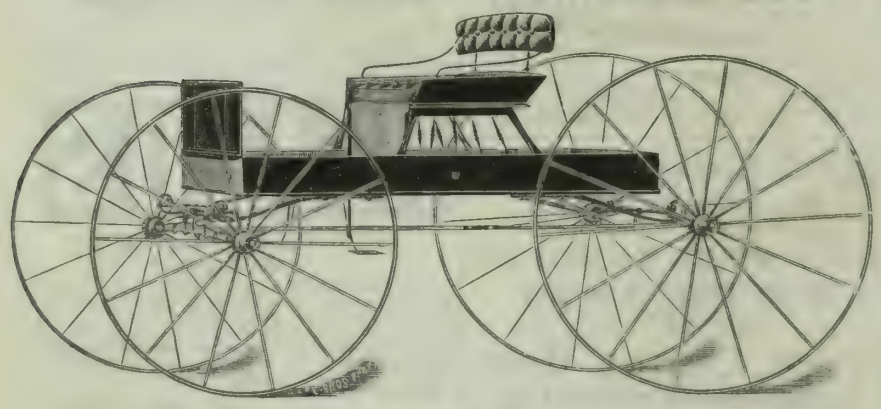
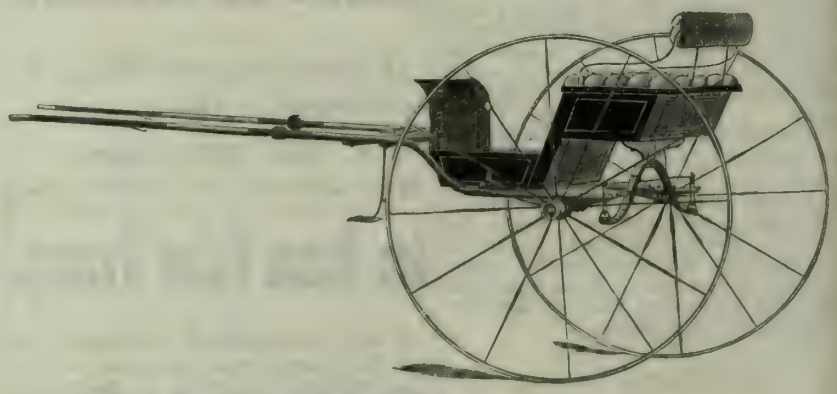


No. 18. Two-Seat Pleasure Cart or Market Wagon.



No. 17. Road Wagon.



No. 14. Phaeton Body Cart.

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DEERE IMPLEMENT CO., 305 & 307 Market St., San Francisco.

Gem Steel Windmill,

WITH GRAPHITE BOXES.

Never Requires Oiling or Climbing of Towers.

Guaranteed more durable without oil than other mills that are oiled.

Practically, this mill requires no attention. Truly a Gem and worth its weight in gold. It combines Beauty, Strength, Durability and Simplicity. Governs itself perfectly, is easily erected and is sold on its merits. In fact it is the best mill on earth. They are geared back three to one—the whole making three revolutions to one stroke of the pump—making them run in the lightest wind or breeze. The mill is made entirely of Steel and Cast Iron. Each one of our Gem Windmills is warranted. If not satisfactory freight will be paid both ways and money refunded.

Send for Catalogue—Mailed Free.

WE ALSO CAR[illegible]

Pumps of all kinds, Tanks, [illegible] Fittings, Hose, Etc.

Cal State Library 78345 51 '93

Fig. 398.

Force Pump, $7.50 Cash.

These pumps are made especially to take the place of our more expensive Suction and Force Pumps; they have a brass stuffing-box, nicely turned up and finished, through which a brass-cased piston rod passes; a brass valve seat, and, with a revolving brake and bearer, it is available in any imaginable position. You are capable of forcing water into a tank or attaching a hose to the spout of pump for washing windows, carriages, watering gardens, sprinkling streets, etc. It is the most valuable pump for extinguishing fires, etc. This pump is adapted for wells where it is not over 28 feet to water; they will force water 50 feet in height if necessary.

Star Suction & Force Pump

FOR WINDMILL OR HAND USE.

Best Windmill Pump in Use.

Send for our Catalogue giving full description of all kinds of Pumps, for Hand, Windmill and Power Use.

BRASS GOODS, HOSE, POWERS, in fact, everything connected with Pump and Pipe Business.

SEND FOR CATALOGUE, MAILED FREE.

WOODIN & LITTLE,

312 & 314 Market St., San Francisco, Cal.

HERCULES Steel and Iron WINDMILL

Perfection of Principle Attained in Windmills.

Runs When Others Stand. Noiseless. Self-Oiling Bearings. Regulation Perfect. Two Turns of Wheel One Long Stroke.

NO JERK.

I will sell in places where I have no agency one or two windmills at a special low rate to introduce them.

A special lot of TANK that MUST be sold, made of clear, dry redwood.

Hercules, Improved Davis and San Joaquin Windmills, Tanks, Etc.

Write for prices and testimonials.

SPECIAL BARGAINS—One 15-H. P. Otto Gas Engine. One 20-H. P. Portable Steam Engine.

WORKS: Cor. Main & Otter Streets, OFFICE: 347 Commerce Street, STOCKTON, CAL.

R. F. WILSON, Prop'r.

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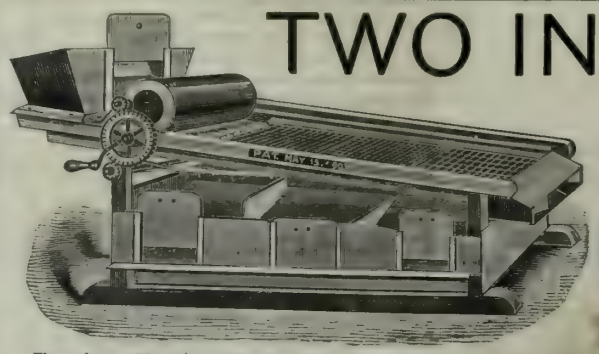


TWO IN ONE.

1892.

HAMILTON PRUNE GRADER

The only machine that will grade with equal facility both green and dried fruits. It is desirable to grade prunes both before they are dried and absolutely necessary after.

ECONOMICAL.

It is the best economy to have one machine which you can use for both green and dried fruit, saving time money and valuable space. No complicated machinery to get out of order and do imperfect work.

VERY SPEEDY.

No machine compares with this in speed. Will grade apricots for drying, also walnuts and pecans.

W. C. HAMILTON, near Narrow Gauge R. R. SAN JOSE, CAL.

PACIFIC RURAL PRESS

Vol. XLIV. No. 13. SAN FRANCISCO, SATURDAY, SEPTEMBER 24, 1892. THE DEWEY PUBLISHING CO. Office, 220 Market St.

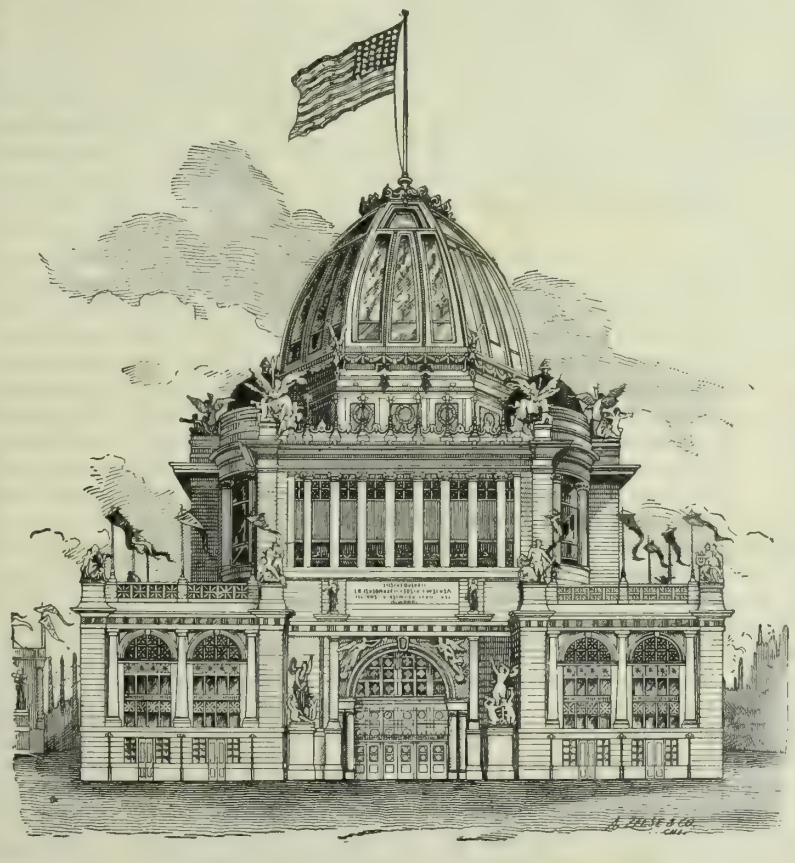
The World's Fair Buildings.

In connection with the general bird's-eye view of the World's Columbian Exhibition which was recently presented on this page, a promise was made to give views of the individual structures as occasion offered. In accordance with the plan we have on this page two buildings which will perhaps prove among the most attractive of the fair to most visitors.

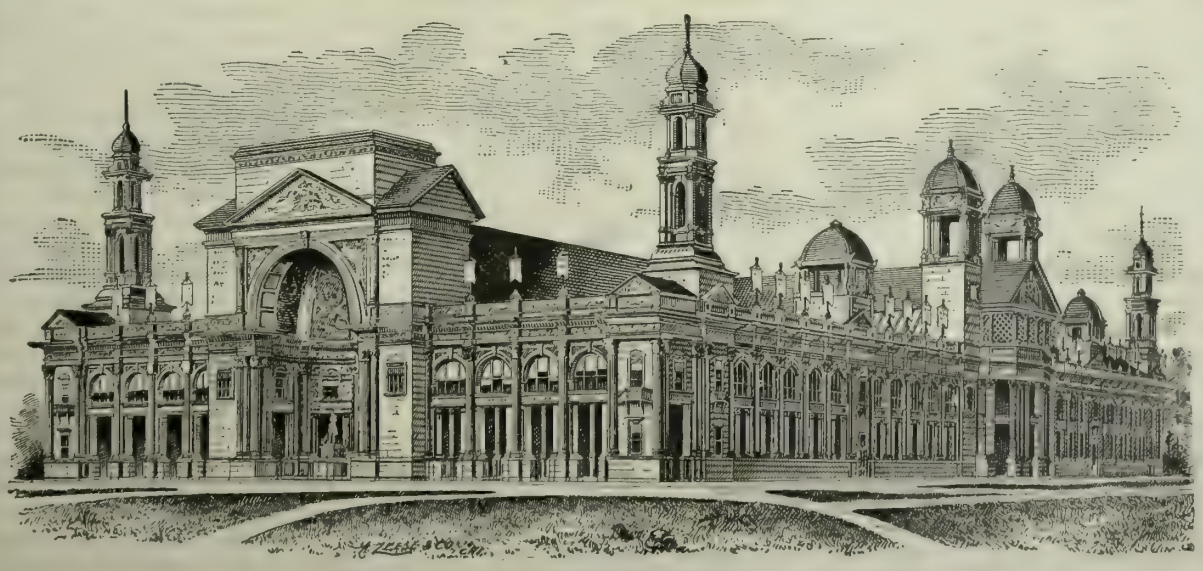
The Administration Building is expected to be the most imposing and beautiful of all the great palaces to be erected on the World's Fair grounds. It will be the most ornate, and in proportion to its size, much the most costly of them all. It is situated upon a slight eminence already known as the "administration hill," and from it the observer will gain a realistic sense of the distinctive features and general magnitude of this stupendous undertaking. At this point he is practically in the center of the sites allotted to the principal buildings and the system of terrace work which will surround them.

The cost of the Administration building was estimated at $50,000, and it covers an area 225 feet square. It consists of four pavilions, 84 feet square, one at each of the four angles of the square of the plan, and connected by a great central dome, 120 feet in diameter and 250 feet in height, leaving in the center of each facade a recess 82 feet wide, within which is a grand entrance to the building. The general design is in the style of the French renaissance, carried out in the academic manner of the Ecole des Beaux Arts. The first great story is in the Doric order, of heroic proportions, surmounted by a lofty balustrade, and having great piers at the angles of each pavilion, crowned with sculpture. The second story, with its lofty colonnade, is in the Ionic order. Externally the design may be divided in its height into three principal stages. The first stage consists of four pavilions, corresponding in height with the various buildings grouped about it, which are about 65 feet high. The second stage, which is of the same height, is a continuation of the central rotunda, 175 feet square, surrounded on all sides by an open colonnade of noble proportions, it being 20 feet wide and 40 feet high, with columns four feet in diameter. This colonnade is reached by staircases and elevators from the four principal halls, and is interrupted at the angles by corner pavilions, crowned with domes and groups of statuary. The third stage consists of the base of the great dome, 30 feet in height and octagonal in form, and the dome itself, rising in graceful lines, richly ornamented with heavily molded ribs and sculptural panels, and having a large skylight of glass to light the interior. At each angle of the octagonal base are large, sculptured eagles, and along the springing lines are panels, with rich garlands. This great dome will be gilded, and rising at the end of the long vistas, which open up in every direction, across the lagoons and between the adjoining palatial buildings, will form a fitting crown to the whole system of buildings and environment.

The other building shown upon this page is that devoted to electrical science and art. In view of the astonishing progress recently made in the application of electricity to human uses, it is probable that great popular interest will center in this structure. The building is 345 by 709 feet, thus covering an area of nearly six acres, and its cost is estimated at $375,000. Naturally, the largest exhibitor in the Electricity Building will be Thomas A. Edison. He applied for 35,000 feet of space, or about one seventh of all that the Electricity Building contains, and has determined "that his display at the Fair shall be the greatest achievement of his life. In talking of his application for space Mr. Edison admitted that he was asking for a large section of the building, 'but every inch will be put to good purpose,' he added. 'I shall not waste a foot of the area assigned to me, but will present a series of the most interesting electrical inventions ever produced.". He is making an almost innumerable list of novel and spectacular exhibits. Other electricians are not idle, and the building promises to be crowded throughout.



ADMINISTRATION BUILDING, WORLD'S FAIR.



ELECTRICITY BUILDING, WORLD'S FAIR AT CHICAGO.

GOOD PRICES FOR WINE GRAPES.—The market for wine grapes opened this season at quite an advance on prices which have obtained at any time within the past four years. The advance emphasizes the shortage in the crop and gives assurance of better prices for California wines. Already the price of the latter for cellar parcels of the 1891 vintage has been advanced about five cents a gallon over the range ruling one month ago. The latest sales of wine grapes range as follows: Common varieties (Zinfandel, Mataro, etc.) in the country at from $11 to $15 per ton, and choice varieties (Cabernet-Simillon, etc.) at from $20 to $25 per ton. The range of values for Zinfandel is as follows: In Napa county, $14 to $15 per ton; Sonoma, $11 to $12; Santa Clara, $12 to $13.50, and in San Francisco, $17.50 to $21. The higher range in Napa county is due to the crop not being equal to the demand. Some of the wineries in Napa county have to buy supplies in Sonoma county. It is contended by some dealers that before the season is over still higher prices will rule for all varieties of wine grapes.

HAWAIIAN SUGAR INTERESTS—The island sugar interests seem to be somewhat in a bad way through drouth and the McKinley bill, which removed the sugar duty of 2¼ cents per pound. At a meeting of the Hawaiian Commercial Sugar Co., in this city last week, it was announced that the company had already made an overdraft of $40,000, besides interest due, and if they attempt to continue the plantations they will be $271,988 behind. It was also said that if they ran the concern next year and should produce say 10,000 tons of sugar next year at the same cost as this year, and sell it at the same price; they would lose $380,000 more, and on Jan. 1, 1894, they would be in debt over $650,000. From this it rather clearly appears who made the money when Hawaiian sugar came in free and the sugar of the rest of the world had to pay duty. Claus Spreckels has a bond on the stock of the company and can foreclose it at at any time. During its life the bankrupt company is said to have paid $840,000 in dividends since its organization.

THE Persian fat-tailed ewe at the Golden Gate Park has a lamb, and the foreman of the station at Paso Robles writes that he has expectations of the ewe in his charge.

PACIFIC RURAL PRESS.

By The Dewey Publishing Co.

Office, 220 Market St.; Elevator, 12 Front St., San Francisco., Cal.

Annual Subscription Rate Three Dollars a year. While this notice appears, all subscribers paying $3 in advance will receive 15 months' (one year and 15 weeks) credit. For $2 in advance, 10 months. For $1 in advance, five months. Trial subscriptions for three months, paid in advance, each 60 cents.

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	1 Week.	1 Month.	3 Months.	1 Year.
Per Line (agate)	$ .25	$ .50	$ 1.20	$ 4.00
Space each (1 square)	1.00	2.50	6.50	22.00
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Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type, or in particular parts the paper, at special rates. Four insertions are rated in a month.

Registered at S. F. Post Office as second-class mail matter.

Any subscriber sending an inquiry on any subject to the Rural Press, with a postage stamp, will receive a reply, either through the columns of the paper or by personal letter. The answer will be given as promptly as practicable.

Our latest forms go to press Wednesday evening.

ALFRED HOLMAN.....General Manager

San Francisco, September 24, 1892.

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BUSINESS ANNOUNCEMENTS.

[NEW THIS ISSUE.]

Agricultural Implements—Truman, Hooker & Co.
Agricultural Implements—H. C. Shaw Plow Works, Stockton.
Agricultural Implements—Frank Brothers.
Disc Harrows—Baker & Hamilton.
Harrows—G. G. Wickson & Co.
Sale of Horses—Killip & Co.
Almond Trees—Percy W. Treat, Davisville.
Percheron Horses—Wm. B. Collier, Lakeport.
International Dictionary—G. & C. Merriam Co., Springfield, Mass.
Stock Scales—C. H. Lindemann.
Situation Wanted—H. O.

☞ *See Advertising Columns.*

The Week.

Meteorological matters seem to be shaping for rain. Atmospheric conditions, which all recognize as portending this, have been noticeable for the last week. The trade winds have relaxed their hold. Fogs and mists threatening moisture have replaced the dry fogs of midsummer. The light wind has the scent of dampened earth upon it. The clouds disclose autumnal aspect. Even the midday sun has a different brilliancy from that of our dry season. All such signs which the lay reader of weather science gives heed to are enforced by the announcement of the professional observers, who record rain at the north and east and movements along the upper coast which disturb barometrical affairs in our latitude. It seems likely that the "first rain" will not be long deferred.

Fortunately, it is not likely that rain will yet reach interior valley regions in any amount. For weeks to come the raisins will need clear sunshine and absence of showers. In coast regions the weight of orchard fruit-drying has been effected, and owing to improved wine-grape prices, there will probably be less drying than usual. But much rain in the fall is not desirable. Even the feed is seldom improved and often injured by an early downpour. Still sometimes it comes, and the outlook seems to be as good for this year as ever. The thoughtful man will hardly need the suggestion that his exposed grain and hay should be covered and his leaky roofs made tight before a rain may bring him loss or discomfort.

On the whole, it will be pleasant to greet a change in the season just as soon as property interests are ready for it. Fresh grass and dust-free evergreen foliage will be delightful to contemplate. Hard and dustless highways will delight the carriager and teamster. The mellow air and the genial sun heat of autumn make the last months of the year the most delightful of all for open-air life in California.

The Chrysanthemum Show.—The State Floral Society at its regular meeting, September 16th, decided upon holding a grand crysanthemum show in the Mechanics' Pavilion on November 1st to 4th prox. There is a full list of liberal premiums offered, and the active interest of all flower growers, both amateur and professional, is solicited. Premium lists can be had on application to Miss E. F. Bailey, Secretary of the Exhibition Committee, 309 Fell street, San Francisco. The exhibition of all horticultural merchandise is invited, and special space will be set apart for such trade displays.

California a Fruit Orchard for Great Britain.

It will please many California fruitgrowers to have such a name bestowed by British authority as a result of the enterprising efforts put forth during the last few weeks to introduce our fruit to British markets. A letter received in this city from a prominent resident of Liverpool contains these sentences:

"This week we have had a most wonderful exhibition of California green fruit being sold in our markets. I never have believed that plums, peaches and the more delicate fruits could be brought over here perfect; but I have been convinced now that with all the new apparatus for keeping them cool, the small boxes in which they are packed, and the speed with which they come, it is practicable. California is now but a green-fruit orchard for Great Britain.

"If I had not known the extraordinary low prices at which these beautiful fruits can be grown in California, I could not have believed that they could compete with European productions. I am told that the shipments have been made at no loss, and if so, there is certainly a door open here for another of your productions. The only danger now is a monopoly among fruit merchants which will enable them to buy the fruit for next to nothing in California and sell it on this side at an enormous profit."

We do not anticipate any trouble in the line mentioned. If English merchants desire to come here as buyers and take their own risks of transportation, we can sell them fruit cheap enough. California can produce almost an unlimited amount of fruit at prices which all will concede to be cheap, and then make plenty of money at it. Then if these British buyers attempt to control their own market at home and to exact high prices, they will cut their own throats, because people will not buy the fruit. There is plenty of room for all available skill and capital in growing and trading in California fruits on fair business principles, but if one gets too ambitious or avaricious, the whole thing will drop on him and crush him out. Let the British dealers come in. We have no objection to British gold as an industrial commodity. It is only the politicians who affect great abhorrence of the metal.

The Raisin Producers.

No doubt the raisin-producers anticipated no little trouble in carrying out the reforms in trade which they advocate, and they are having it. The latest trouble is the operation of two packing houses who agreed to the schedule of prices to be asked for the different brands and then straightway began selling two-crown raisins under a three-crown brand and at the two-crown price, thus creating the impression that they were selling a better raisin at a lower price than other packers. The Raisin-Producers' Association of course repudiate such a transaction, and gives the offending parties two weeks to answer the indictment. The raisin-growers of Riverside and vicinity on Monday organized a raisin-growers' protective union, whereby the growers expect to realize better prices for this year's crop of raisins. Last year, most of the growers consigned their raisins and lost on them. The combine effected to-day is similar to the one at Fresno, and all the raisin-growers think it will be highly successful in controlling the raisin market.

It is, of course, too much to expect that a cooperative movement dealing with new conditions and materials, and encountering the force of opposing interests, should accomplish everything desirable in the first year of its existence. The movement has already achieved far more than its enemies supposed possible, and that it has a future cannot be doubted when the proceedings contain such items as this:

Mr. Bateman of Hanford said that he felt that all the raisin-growers in the State were deeply indebted to the executive committee for the pluck and ability they had displayed in rescuing the raisin crop of this year from the disastrous results of last, and he thought the work had only just commenced, and that it was a work for the future of this industry and ought to supported liberally by every grower in the State; he had already paid his assessment and given his donation, but he would be happy to contribute a further sum of $50. He handed the treasurer his check for that amount.

Those engaged in some other lines of production and who see the need of doing something for themselves, should learn a lesson in determination and in liberality from the raisin-men.

Cattle Looking for Feed.—It is telegraphed from Phœnix, Arizona, that cattlemen from northern and eastern Arizona have been scouring that region for pasture for their famishing cattle. All water is gone and feed is short from the outside, while the pastures about Phœnix are almost full. There are 75,000 cattle already in Salt River valley, and they are selling at 1¾ cents, with few buyers. If it does not rain soon the range will be depopulated.

Fruit Still Going Abroad.—The ninth special fruit train for London, loaded with peaches, pears and grapes from Florin, Sacramento county, and Rocklin, Placer county, left Sacramento last week. California fruit is daily growing in popularity in England, and the California Fruit Transportation Company is now receiving letters from Berlin and other cities asking for it.

A Promising Outlook for Vegetables.

Latest crop advices from the States east of the Rocky mountains give assurance of a liberal demand later on for California potatoes, onions, beans and cabbage. In the large potato-growing central States the potato crop was damaged in last month by heavy rains, which reduced very considerably the July promise of a crop in the United States aggregating about 200,000,000 bushels. According to the United States Agricultural Department report on September 10th, the crop of all the States will not go above 175,000,000 bushels, against a yield of 235,000,000 bushels in 1891, 125,000,000 bushels in 1890, and 190,000,000 in 1889. It will be remembered that the light yield at the East in 1889 caused a fair demand for California early potatoes in 1890, and that the very small crop in 1890 created an exceptionally heavy call on us in the first half of 1891. With a light crop this year in the central States, and the total yield of the entire country at not exceeding 175,000,000 bushels, and possibly as low as 150,000,000 bushels, it is quite certain that this coast will be called on for liberal supplies before the first half of 1893 passes, but whether we can meet the call is, as yet, an open question. In this State the acreage planted was seven per cent less than was that put in in 1891; in Oregon it was six per cent less, while in Washington there was no falling off. In this State and also in Oregon the yield to the acre averages less, while the quality is considerably poorer. There are more diseased, wormy and otherwise poor potatoes in California this year than there have been for all of three years past.

According to *Farm and Home* the onion crop of the United States this year shows a falling off of fully 20 per cent in comparison with the yield in 1891. The yield in 1892 is placed at 2,485,380 bushels against 3,189,700 in 1891. In the States east of the Rocky mountains, farmers are pursuing the same course as those in this State, viz., marketing poor keepers at the best prices obtainable. This free selling will undoubtedly cause a scarcity later on which will create much better prices. Already quite a demand has set in for California onions for shipping to Colorado points, and as the season advances the demand will enlarge.

Beans are a staple article of food and therefore the market value responds quickly to any improved demand. In this State the acreage planted to beans was largely reduced particularly that devoted to Limas. There was a reduced acreage in Indiana, Illinois, Nebraska and Kansas, but the condition is generally good. In Ohio, Michigan, Pennsylvania and New Jersey, the acreage and condition are about the same as they were in 1891. In New York the acreage devoted to medium and pea beans was largely reduced while the crop has been troubled to some extent by rust. In New England, except in Vermont, the condition, is good. The French crop is said to be short and therefore, the imports from that country will probably be light. The carryover of the 1891 crop in the United States is said to be very light owing to our exporting to July 1st nearly 400,000 bushels and the imports not going over 874,000 bushels against 1,651,000 bushels imported during the season of 1890-91. Taking an impartial view of the general situation and it looks very much as if better prices will obtain after the first rush to sell has passed. The Lima crop in this State is about all contracted at from $2.75 to $3 per cental. These heavy sales virtually take the Lima beans out of the market and leave competitive buying with the other varieties.

The large crop of cabbage east of the Rocky mountains in 1891 reduced very largely the call for California cabbage and caused lower ranges of values to obtain. The acreage devoted to cabbage in this year shows a falling off on this coast, particularly in this State. At the East, New York reports a decreased acreage, but the condition is good. In the New England States, except Maine, the acreage shows a falling off of ten per cent, with condition generally poor. In Maine there is a full acreage, but a poor condition. In the central States the acreage is slightly less, with the condition below an average. Similar reports come to hand from the southern States. The large crop in 1891 gave an oversupply, which caused low prices to rule and frequently netted a loss to shippers. The growing of cabbage in California has become quite an industry, particularly in the southern part of the State where the Santa Fe railroad has arranged to facilitate the marketing of them and also of early spring vegetables in the distribution markets in the southern and central States.

Things We Would Like to Know.

Who has tried the soja bean as a fodder plant, and with what result?

The same as to prickly comfrey and teosinte.

Who will write us a letter about mustard as a crop? How is it grown and what is the ordinary yield per acre?

From an Independent Standpoint.

Profound alarm spread over the country on Thursday of last week when it was reported that five cases of cholera had been discovered in New York City, and public apprehension was scarcely relieved by an official statement from the Health Department that four of the "suspects" were suffering from other causes and that there was really but one genuine cholera case. The victim, a young working woman named Mary Connerty, was given over to the care of the health office physicians, who published hourly reports of her symptoms. The tenement house in which she had lodged was guarded by the police and its occupants herded together to prevent the spread of infection; the clothing, bedding and furniture in the room recently occupied by Miss Connerty were destroyed and the whole neighborhood elaborately disinfected. After two days of waiting for the case to develop, and after continued study of the patient's symptoms, it dawned upon the medical gentlemen that they had made a mistake, and—well, at last accounts they were speculating as to whether it would be a boy or a girl. The city broke into a hearty laugh when the truth was made known, and though half a dozen cases of cholera have since been reported, it has been impossible to create another scare. The later reports, like those which came earlier, when run to the ground, have proven erroneous. Up to this time no case has developed on American soil outside of the New York quarantine station. If the course of the Health Department has seemed in some respects severe, its justification is found in the fact that thus far the plague has been held at bay. All the infected ships are still detained in the lower harbor, while the passengers have been landed on the islands or on Sandy Hook. Only a few cases have developed during the past week. Monday about 1000 persons were permitted to land in the city after a thorough fumigation. All the immigrants are still under detention, and they will be held until the last possibility of infection has been disposed of.

Official returns do not confirm the newspaper reports that the plague is subsiding on the other side of the Atlantic. At Hamburg the cholera figures for Monday of this week were: New cases 621, deaths 187, burials 292, patients in hospital 2939. Up to date there have been reported in all 15,664 cases and 6764 deaths. A few new cases are reported each day from Antwerp, Havre, Paris, and half a dozen other continental cities. In England there have been no original cases—that is, none in which the victims were not foreigners who had contracted the disease on the continent. In Russia the weather is cooler, and the plague therefore is less fatal. The deaths during the past week have averaged about 1200 daily. Hamburg is the only city of Western Europe where the cholera has become epidemic, and it is suffering frightfully, not only from disease but from its effects upon commerce and general business. Everything is at a standstill and hundreds of firms are upon the eve of failure. Many thousand commercial clerks have been discharged, and there is absolutely no employment for laborers. The city will unquestionably have to look to the outside world for relief. The people are helpless, and unless assistance comes from abroad, famine will devour what the plague has spared.

The cholera has at least accomplished one good thing, namely, it has opened the eyes of the American people to the perils of unrestricted immigration. The loads of human refuse which fill the cholera ships are fair samples of the material which is being dumped, week by week, upon our shores. It would be impossible to exaggerate the miserable condition of these poor people. They are the worst offspring of iniquitous systems of government, poverty stricken, diseased, and in many instances criminal—wretched alike in mind, body and estate. To make of such distempered beings clean, wholesome and self-reliant American citizens is a thing impossible. Their presence here is not only a public burden, but it is a positive danger to a government which rests upon the intelligence of the people. This danger is not new. It has long been noted, but the cholera scare has, for the first time, opened up the immigrant ships to general inspection. If it does not result in such modification of the immigrant laws as will protect us from future invasion, we shall deserve all the ills which must follow persistent infusions of tainted blood into our body politic.

The "American policy of protection" falls short just at the most critical and vital point. We protect ten thousand material things, but we do not protect the things which most of all need protection—the American workmen and the American Government. Surely, the workman is not protected when every day five ships arrive at New York loaded with hundreds who are ready to compete in the labor market for pauper's wages. Surely, our system of government is not protected when we admit not alone to residence, but to actual citizenship, those who can have no conception of American political ideals, no knowledge of American history, and no share in the American spirit; but whose ideas and principles, on the contrary, are based upon the prejudices of alien birth and alien breeding. The false notions which prompted the recent labor riots were not acquired in the American public school nor in the free course of American life. They are the bad products of bad systems of government, and they came to America in the immigrant ship. Before our industrial communities were dominated by foreign elements, there was free intercourse between employer and workman, frank avowal and discussion of differences and friendly adjustment. It is the foreigner who has substituted mutual dislike for the old fellowship, who has separated employer and employed into distinct and antagonistic classes. Clearly, we have carried the motto of "America—An asylum for all mankind," too far. We have failed to discriminate between the enterprising, provident and self-sustaining immigrant, who comes to America to escape from tyrannical systems, and the shiftless, ignorant and morally diseased being thrust out of his own country, who brings with him the ideas and standards of his early home. For the former, there is and will always be room and welcome in America; against the latter the doors should be locked and barred.

NEW YORK, September 19.—A Wall-street journal says: The talk in the Northern Pacific crowd is that the company has been unable to sell bonds and is threatened with a loss of earnings on account of reductions in rates by the Great Northern competition and the breaking up of the Transcontinental Association. This is assumed to mean a receiver for the company and a readjustment of its obligations. Insiders make a point that the company, which earned last year nearly $1,000,000 in excess of its fixed charges, does not seem in great danger of a receiver. A block of $200,000 Northern Pacific consols was thrown on the market last week, presumably for account of a large insurance company which took alarm at the cholera scare.

The above paragraph, which we copy from the telegraphic reports of the day, closely confirms our prophesy of last week. Nothing is more certain than that the Great Northern or Hill road has it in its power to force the Northern Pacific to the wall. It is, or will be within a few weeks, as complete and efficient as the N. P., and will compete with it for both local and through traffic. It can afford to do the business for half the rates necessary for the Northern Pacific, because it represents only about half the investment of capital. With such a rival, and with genuine open competition, the Northern Pacific cannot maintain itself. And it ought not to be able to maintain itself, because a large part, at least one-half of its enormous capitalization, is bogus. It represents not honest investment, but folly, extravagance and fraud. What is true of the Northern Pacific is true of every other transcontinental road. Each of them represents in its capitalization from twenty-five to one hundred per cent more than the present actual value of its property as measured by what it would cost to reproduce it. Not one of these roads can stand the competition of a road honestly constructed and honestly operated. The immediate hope of the Pacific coast is that the Great Northern road will hold to Mr. Hill's pledges. It will be the beginning of a better era, for it will be the first movement in the process of squeezing the water—in other words, eliminating the fraudulent capitalization—out of the great railroad companies.

This squeezing process is not new. Most of the railroads in New York and New England went through it 20 years ago and the chief agent in the good work was the late Samuel J. Tilden, who came so near being president of the United States. Before the reform began the New York and New England roads were earning dividends on large issues of watered stock. By some chance the secret was let out, just as Mr. Hill is letting out the secret as it applies to the transcontinental roads. Enterprise supplied honest competition and the over-capitalized roads followed each other to the bankruptcy court. Of course, great numbers of innocent investors in the watered stocks suffered and suffered severely, but the public was relieved of an incubus. The public cannot be expected to submit to abuses simply because innocent people have foolishly bought bogus securities. For his part in the New York railroad reform, Mr. Tilden was dubbed the "Railroad Wrecker"—a title applied in reproach, but in fact a badge of honor. He wrecked not the railroads, but their fraudulent capitalization, through which they were leeching and fleecing the country. A "wrecker" who would repeat this good service for the transcontinental roads would do the Pacific States the highest possible service.

MORE LARGE PRUNE YIELDS.—It is telegraphed from Visalia that the product of three prune trees of the Briggs orchard was picked and weighed Sept. 19th in the presence of a large number of people. The largest yield of fruit from one tree was 1017 pounds. The average of the three trees was 940 pounds.

Live Stock at the State Fair.

[From our own Correspondent.]

The Thirty-Ninth Annual Show of the California State Fair, held during the last two weeks at Sacramento, might fairly be considered an average one, taken all around, in regard to live stock.

Draft horses, sheep and pigs were there in greater force than usual, but the cattle classes were not so well filled as last year, neither were they of as good average quality as on many previous occasions.

Among draft horses there is more distinct classification of breeds than in former years, when the Normans and Percherons were shown in separate classes, and the Suffolk-Punch, Shire and Clydesdale breeds all in one class; this year, however, the order is reversed and the three last named breeds have separate classes, while the two former are more sensibly merged into one, for, as noted in our report last year there is now very little difference between the two breeds. Whatever they may have been in former times they are now practically one of the same breed of horses.

AN OBJECTIONABLE RULE.

A new rule that went into effect this year is this:—

Any animal that has heretofore received first premium for best three years old and over is barred from competing for that award.

What benefit is this likely to be to either the society or to visitors even?

We, like many others whose opinion we heard expressed upon the matter, fail to see any good in it.

It will have a tendency to keep away some of the best animals that would be exhibited in the aged classes, and thus detract from the merits of that part of the show. We heard the matter discussed by some stockmen, not exhibitors, who altogether agreed that the man who had the best animal should be allowed to show him until some one else could show a better one. To receive the blue ribbon, however, is not always proof positive that a man has the best animal.

In regard to this rule there was considerable dissatisfaction expressed at the Shire stallion, Midge, being barred because of his being winner in a mixed class last year. It was not expected that the rule would apply in such a case as that.

THE HORSES.

Of horses there was a larger show than we remember to have seen before.

The stalls on the grounds were all filled, and many horses had to be stabled outside.

DRAFT HORSES.—There were only three stallions and three mares of the Suffolk Punch breed on exhibition. The latter had come from Nevada, and consisted of an imported mare, a two year old and a yearling filly, the produce of the imported English mare, and taken altogether they were worthy representatives of the breed, a strong, sound, clean-legged lot,.

The three stallions were the ones exhibited at the Petaluma fair by Theo. Skillman, who also had both Shire and Percheron stallions and one Norman mare. Amongst exhibitors of the last named breed, were Mr. P. J. Merkeley of Sacramento, with four fine large mares and Mr. A W. Foster of San Rafael, who had four good grey mares from his farm near Hopland, Mendocino County; these, we believe, were bred by Captain Collier of Lake County, and had some of their produce exhibited along with them.

Among other exhibitors of the largest numbers were Mr. J. H. Glide of Sacramento, Mr. McNear of San Francisco, with Clydesdales. Mr. A. M. Linnett had Shires, Clydes and Percherons, and Mr. W. H. Haskell of Los Angeles county had a good show of Clydesdales and Shires, including the above named stallion, imported Midge.

The two largest, heaviest and most powerful mares on the ground were two Clydesdales, of about 2000 pounds each, bred by the late James Roberts and exhibited by Mr. Henry Pierce of San Francisco.

Messrs. Holbert and Conger of Los Angeles exhibited one excellent imported Shire stallion, one Cleveland bay, and three German coachers, which were very much admired. Amongst the latter was one of the most symmetrical and best proportioned horses it has ever fallen to our lot to see anywhere, of any breed of coach or carriage horses.

A few well-matched teams of carriage horses were seen on parade, also a large display of roadsters, which our limited time at the fair did not allow of getting particulars thereof.

The list of awards, upon another page, will give the respective winners in each class.

SUGGESTIONS FOR IMPROVEMENTS.

There were many other good animals than those I have noted, but it is next to impossible to find out all particulars, there being no classification of the different breeds as they stand in their stalls, and no means of knowing the horses either when out on parade or before the judges, except by a course of questioning, which becomes tiresome, and sometimes unpleasant, when plied sufficiently to get the desired information.

All of this might be avoided by the entries being closed a week or two before the fair, as we have before suggested, and printing a catalogue of everything on exhibition, with corresponding names and numbers; also, stall numbers of all live stock.

Who would not be willing to pay a reasonable price for such a guide? It would afford an easy means to visitors in finding what they want to see most particularly, at their leisure and in their own way.

If some better system of selecting judges of live stock were adopted, the work of awarding premiums would not have to be continued so late in the second week of the fair.

A good deal of the work had to be done on Thursday and Friday, and some on Saturday. It was not till after 1 o'clock on that day that the last ribbon was handed out. Such a course is wearisome and trying in the extreme to both exhibitors and onlookers, and gives little chance for visitors to compare notes on the premium animals.

There is also some carelessness among exhibitors that sometimes causes delay—by their not being on hand with their stock when wanted in the ring—of which we noted one instance in particular. In the class for stallion and five of his colts, other than thoroughbred, neither the man in charge nor the owner of one lot could be found to bring them before the judges when wanted, although it is distinctly stated in the premium list that the class would be judged on Thursday. That same lot of six head would have been an easy winner of the $100 premium, as we afterward had the opportunity of taking a good look at them. They received the blue ribbon as being the most meritorious display of horses by one exhibitor.

This is an extreme case, no doubt, but it is well for exhibitors to bear in mind that they have duties to perform, as well as directors and other officials in charge of the management.

Punctuality in all parties concerned is a wonderful lubricator in a machine like a State Fair, in which every branch of agriculture is represented.

Experiments with Resistant Vines.

SAN FRANCISCO, Sept. 16, 1892.

TO THE EDITOR:—Herewith find recommendations of Chief Executive Officer Wetmore to the Executive Committee of the Board of State Viticultural Commissioners, which have been adopted by the committee. The experimental work will begin at once.—WINFIELD SCOTT, Secretary.

MR. WETMORE'S PLAN.

To the Executive Committee of the State Viticultural Commission: At the last meeting of your committee you requested me to draw up a plan for carrying out your idea of establishing experimental plots in different sections of the State, for the purpose of testing the resistant properties of the different American varieties, and also for determining the best varieties of European vines to graft upon them.

It is a well known fact that a certain American variety will resist completely the attacks of the phylloxera in one place, while planted in another where the soil and climate are different it will be only partially resistant. In order, therefore, that the vinegrowers of the State may be able to determine which is the best variety of the resistant vines to plant in his locality, I would advise the adoption of the following plan for establishing experimental plots in those counties where the phylloxera is known to exist:

1st. That there should be a plot established in the following counties: Napa, Sonoma, Santa Clara and San Joaquin.

2d. That each plot shall contain two acres.

3d. That in each plot there should be planted all principal varieties of resistant vines.

4th. That each plot shall be located in a vineyard where the phylloxera is known to exist.

5th. That the selection of the plot shall be left to the commissioners who represent the districts in which they are situated.

6th. That the cost of planting and taking care of these plots shall be borne by the commission.

7th. That these plots shall be under the supervision of the Chief Executive Officer, who shall have power to purchase the necessary vines and give instructions how they shall be planted and taken care of. He shall receive his instructions from time to time from the Executive Committee and he shall be required to make a report to them for publication at least twice a year. This report should show the number of varieties planted and the relative condition of each variety in each plot. The Chief Executive Officer should be required to visit each plot at least once a month from April to September, and as often as necessary during the remaining months.

8th. That these plots shall be open to the inspection of all persons at all times. CLARENCE J. WETMORE,
Chief Executive Officer.

World's Fair Notes.

Exhibitors at the District Fair that embraces Sutter county have decided, almost without exception, to turn into the World's Fair fund all cash premiums received from exhibits at the fair. Over $1500 in premiums was distributed in that county last month. Besides this, the exhibitors generously placed at the disposal of World's Fair managers the best of all their products in fruit, grain, etc.

At the last meeting of the Butte County World's Fair Association, arrangements were made for preparing a large number of boxes for holding dried fruit. The contract was let for the securing and polishing of specimens of every kind of wood grown in the county.

At the last meeting of the Board of Supervisors of San Luis Obispo county, the board decided to add to the tax levy for the present year a sufficient per cent to raise $2500 to aid in defraying the expenses of a county World's Fair exhibit.

Work on a number of the great Exposition buildings at Chicago is now progressing night and day. More than 10,000 men are at work daily in preparing the buildings and grounds, to have them as attractive as possible by the date of the dedication ceremonies, October 21st.

H. M. LaRue, Chief of the Bureau of Viticulture, writes from Chicago under date of September 9th, that he arrived from Sacramento on the 5th inst., and immediately assumed the duties of his new position. He urges interior counties in this state to make exhibits of raisins and table grapes in the Horticultural building as well as the California building.

In Orange county, the supervisors have provided for the compensation of two competent women to make a tour of the county in an endeavor to further exhibits prepared primarily by women.

Weather and Crops.

William Burrows, Acting Director of the State Weather Bureau, furnishes the following summary of the crop reports received the last week from voluntary observers throughout the State:

The temperatures have been very appreciably below the normal over the entire State. There have been some light rains in the northern counties. At Red Bluff the fall amounted to more than a quarter of an inch on the 18th, and did slight damage to the fruit. The nights have generally been cold, with heavy dews, while on and near the coast the mornings have been foggy or cloudy, followed by bright, sunshiny days.

In the northern portion of the State and in the Fresno raisin district the low temperatures have retarded fruit-drying and raisin-making somewhat, but in the southern portion of the State the weather seems to have been especially favorable to all branches of the fruit industry.

According to reports from nearly all sections the late grape and fruit crops are exceeding the most hopeful expectations, being excellent in all respects, and prices seem to be equally satisfactory. At Sacramento and vicinity the weather has been generally cloudless, with the temperature averaging 4° below the normal.

WEATHER AND RAISINS AT FRESNO.

FRESNO, Sept. 19, 1892.

TO THE EDITOR:—The week has been cloudless, with the temperature three and one half degrees below the normal, with cold nights and heavy dews, which is causing much delay in curing the raisin. About all of the first crop is now on the trays, but not yet ready to turn. Two weeks more without rain should get the first crop out of the way in good shape. The first crop of Zinfandels is now in the sweat-boxes. Highest temperature, 96°; lowest, 53°.

J. R. WILLIAMS,
Observer U. S. Weather Bureau.

GEOLOGICAL MAP.—The United States gelogical survey has been for ten years engaged in making a great map of the United States, parts of which will be on exhibition at the World's Fair. The piece, six feet in length and four feet in width, now ready, includes the State of Connecticut and a bit of Long Island and eastern New York. This vast map will take at least twenty-five more years to complete. Its detail is such that upon it will be indicated every stream, brook, hillock, mountain, valley, farm, village and city. It will show every public and private road as completely as a surveyor's map of a small township. This map when completed, would, if spread out, cover a little over three-quarters of an acre in superficial area. Of course it would be impossible to suspend such a map as to make it available for practical use, and therefore it will have to be published in sections. In addition to this piece of the map of the United States the geological survey is preparing an outline map of the country, which will also be exhibited at the Fair. It is to be spherical in shape. By it at a glance the different elevations, the tablelands, the mountain ridges and the valleys will be indicated in the outline, the highest peaks of the mountains being proportionately elevated as much above the sea level as are the peaks of the Rocky mountains above the Atlantic and Pacific coast lines.

THE Northeastern California R. R. Co. recently incorporated intends to build and operate a standard gauge railroad to run from Castle Crag, on the line of the California and Oregon Railroad in Shasta county, and running thence in a northeasterly direction in and through Shasta county to a point at or near the southwest corner of section 28, township 40 north, range 1 east, Mount Diablo base and meridian, in the county of Siskiyou. The estimated length of the road is thirty miles. The Company also proposes to construct and operate a telegraph and telephone line along the railroad. The Directors are E. A. Lancaster of Chicago, D. E Miles and L. D. Brewster of Wisconsin, Henry L. Tatum and J. J. Bowen of the well known firm of Tatum & Bowen of San Francisco, and S. P. Smiley and A. M. Willis of the sime place. The capital stock is $150,000, which has been subscribed. The Directors are members of the Red Cross Company which owns extensive timber interests in northeastern Shasta and southeastern Siskiyou and the route will be the one from Lower Soda Springs or Castle Crag which has already been started for Bartle on the McCloud, the center of the Company's vast lumber interests, where they have built a big sawmill.

THE Fish Commissioners have made some important distributions of young fish throughout the State during the past two or three months. Over 3 000,000 young salmon have been hatched and distributed from the principal State hatchery at Sisson, near Mount Shasta, into the head waters of the Sacramento, Pit and McCloud rivers. This has been done for about one-half of the expense heretofore incurred by the commission in like work. The reduction in expenses has been accomplished by abolishing the office of State Superintendent, and the commissioners have taken the duties of that officer on themselves. The hatchery established at Bear Valley, Marin County, has proved a great success. Between 700,000 and 1,000,000 New Hampshire trout have been hatched at that point, and distributed into the principal streams of Marin, Sonoma, San Mateo, Santa Cruz, Monterey and San Benito counties.

POMONA FEAST COMMITTEE.—At a recent meeting of San Jose Grange, the program for the State Grange meeting was discussed, and the following members appointed as a committee on behalf of San Jose Grange for "Pomona Feast," which will be held in Turn Verein hall: Mrs. S. A. Bickwell, chairman; first, second and third assistants, Mrs. George Tarleton, William Beauchamp and Miss Hattie Pettit; general assistants, Mesdames Georgia McBride, Lillick, Lee, J. Snow, W. A. Parkhurst, W. H. Wemple and R. P. McGlincey; Misses Jennie Sanders, Miss Webb, Lulu Tenney, Phelps, Ella Sanders; Messrs. H. Pomeroy, Glendenning, J. C. Kingsbury, George Tarleton, Webb, Lee, Gilmore, Powell and Blake.

MISCELLANEOUS.

A CHICAGO syndicate is investigating the country about Shasta with the intention of establishing a paper manufactory to be run by water power.

IT is estimated that the deciduous fruit of Southern California for this year will reach 10,000 carloads, valued at $3,000,000, and that the citrus fruit will reach 6000 carloads, valued at $3,500,000.

A PLAN is being arranged at Santa Rosa to build a boulevard between that place and Petaluma. If the new road is opened, the long-talked of electric road between the two places will undoubtedly be constructed.

THE people of the State of California have the sum of $198,646,411.08 in the several banks of the State. The savings banks hold $127,312,088 41, the commercial banks $53,247,262.73, and the national banks $16,669 177.83.

J. H. HENRY and associates, the owners of the electric railway from San Jose to Santa Clara, have petitioned the Council for a 25 year's franchise to furnish electric power for mechanical purposes throughout the city of San Jose.

WORK at Oneta's marble quarry, Amador county, is progressing. They are making preparations and excavating a foundation for a derrick and mill. The company propose to ship the marble in a finished state and small blocks.

THE San Felipe Havana Tobacco Co. has been organized at Gilroy, Santa Clara county, to manufacture the product of Culp's San Felipe plantation; capital, $100,000. P. C. Hodges is president, and George T. Dunlap secretary. Work will commence at once.

IN the township round about Mission San Jose, Niles and Alvarado, there are four great industries—fruit-growing, wine-making, a beet-sugar factory and extensive salt works. The section also sends about $100,000 worth of early vegetables each year to the city markets.

AMONG the most important of the newly inaugurated industries of Humboldt County is the fish hatcheries at Gaston and Redwood. Though still in their infancy the success of the enterprise is assured, and the temperature and surroundings have proven all that is required for the complete propagation of fish.

A TUNNEL 1140 feet long on the Fort Bragg logging railroad has just been completed. It connects Redding creek with Noyo river, where the Fort Bragg Redwood Company will carry on logging operations this season. The tunnel opens up a fine body of timber miles in extent where the ax has never been struck except for ties.

THE city of Alameda has ready for use a salt-water plant for street-watering. It is located next to the electric-light works, near the bay shore, and there will be two hydrants—one on Park street and the other on Park avenve. If the experiment proves a success the system will be extended throughout the city, thus effecting a large saving, as the city is now paying about $3000 per month for fresh water.

THE cannery at Whittier, Los Angeles county, has already canned and shipped 200,000 cans of apricots. It is now working on peaches, pears, apples and prunes, and the output is 10,000 cans daily and drying 20,000 pounds daily. This week the canning of tomatoes will be begun, and 350 tons of tomatoes have been engaged. Two hundred people are steadily engaged, and no Chinese are to be found on the premises.

THE Rodeo Cold Storage Company has secured a ten-years' lease with the option to purchase, of the four fifty-varas east side Sixth, south side King and north side Berry, from Mrs. Annie Donahue. The South San Francisco Cold Storage Company has purchased for $125,000 the two fifty-varas northwest corner sixth and Townsend, and leased the property on the northeast corner from Thomas Magee for ten years for $99,000.

THE fall run of salmon on the Sacramento river is the largest known in years. For the first time in three years the canneries have been opened to do business on the full run. The Benicia, Black Diamond and Chip's Island canneries are running to their full capacity, and will continue to do so for three weeks yet, though the salmon season closed on September 1st. The salmon are now spawning, mostly in the headwaters of the McCloud river.

THE *Astorian* announces that the Northern Pacific Railroad Company has acquired by purchase the surveys made for the railroad commonly known as the Goble road. These surveys are for an extension of the Northern Pacific from Goble to Astoria. An option was recently given on them by the parties interested here. The purpose of the Northern Pacific in acquiring these records is undoubtedly to extend its track from Goble to Astoria, a distance of about fifty-seven miles.

THE illustration of the great engineering work of the world will be one of the most interesting features of the Transportation exhibit at the World's Fair. Following the announcement that the large and very perfect model of the Forth bridge has been secured comes the application of the management of the Gothard Railway company, of Switzerland, for space in which to show a large model or relief map of that road. This will illustrate in the most graphic manner possible the famous St. Gothard tunnel, and the manner in which mountain inclines are surmounted by modern engineering science.

THE prospects of the San Francisco and Great Salt Lake Railroad are said to be very encouraging. New capital from an unexpected source has been subscribed, and by the time the full details are made public all will be in readiness to commence the work of construction. E. L. G. Steele, one of the principal promoters of the undertaking, is authority for the statement that there is no doubt whatever of the building of the road. Four surveying parties are in in the field between Suisun bay and Beckworth pass, and the work is being done very thoroughly. The road from Sacramento to Oroville is to be built first and put into operation at once.

HORTICULTURE.

Pruning the Pear.

Mr. P. G. Schluch of Elmira writes to the Winters *Express* on pruning the pear, and his views will be of interest to those who have this work before them this winter:

Is it possible to bring pear trees, especially Bartletts, to bear as they ought through pruning?

It is very common to see pear trees, particularly Bartletts, three, four and five years old without any, or but little, fruit, which is hanging on the ends of the growth of one year previous, a place where fruit ought not to be allowed on pear trees. What can be the cause of Bartletts not bearing until they are five and six years old, and some even older? One says it is natural for this pear; another says it is in the soil or climate, and still another says it is the fault of the nurserymen, who sell trees grafted or budded from trees which have never borne any fruit. And now one says, "I believe it lies in pruning," and sure enough he is right. During 20 years' experience, in nearly every climate where fruit can be raised, I have never seen pear trees more neglected in pruning than in this vicinity. Just in the first three to five years after planting, the most knowledge is needed to prune a pear tree to bear, besides bringing the trees into the most convenient shape without going too far with nature; and it is the greatest fault to let a pear tree grow at will until the fall of the first year after it is planted in the orchard, and then cut all branches down to a level, and all that is thought to be too much is taken out clear to the base, or only do the latter and let the remaining limbs grow at will. In so doing, no one can expect fruit the next and third years, except perhaps a few on the ends of limbs which are better fit for whips than part of a pear tree. By pruning a pear tree from the first year in the right way, it surely will bear the third year, and I can name the places where I have proven this, in our neighborhood, to any one desiring my advice how to prevent full-bearing pear trees, six to ten years old, from bearing their fruit on the ends of the branches, and so be liable to break down if not tied up at the right time. We have to break with handling the trees as it is done here, and see that we get most of our fruit inside the trees all over the branches. I can prove the possibility of having the trees that way when six to eight years old, pruned under my direction for one and two years. I will try and explain some points in pruning pear trees the first and second year after planting in the orchard. But first we will see what are the objects of pruning. The objects in pruning are to keep the tree well-balanced and equal in shape. These objects are accomplished by pruning strong-growing branches less than the weaker-growing ones. Through this operation the bud, just below the cut on the weaker growth, will grow out very strong, against a less strong growth on the less-pruned stronger branches, and the former will soon reach the same dimensions as the latter. This method taken as a foundation, the trees have to be pruned thus:

First year—The trees in general come from the nursery with one stem of about 2½ to 7 feet in length, sometimes branched at the height of from 2 to 4 feet, the latter being too high, it being preferable to have a pear tree with a short stem. The stem or main branch should be cut back to two feet, after the trees are planted, making the cut just above a bud which stands above the cut of the wild stock, so as to have the top bud grown perpendicular above them. Under common circumstances the trees, by the end of June, will have made a fair growth of about two or three feet, having besides the main branch more or less side branches, which I will name the main leading branches to be better understood. From the middle of June till the end of July the trees should be pruned—summer-pruned—as follows:

The stem or main branch is cut back to about 6 to 8 buds, making the cut above a bud standing exactly above the cut made the spring previous, so as to have the main branch growing as perpendicularly as possible. The leading branches are cut back four to six buds, making the cut above such buds as are pointing to the outside of the trees. An exception to this may be made only in the case of hanging limbs, when the cut will have to be made above a bud pointing sidewise. If all leading branches are hanging, the cut should be made above a bud pointing upward. Never allow two branches to grow that are coming out of the same bud. Always cut one clear out, keeping the one which has the best stand. All growth not used to form the tree should be cut off at the base.

The points above given may be looked upon as a base, for under certain circumstances there may have to be left one or two buds more, or contrary, on each main and leading branch.

FIRST YEAR—WINTER-PRUNING.

The trees, after having been pruned as aforesaid, will have made another nice growth by the fall of the first year. The main branch, besides having made another growth from the top bud, will have put forth some other sprouts which will form leading branches for the future. The leading branches will also be a good deal longer, besides having some side branches. Cut the main branch back to 6 to 8 buds, making the cut above a bud which stands right above the cut made by summer-pruning. Cut the leading branches back to 3 to 6 buds. All buds above where the cut has to be made must stand to the outside. From the side branches in existence, take out all that grow to the inside of the tree; those growing straight upward and those standing too close together should be cut clear to their base, without injuring the ring right at the base.

SECOND YEAR—SUMMER-PRUNING.

There will be lots of new growth by the middle of June, the trees having put forth sprouts from nearly every place where a cut has been made, and now we are at the very point to prune our tree so that it will bear next year. After the main and leading branches are cut back the same way as in the first year, using good judgment as to how many buds to leave, reckoning with the growth of the tree, all side branches which are closer together than four inches should be cut out, leaving the nearest bud to the base uninjured. The remaining side branches should be cut back to one-half or one-third of their length, making the cut always above a bud pointing to the outside of the tree. All other growth which has come from the places where sprouts have been cut out to the base, consisting often of two to five sprouts, should be cut out clear with the ring on their base, with the exception of one. If there are five sprouts, cut out first the three which grow straight out in one direction, not injuring the two remaining ones. The two remaining, growing in different directions and not crossing or standing too close to another limb, should be left if not longer than 3½ inches, if their top is thicker than the sprout itself. In case the top of these sprouts is not thicker than the sprout itself just below the top, they are no good and should be cut back to one inch, more or less, above a place where the base of a former leaf can be seen. Never allow suckers to grow around the stem, from near the ground, with the idea of preventing the stem from sunburning. Cut them down smooth as possible and prevent the stems from sunburning by painting them with a good coat of lime and sulphur.

WINTER-PRUNING.

By the fall of the second year the trees are, and will be, in such a condition as not to need much pruning. Follow up the points given above on main, leading and side branches. All growth inside of the tree, coming forth where not required, should be cut out clean. The growth coming out of the pieces cut back in the summer to more or less than one inch should be saved as much as possible, only cutting out the one which is in the way of another. Suckers, easily recognized by their erect growth, should be cut down so as not to injure the ring at their base. By following this method of pruning pear trees you will be satisfied in every respect. Never allow your three-year-old trees to have more than 4 to 8 pears. The next year let them bear as many as they can hold without breaking.

ENTOMOLOGICAL.

Condition of the Imported Australian Insects.

The following is the official report made last week to B. M. Lelong, Secretary State Board of Horticulture, by Alexander Craw, the State Quarantine Officer:

In accordance with letter of instructions of August 28, to proceed, together with Mr. Albert Koebele, to Los Angeles, San Gabriel, Orange and Santa Barbara, and make an inspection and report upon the condition of the beneficial insects that have been placed there, and which were sent over by Mr. Koebele from Australia during his recent mission to that country, having completed said examination, I beg to herewith submit the following report:

On August 31st Mr. Albert Koebele and myself visited the orange orchard of Albert F. Keicheval, at Los Angeles, where the first colonies of ladybirds from Australia were placed, and which arrived last winter and spring. Besides us, there were present John Scott, Horticultural Commissioner of Los Angeles county, Henry W. Kruckeberg, editor *Rural Californian*, Col. J. R. Dobbins, A. Scott Chapman, Esq., of San Gabriel, and others.

We made a very careful examination of this place and found *beetles, eggs, larvæ* and *pupæ* of the steel-blue ladybird, *Orcus chalybeus*. The first shipments of insects were received in very feeble condition, and having, as Mr. Koebele stated, hibernated in Australia and probably deposited their eggs before he captured them, the result of these first consignments was not very encouraging. However, later importations were received in good condition, and upon our visit we found sufficient of their eggs and pupæ to justify the assertion that this species has become established at Los Angeles.

Mr. Koebele says that this is the insect that keeps the red scale (*Aspediotus aurantii*) in check in the orange-groves in Australia, notwithstanding that a parasite preys on these ladybirds there which destroys fully 50 per cent of their first brood and about 90 per cent of the second brood. Great care was taken not to introduce this parasite, which is such a deadly enemy to them. When Mr. Koebele discovered that the young of these ladybirds were preyed upon by a parasite, he sent only mature beetles to California. Thus it may be safely said that it will only be a matter of time when we shall reasonably hope for the rapid increase of these valuable insects, and even better results from them than are obtained in Australia.

In another orchard at Los Angeles where a colony had been placed, we found but few beetles and larvæ, but enough to show that at this place also they had become established. The trees at this place were large and had been pruned high, so were somewhat difficult to examine.

On September 1st, Mr. John Scott, Mr. Hiram Hamilton, Horticultural Commissioners of Los Angeles and Orange counties, respectively, and myself examined the orchard where a colony of the steel-blue ladybirds you sent Mr. Hamilton had been placed. We found these doing well, and there were plenty of beetles and eggs from which small larvæ were hatching and were at work upon the red scale. These ladybirds had only been out on the trees 16 days, and as they are breeding there successfully, it is conclusive proof that the earlier importations had already deposited their eggs before they arrived.

On September 2d, Mr. John Scott, Col. J. R. Dobbins of San Gabriel, Mr. Koebele and myself inspected the Dobbins orchard at San Gabriel, where one of the first colonies of these insects was placed. Of these, we failed to find any trace, which was due to their bad condition upon arrival. The box containing the dead insects was produced, which established this fact. A later importation which you sent Mr. Chapman, 16 days before our visit, arrived in good condition, but we did not find any on the trees upon which they were placed. They no doubt will make their appearance in other portions of the orchard later on.

On September 3d, Mr. Koebele and myself visited Hon. Ellwood Cooper's orchard at Santa Barbara. It was at this place that several species were liberated in the open orchard immediately upon arrival. We found four species that have become well established, viz.: *Orcus chalybeus*, *Orcus Australasia*, *Rhizobius ventralis* and a small scymnodes. Of all these, we found beetles, eggs, larvæ and pupæ. The trees upon which they were placed are infested with black scale, and they are feeding upon it. Mr. Cooper placed these insects in an orchard where he considered the conditions as to temperature and protection from the prevailing winds, favorable for their colonization.

On September 9th, I visited the orchard at Haywards, Alameda county, where Mr. Koebele had himself placed several species. I found beetles of the *Orcus Australasia* and *Rhizobius ventralis* apparently doing well. At this place a muslin tent was placed over a lemon-tree where the *Thalpocares coccophagus*, an enemy to the black scale, is being bred.

I placed a small colony of *Orcus Australasia* and *Rhizobius ventralis* upon trees infested with pernicious scale in Alameda, and upon examination two days ago we found beetles, larvæ and pupæ. The young have fed upon the scale and passed through their molts into well-developed pupæ, proving conclusively that they will prey on this scale.

The new Australian ladybird, *Novius Koebelei*, of which only three live insects were received last April, and which were bred in the office, have multiplied very rapidly, and from these many thousands have been distributed. The successful colonization of this ladybird has fully sustained Mr. Koebele in the statement that they are even better than the *Vedalia cardinalis* for keeping the cottony cushion scale in check. The colony of 50 which you gave Mr. John Scott at Los Angeles have done well, and from those he has distributed several thousand, and is well pleased with their work.

From the foregoing it will be seen that five new species of beneficial insects have been successfully introduced and become established in the State, and while we cannot expect much benefit from them this year, as time is required for those introduced to breed, I am confident that next spring and summer they will be abundant, and colonies can then be furnished to growers throughout the State.

The unprecedented success of the Vedalia has caused fruitgrowers and others to expect immediate and similar results from all of the new insects, but as the Chalybeus and Australasia have only three generations the increase will be slower; but I feel satisfied that the final result will be equally as satisfactory as the Vedalia. For the present, orchardists having trees infested with red-scale should not neglect spraying or fumigating this fall, so that their fruit will be clean and merchantable and the trees saved for the present from the pernicious effects of the pest.

Mr. Koebele has reviewed this report and concurs in the same.

ALEXANDER CRAW,
Quarantine Officer.

THE FIELD.

The Hop Outlook.

The following earnest letter from James Hart, of Slaughter, is addressed "To the Hop-Growers of Kings County, Washington," and contains much pertinent advice:

You are now in the midst of picking, and for the next few days will be doing all possible to have the crop harvested and dried. Many will also have them baled immediately, as every grower should whose hops are properly cured. And here let me suggest that when baling try this plan: Get a piece of hop cloth and let it be folded double; let it be two inches longer and two inches wider than the inside of your press, and when you put your hops in, place the cloth on the top and press the hops down with the cloth on the top. It will prevent the breaking and "shelling" and will turn out your bale in a much better condition than the old way. Hops of good quality should be whole, or as nearly as possible, of good color, silky and springy. Such a description of hops this year will, so far as human intellect can discern, bring a very high price.

It is specially on this item that I address you. From the conversation I have had personally with many of you, no person seems to know what is the price of hops. All are agreed "they will be high," but none appear to know what price the market will pay. The first bale, or "pocket," of English hops, 1892 season, has been sold in London and realized about 65 cents a pound. The English crop now we know is only half a crop and will leave them about 145,000 of our bales short; the German crop will be short ten per cent; Oregon is 2000 bales short; New York is short 20,000 bales and this State will be not less than 10 000 short.

The entire crop of the United States last year was only 215,000, and out of these 70,000 bales were exported, leaving only about 145,000 bales here for United States consumption.

We are often told that England does not like United States hops. Farmers, this is directly opposite of the truth, and the increase of the exports prove it. For the year ending June 30, 1891, 48,534 bales of hops were shipped to England, and for the year ending June 30, 1892, 70,025 bales were exported, and this proves the lie so often used by those who desire to mislead you. Further than that, the hops imported to the United States for the year ending June 30, 1892, was almost 700,000 pounds less than in 1891. This proves further, to-wit, that they are also more extensively used here than formerly. During the past two months first class hops have been selling in London at 38 cents a pound, which shows that they ought to have been selling here at 33 cents.

The present 1892 crop in New York has just been har-

vested, and James F. Clark, of Cooperstown, the largest grower in New York (having 150 acres), has been offered 25 cents for half his crop, which he has refused, and sales have been made at 30 cents. These facts should enable our growers to place some fair market value now on their crop, and unless the growers rush into the market and glut the same, there is no apparent reason on earth, with the great scarcity of hops, why 40 cents a pound should not be the price within two months.

You have the game in your own hands! Stocks are exhausted; there is no reserve fund to draw on; hops cannot be made by machinery from fir stumps; the brewers must buy your crop; they cannot do without it. The hop extract that we heard of last year so often is by this time sold out, brewed and drunk, and some other "bugaboo" must be created to make you believe they don't want your hops; but insist upon your price or hold them, and if you would only consult one another often before selling and meet twice a week at some established place and make all sales known to your fellow-farmers, then it would place all of you in possession of actual facts that would amply repay you for all your time and labors. Learn a lesson out of the books of all corporations. When there is a scarcity of the article combine and keep up the prices. Manipulate your sales slowly, so that nobody else can get hold of your stocks and cut your own throats. Don't send scores of samples with prices away and make brewers believe you are all "starving for a sale," but if anybody wants your hops tell him your quantity and price. Leave the buyer to say if the quality suits him; if it does not the first time, raise it a cent every time a buyer comes along and you will soon cure them of waiting.

The State Department of Washington has already issued circulars requiring all growers, immediately the picking has been done, to burn up the old vines and thus rid the yards of all vermin that may be in them. This should be strictly attended to by every grower.

This season has proved beyond a doubt that by constant spraying and proper cultivation that good crops can be raised in this county. The districts of Green river and Muckleshoot prove it, and there being every prospect of good prices again next year, should be a strong incentive to every grower to start in early next spring to spray, and keep it up until the hops are well advanced.

To neglect this means a failure of crop and a failure to get big prices and large profits. Don't contract your hops next spring, except at large prices. It is always better to have your goods in the bale and for sale than any other way. Then the question of quality is easily settled, and there is no disputing and litigation.

The *New England Homestead* is trying to get authentic information as to this season's crop for publication, so that every farmer interested will know the state of the same, and if any grower may furnish me with the information desired, I will see that it is duly forwarded, and such information will be valuable to every grower.

In past years you have been misled for want of information, and I trust you will this season so unite in the matter that you will all obtain just and proper prices for your hard-earned crop.

THE STABLE.

Horses Suffer in Silence.

It is a pity that horses suffer mutely. If they could express their torments by yells as piercing and loud in proportion to their size as, for example, a wounded hare utters, we should soon be enlightened as to the amount of suffering in our streets. Some of the hansom cabs which ply there are admirably turned out and driven, but there are still many whose owners act on the principle of a minimum of corn and a maximum of whipcord. In one such I was traveling one day. The driver plied his whip vigorously about the tenderest parts of his horse's flanks, and awkwardly allowed the lash to strike me across the face.

The pain was acute, and I did not suffer in silence; yet, for one indirect blow that I received in that journey, the unfortunate quadruped received scores. He received punishment at the rate of 50 lashes a mile, which, if his average daily task is moderately computed at 12 miles, would give the hideous total of 600 lashes a day.

This incident took place in broad daylight; but cabman's night horses are indeed a pitiful class. Nearly all of those that are assembled nightly in Palace yard by the House of Commons are suffering from navicular disease, caused by fast work on hard pavements. You can see the unhappy animals standing first with one forefoot, and then the other, pointed forward to relieve the pain, which must resemble toothache on a large scale, for it is caused by the decay of a bone nearly two inches long in the center of the foot. Would society endure horses being worked in this condition if they could signify their pangs as plainly as a fine lady with neuralgia?

The barbarity of tight-bearing reins was forcibly exposed and condemned by a writer in June, 1875, and certainly the excessive use of them therealter became less common, but it is still too often to be seen. It would not be seen at all if people in general understood the peculiar form of torture produced by it. A pair of well groomed, 16-hands carriage horses, standing in the streets, are not subjects to attract commiseration from passers-by. The restless tossing of their heads may be taken for pride and spirit; but what heart-rending groans could alone express what these fine animals have to endure!

Along the top of the horse's neck runs a massive sinew, strong enough to support the leverage of the head; it is attached to several of the vertebræ nearest the shoulder; then it runs free over the crest and becomes attached again to the vertebræ nearest the poll. When the head is pulled into the position decreed by man's vanity, the vertebræ under the crest press hard into the sinew, and must cause intense suffering, sometimes setting up the inflamation known as poll evil.—Blackwood's Magazine.

The Intelligence of a Horse.

Can a horse reason, or does he act solely from instinct? Many believe that he has reason and intelligence; others attribute all his acts to instinct. As a help to elucidate this question, I wish to present the readers of *Science* the following statement of facts based on long and close observation:

I have a horse, now 19 years old, that I have owned 13 years. I have used him all this time, almost every day, harnessed to a buggy, in going back and forth to my office. He is very gentle, good-natured and kind, and has never shown any vices. Soon after I commenced using him I noticed that on Sundays, whenever I drove him down town, he strongly insisted, by pulling on the lines, on going to the church where I had been in the habit of attending. I watched this disposition constantly after that, and on every Sunday since, when driven out, he has continued to do the same thing, and, if left to his own will, invariably goes to the church and stops. I thought it possible that he was guided by the ringing of the church bells, and tested him by driving him down town at all hours of the day, before and after the ringing of the bells, but the result was the same. He invariably insisted on going to church on that day, no matter how often I drove him down town. My office is one block west and one north of the church, and a half-mile west of my residence. In going to church, I usually turn south one block east of the office, but I sometimes go around by the office, where I usually drive him every morning and afternoon. In going to my office, he never offers to go to the church except on Sunday, but on that day he invariably begins to turn south to the street leading to the church, from fifty to a hundred feet before reaching the crossing, and, if not checked, turns into the street and hurries to the church. He has kept this up for at least 12 years. He never does this on any other day than Sunday. In bad weather or good weather it is the same, although at the office much of the time he has had stable protection from bad weather. On week days he often insists on going to the stable in bad weather, but on Sunday, even when I compel him to go by the way of the stable, he pulls over to the opposite side of the street and hurries on to the church, if permitted, though he may have to stand out in the cold, rain or snow.

Sometimes, from one cause or another, he has not been taken away from home from one to four weeks, and I supposed he would lose the run of time, or at least show some hesitation and uncertainty; but not so. On the first Sunday after I drove him out, he insisted, as before, on going to church. He never offers to go there any other day of the week, though the church bells are rung and numerous services are held nearly every day.

If on Sunday I go to the postoffice, which is on the northwest corner of the street-crossing, where we usually turn south to the church, instead of going from there direct to the office as on other days, he turns to the south and goes to the church. He never willingly goes to the postoffice on Sunday, but always stops there on week days of his own accord, if permitted. Many times I have taken other streets on Sunday and approached the church from other directions, but in all cases, when left free, he invariably takes the first street leading to the church. I have experimented with him very largely in this respect, with a view to learning how he keeps the run of time, but am unable to satisfactorily account for it. I have also observed and experimented with him in a great many other ways, and have taught him to know the meaning of many words.

When alarmed at anything, he looks back to me with a frightened look, as much as to say: "Will it harm me." On my saying, "All right, go on," he moves on. If much frightened, he will repeatedly look back for assurance from me.

He knows the meaning of many words, such as office, postoffice, schoolhouse, mill, farm, cemetery, church, apple, corn, grass, water, and many others. The fact that he knows the meaning of these words, or at least attaches a meaning to them, I have tested many times in many ways, the relation of which would make this paper too long. When his corn is about used up, if I speak of it to him and say, "Deck, your corn is out; you must go to the mill," even before starting from home, he turns in at the mill as I go by, and goes up to the office door where I have been in the habit of ordering his food. Sometimes I have forgotten it by the time I come opposite the mill, and would have gone by, but he has not forgotten it and turns in. If I say to him, "Do you want an apple?" of which he is very fond, he puts on the most wistful look and does all in his power to say that he does; and if the apple is not produced at once, he begins to explore my pockets and clothing with his nose in search of an apple suspected to be concealed about my person. If I say to him, "Do you want grass?" he at once shows that he expects to be turned out upon pasture.

He also knows a number of people by name, and where they reside, and if told to stop at the residence of one of them, naming him, he will do so, without any guiding.

These are only a few of the many evidences of his intelligence. Hundreds of examples might be given showing his knowledge and intelligence, and that he gives very close attention to and understands what is said to him.

Do not these facts strongly indicate that the horse has more than mere instinct, that he reasons; that out of the storehouse of his knowledge and experience he forms conclusions, thoughts, purposes and plans. He understands certain symbols, such as words; he keeps the run of time, and knows uniformly when Sunday comes, for he has not made a mistake in this respect for more than 12 years past; he uses many and diverse means for making his wants known.

Instinct is supposed to imply inherited knowledge of objects and relations in respect to which it is exercised, and will usually, if not always, operate where there is no experience to guide. But this horse's knowledge, in these respects, has not been inherited, but is acquired. He never was at this church till he was six years old. His mother was probably never there. In instinct there is no necessary knowledge of means and ends implied, though such knowledge may be present, but instinct is always manifested in like manner by all individuals of the same species, under like circumstances, which is certainly not true in this case.

Hence I infer that this horse does reason; that he has a high degree of intelligence, even much more than he is able to make us understand and appreciate.

But does the fact of his observing Sunday imply a moral sense? Why does he seek to go to the church on that day? It has been said that animals do reasonable things without having the gift of reason; that they do things involving distant foresight without having any knowledge of the future; that they work for that which is to be without seeing or feeling anything beyond what is; that they enjoy but do not understand; that reason works upon and through them, but is not in them. The facts that I have related and observed make me greatly doubt many of these statements. I find it hard to sharply define the limits between instinct and reason. The facts that I have related indicate reason, intelligence, motives, and the formulation of plans, methods and schemes for carrying out preconceived purposes. Some of the acts, at least, indicate pure reason based upon former and remembered sensations, perceptions and knowledge, and the purpose to gratify merely mental desires.

What motive does this horse have for going to church every Sunday, even at a sacrifice sometimes? It is not for rest, it is not shelter, it is not feed, it is not company, it is not to gratify any merely physical want, for all these things he has elsewhere every day. Is it not purely an intellectual or moral want that he seeks to gratify? He stands near the church door, hears much of the exercises, especially the singing, and will remain, almost without motion, whether tied or not, till the services are over and I am ready to go home. But it cannot be for the mere speaking and singing that he hears there, for he often hears speaking, singing, concerts, the Salvation Army, and music of various kinds while he stands tied at the office on the public square; but none of these take the place of his church-going.

These facts I have given as tending to illustrate and explain animal intelligence. I have given only such as I have verified many times.—T. B. Redding in Science.

THE DAIRY.

Clover Silage.

The question of making clover silage without running the material through a feedcutter is an important one; for if it can be successfully kept without cutting, the expense will be considerably lessened.

With this question in mind, the clover from one acre, 8¾ tons by actual weight, was placed in the silo on the college farm (at Corvallis, Oregon), the 7th of June. It was cut when partly in blossom, consequently very green.

The weather was cloudy and there were several showers on the clover after it was cut. It was such weather as to make it impossible to cure the clover for hay.

The clover was hauled as soon as cut, with no reference to the amount of water on it. In some cases, the water ran out of the wagon when it came into the barn to be unloaded. The men had to wear rubber boots to keep their feet dry while handling the material.

The clover was tramped as firmly as possible about the sides and corners of the silo, but further than this no extra precautions were taken in placing the materials in the silo.

After putting in the desired amount, a covering of tarred building paper over the top, and over this two inch planks were placed, laying them close together and leaving an inch or two space at the sides, so that the planks would not bind when settling.

Having some broken rock near by, we thought we would take the precaution to weight the silage. With this end in view, a ton of rock was placed around the outer edge of the covering. The material began to settle very rapidly, and before the silo was opened, a month later, it had settled one-half.

When placed in the silo, the 8¾ tons occupied 1080 cubic feet, and when the silo was opened it only occupied 500 cubic feet.

It will be seen by this that it would economize space very greatly to cut the material with an ensilage cutter. When it had thoroughly settled, it did not occupy much more space than green corn fodder cut in short pieces with a feed-cutter and stored in this way.

This is a brief account of the filling process; now for the results.

The silo was opened July 9th, and feeding began at once. On the top of the silo, after removing the paper and planks, we found a layer of three or four inches which was quite moldy. There were about three wheelbarrow loads injured too badly to feed. Below this the silage was perfectly good, except now and then a moldy place near the sides or corners of the silo. The silage has been fed night and morning to milch cows and young cattle, with the best results. While our neighbors complain of their cows falling off in their flow of milk, we have no such complaint to make. Our cows have not lost a pound of flesh, and as for young animals, we can show some that have gained from 75 to 100 pounds during the month of July.

On the whole, we are very much pleased with the results from feeding clover silage, and think it is a very cheap and convenient means of furnishing succulent and nutritious food when other sources fail.—Prof. H. T. French in Rural Northwest.

STOCKTON is to have the largest macaroni factory on the coast. It is to be built by a San Francisco capitalist, and the intention is to supply the Pacific slope with the product.

AGRICULTURAL NOTES.

CALIFORNIA.

Butte.

MONEY IN FRUIT.—Oroville *Register*: James McPherson of Garden Ranch has three acres of Bartlett pear trees now eight years old. They were cut down when two years old by grasshoppers, so bear no more than trees six or seven years old, yet last season he picked 15 tons from the tract, and this season 11 tons from the same. The fruit averaged him two cents a pound delivered here for shipment to the Marysville cannery. This would return him this season $440 and last yea $600, or $1040 for the two years from three acres of land. This would amount to $340 an acre for the two seasons, or $170 an acre for each season. Last year his neighbor Jas. Stevenson obtained $65 from an acre and a quarter planted to pear trees, but this year he realized, by shipping to the cannery, $218, or about $175 an acre. The Bartlett and all other varieties of pears do well in the foothills, and, as will be seen above, they are profitable crops to produce.

A VAST NUMBER OF YOUNG ORANGE TREES.—*Register*: The number of young orange trees about Oroville and vicinity is greater than any one realizes. In the whole region of Oroville, Thermalito, Wyandotte and Palermo there are about 350,000 orange trees set in orchards, but this number is greatly excelled by the young orchard trees, those from one to four years old being raised in the nurseries. We picked up some figures this week that are startling in their magnitude, and they indicate that orange trees from this time forward will be so cheap that almost any one can afford to buy them. This will lead to the rapid extension of citrus culture in this vicinity, for when men can buy good, healthy four and five-year-old trees for a nominal sum, they will plant them in preference to almost any other fruit. The Citrus Association at Thermalito has 200,000 young trees. That means more than half as many as the total number planted in all the orchards of this vicinity. John D. Griswold and son have 15,000, H. Bird 1500, George and Fred Sparks 20,000, H. C. Bell 10,000, E. A. Kusel 25,000, Amos Howard 2500, C. D. Dunn 6000, Mrs. Z. M. Sexton 5000, S. C. Peasley 15,000, Albert Boynton 3000, Thos. Smuck 7000, Jas. C. Gray 1000, John Eicher 5000, Joe Gardella 2000, Wm. Smith 24,000, J. K. Mitchell 1500, John O Riordan 4400, L. Webster 1000, F. Taber 500, D. B. Hays 1200, H. C. Hills 800, L. B. Gardner 1200, Mrs. W. C. Topping 300, Mrs. J. Holmes 200, R. Delancie 600, Jas. McPherson 300, Mrs. S. Titus 250, John Watkins 2000, Geo. Hilton 6000, Dr. Parker 7000. This foots up 366,250 trees, yet we have obtained only a limited list of names.

Kern.

SORGHUM SYRUP.—Bakersfield *Echo*: We were recently shown a sample of sorghum molasses that is being made by Rev. Thompson and son out west of Rosedale. On the Frazine place a dozen or fifteen acres were planted to sorghum last spring, and the gentlemen named are now working it up. They will have between 2000 and 3000 gallons of molasses. We know nothing about the market value of this product, so very little of it is offered for sale here.

SOME MAMMOTH PEACHES.—*Echo*: Some days ago C. A. Maul brought in from his orchard a George's Cling peach that weighed 17 ounces. This was the largest of that variety ever shown, and of course it attracted attention. For several years a strong rivalry has existed between the growers of late peaches, and knowing that he had beat the record, Mr. Maul issued a challenge to the others to beat him if they could. Tuesday evening W. Lowell came into Mr. Drury's store carrying a peach, which he asked to have weighed. The request was granted, and to the amazement of all who were present, it tipped the beam at 22 ounces. It was of the George's Late variety, and hence holds the blue ribbon for that kind, though not against all comers. Two years ago Mr. Maul produced an Orange Cling that weighed 23 ounces. The Lowell peach was perfect in form and had a circumference of 13½ inches.

SEEDLESS RAISINS.—Bakersfield *Californian*: At the Pylema nursery, a hundred vines of the Lady de Thompson's seedless variety were reserved for the purpose of making raisins, at the time that the chief product of the vineyard was shipped to the eastern markets as table grapes. The fruit from these 100 vines is now being gathered, giving a yield of from two to three trays full to each vine. This is certainly a remarkably good product from a three-year-old vineyard.

Lassen.

THE HAY CROP.—Amedee *Geyser*: The hay crop in Lassen Co. turned out a great deal above what the farmer expected during the months of April and May. There was a great deal of new land seeded to hay of different kinds, which made the acreage a good deal more than other years. With the crop up to the average, and with acres of new hay which cut their first crop this season, the demand will far exceed the product, and prices will be good. Cattlemen and stockmen of all descriptions are commencing to buy up all hay that is for sale at this early stage of the season, and prices are looking up. This is the beauty of farming in Lassen and Modoc counties. Instead of the farmer hunting a market for his products, the market hunts him. It is not necessary for the farmer to go to the heavy expense of baling his hay, then hunt a market and handle it again, and go through one-half dozen other expenses to market it, and when all figured up at the end, he has put in a hard season's work and received hardly a living for it. In Lassen and Modoc counties it is different. You sell your hay in the stack, at a good price, the wholesale stock buyers drive their cattle to your place, feed the hay on your own ranch, and keep their cattle there until they are ready fo the San Francisco and other markets. You get cash for your hay in the stack, you receive good prices, and are not worried where you will find a market; but you can rest contented and know your market is at your door. As the acreage in hay increases, so the demand.

Mono.

MONO LAKE FRUIT.—Bridgeport *Chronicle-Union*: Ex-Supervisor A. F. Hector has been experimenting with fruit on his ranch at Mono lake, and so far has been quite successful. He has four large apple trees which this year bore more than the limbs could hold without being propped up, but the crop did not do him much good outside of satisfying him that such fruit can be raised on his place, as the Indians, or others, helped themselves to the fruit whenever he had to leave home. The Early Astrachan were prolific; but the Baldwins have not yet matured. He had a few of the Wealthy and Yellow Transparent, all of good size and flavor. He had some Russian apricots, Marion and Imperial plums and also French prunes—enough to satisfy him that they can be raised about the lake. The success of Mr. Hector's effort in this line should incite the Mono Lake farmers to set out orchards.

Orange.

A BEET SUGAR FACTORY.—Anaheim *Gazette*: At a meeting of stockholders in the cooperative sugar refinery, Mr. Dyer of Alvarado said that he had been in the beet-sugar industry for 22 years. He never had seen such good beet land as lays around Anaheim. He had been astonished at what he had seen. The farmers should have no lingering doubts about the success of the factory, as it could not possibly be anything but a great success. Rotation of crops would be a good thing for the beets, although it is not necessary to rotate oftener than every four or five years. He had raised 19 tons per acre on a stubble barley-field the first year beets were planted on it; the second year he raised 23 tons, the third 29 tons, and the fourth 25. The third crop, as a general rule, will be the best. Corn and potatoes are good crops to rotate with. An average yield of 15 tons to the acre is a good square average; often 20 tons per acre will be raised, and sometimes 30. Fifteen tons will produce 3000 pounds of white sugar, with beets at ten per cent of saccharine matter. At 1½ cents per pound profit, this will amount to $45 per acre; add $60 for the bounty (at two cents per pound), and we have $105 per acre for the crop. He referred to the cooperative refinery in Germany mentioned in these columns last week, in which the farmers had given their notes for the erection of the refinery, and the first crop of beets had paid all the expenses. The refinery did not cost the farmers a cent. The beets paid for it all.

Placer.

FRUIT SHIPMENTS.—Newcastle *News*: The following comparative statement will show the total amount of fruit shipped in pounds from Newcastle:

	Jan.	Feb.	March.	Apr.
1891	20,719	15,354	9,400	6,013
1892	7,611	7,168	9,321	29,203
	May.	June.	July.	Aug.
1891	237,819	986,247	1,745,491	3,221,970
1892	161,679	942,438	2,176,680	5,210,496

This shows a total shipment from this point thus far this season of 8,557,596 pounds, against 6,243,013 pounds up to the same date last season, or a gain of 2,314,583 pounds.

San Bernardino.

GRAPES FROM CUCAMONGA.—Ontario *Observer*: Mr. Milliken has received returns from each of the four carloads of grapes shipped to Chicago from North Cucamonga. They netted him over $50 per ton. The grapes shipped carried 22 per cent of sugar. They were grown without irrigation, to which fact is due their large per cent of sugar and excellent shipping qualities. Grapes of the same variety, Malaga, grown by irrigation in the same locality, carry only 18 per cent. The immense profit in producing table grapes for the eastern market is causing considerable demand for the cheap grape lands in the vicinity of Cucamonga.

Santa Clara.

WEST SIDE FRUITMEN DIGGING FOR WATER.—San Jose *Mercury*: The fruitgrowers on the West Side are becoming alive to the fact that a supply of water for irrigation can be had in their vicinity with but little exertion on their part. As yet no one has made a thorough attempt to get artesian water in sufficient quantities for irrigation, and the supply of surface water has not proven sufficient for extensive pumping. At present Perry Curtis, who resides on the Doyle road, is experimenting by digging a large pit 90 or 100 feet in depth, or as much deeper as is possible before the pit fills with water. From the bottom of the pit he will sink a well for artesian water, and it is expected that the pit will be filled, thus making a large reservoir from which to pump. It is also expected that from that depth the flow will be strong enough to supply him with all the water needed for irrigation. If the experiment proves a success, S. P. Sanders, who lives in the same vicinity, will make another well upon his ranch this fall. The fruitgrowers are anxiously waiting to see with what success the efforts of Mr. Perry will meet, and, if favorable, there will be many of these wells sunk.

FRUIT NOTES AROUND CAMPBELL.—Work at the cannery and also at the drier is about finished. The drier, however, will be obliged to resume on a small scale when the Salway peaches, which are too small for shipment, are brought in. The prunes and peaches and some of the best grades of apricots are yet unsold.

THE CODLIN MOTH.—Los Gatos *News*: Mr. Chittenden, who lives near the summit on the Bear Creek road, says that the codlin moth is not preva ling in that vicinity nearly as much as in previous years. He thinks it is being destroyed by a small bug or beetle, which crawls into the hole made by the insect soon after it is hatched and feeds upon it while it is a worm.

Sonoma.

BIDS FOR HOPS.—Petaluma *Courier*: It is said that the highest price offered for hops in Sonoma county thus far this season is 17½ cents. But few sales have been made, however, and most of the growers are holding their stocks for a better price—which they will be pretty apt to get.

Tehama.

IT PAYS NOT TO MISREPRESENT.—Red Bluff *Sentinel*: One of our leading fruitgrowers, H. B. Galliher, put up a carload of dried peaches, consigned to Messrs. Dean Bros. & Lincoln, wholesale grocers at Chicago, Illinois. The consignee has received a letter from the purchaser which we quote: "The car of peaches from Red Bluff which was assorted and sacked by H. B. Galliher, came in. I assure you that it gives the greatest pleasure to say that this car ran fully up to samples in every respect. Bag after bag was opened and each one was properly marked, and the whole car looked as if it had been properly handled. All of the different grades had been bulked and the samples drawn from them. I wish you to give the gentleman who shipped that car my best love. I would like to make his acquaintance, and when I die I will remember him. He is the only man who ever shipped a car of assorted fruit from California that came up to samples. Don't fail to remember me to him." We publish this for two or three reasons. First, it shows how buyers appreciate fair dealing; second, it shows that it pays to sample your goods fairly; third, it shows that the buyers can safely praise our goods, as they generally do. Our fruitgrowers will always find it to their advantage to cure and handle their fruit well and pack it in good order, and then buyers can afford to speak a word of encouragement to the growers.

Yuba.

HOP NOTES.—Wheatland *Four Corners*: Hop-picking will soon be a thing of the past. Picking was finished in J H. Durst's yard Sept. 14th, and the other yards will be through in about ten days. The hops are turning out to the perfect satisfaction of the growers. Hop-buyers are coming in thick and fast. They are anxious to buy, but cannot satisfy growers with prices. About 800 bales have been shipped up to date from Wheatland. In next issue we will give shipment of each grower.

ARIZONA.

CROP SUMMARY.—Arizona Weather Service, Sept. 12: Crops have grown well during the past week in western Arizona. A good crop of pumpkins was harvested in the vicinity of Fort Mohave. In the vicinity of Yuma, good showers and an even temperature have ministered to the growth of all vegetation. Lemons and oranges are ripening well. In the region about Prescott, in Yavapai county, all fruits are ripening well, No rain has fallen here during the week and range grass is greatly suffering from drought, and, owing to the lateness of the season, the prospects for a good growth of grass for winter feed are discourag ng, as it is feared frost is soon to follow. The corn crop will be rather light. In the vicinity of Buckeye, crops of all kinds have been benefited by the favorable weather of the past week. In the southern part of Yavapai county, in the vicinity of Farley's Camp, all vegetation continues to suffer from drought. Feed for cattle and water have never been known to be so scarce. Cattle are in bad condition. In the vicinity of Walnut grove, the corn crop is now ripe. Fruit is ripening slowly. The cutting of the third crop of alfalfa is now progressing. The drought continues in the vicinity of Payson and the northern part of Gila county. Stock is beginning to fail. A hard winter on stock is expected. Good rains have fallen in the vicinity of Dudleyville and surrounding country, and grass and crops are looking well. Plenty of water is available for irrigation. In the valley of the San Pedro, in the vicinity of Grand Central mill, the weather has been more favorable. Light showers of rain and cloudy weather have favored the growth of grass and all kinds of crops. Cattle are beginning to look better. Grass is short in the vicinity of Mt. Huachuca, except a narrow strip along the San Pedro, yet the prospects for rain in September seem encouraging. In the agricultural region around Calabasas, late crops are a little backward owing to the recent dry weather, and with good rains on will make only light crops. Corn and beans have been benefited by light showers. In the eastern part of Cochise county, in the vicinity of Willcox, the corn and alfalfa crops are greatly suffering from drought. The cattle ranges are destitute of grass, and cattle will die unless removed to other ranges.

NEVADA.

CALIFORNIA & NEVADA CREAMERY.—Virginia *Enterprise*: The California & Nevada Creamery Co., located on the Newlands ranch in Lyon county, was started up some time ago, but owing to a hitch in the machinery, nothing but cheese had been manufactured. The creamery now receives about 2000 pounds of milk daily from the Newlands ranch and one-half as much from the Phillips ranch near by. It has a capacity of 20,000 pounds daily, and has the largest plant of the kind on the coast. D. A. Bender is president of the company, T. R. Hofer secretary and Gov. Colcord general manager. C. E. Merrick of Grass Valley, Cal., has reconstructed the machinery and put everything in smooth, working condition. The company calculates to furnish nearly all of Storey county with delicious butter at a reasonable rate.

The State Fair.

Following are the awards given out to competitors in the stock exhibit at Agricultural Park:

First Department—Live Stock.

HORSES.

CLASS I—THOROUGHBRED HORSES.

In this class none were permitted to compete but such as furnished a complete pedigree, tracing the entire line of descent to the English parent on the side of both sire and dam.

STALLIONS.—Three Cheers, best four years old and over—Mrs. W. M. Murry, Sacramento, $20; Wildwood, best three years old—Ocean View Stables, West Berkeley, $15; San Jacinto, best two years old—L. J. Rose, San Gabriel, $20; Steadfast, second best—W. F. Smith, Sacramento, $10; Alaxis, best one year old—L. J. Rose, San Gabriel, $15; Boozo, second best—L. J. Rose, San Gabriel, $7.50.

MARES.—Isabella and colt, best four years old and over, with suckling colt—C. Halverson, Routiers, $40; Jessie C. and colt, second best—Mrs. W. M. Murry, Sacramento, $20; My Badge, best four year old and over—L. J. Rose, $30; Maggie S., second best—C Halverson, $15; best three-year-old—L. J. Rose, $25; second best—Mrs. W. M. Murry, $12.50; best two years old—Mrs. John Wolfskill, Sacramento, $15; second best, L. J. Rose, $7.50; best one year old—C. L. Fair, Jr., San Francisco, $10; second best—C. L. Fair, Jr., San Francisco, $5; best colt under one year—C. Halverson, $10; second best—L. J. Rose, $5.

FAMILIES.—Best thoroughbred sire, with not less than five of his colts, all thoroughbred—Mrs. W. M. Murry, $50; best thoroughbred dam, with not less than two of her colts, all thoroughbred—C Halverson, $75; best stallion, other than thoroughbred, with no less than five of his colts, open to all—Denman & McNear, Petaluma, $100; best dam, other than thoroughbred, with not less than two other colts—J. L. McCord, Sacramento, $75.

CLASS II—STANDARD TROTTERS.

STALLIONS.—Ross S., best four years old and over—Mrs. Worth Ober, Sacramento, $40; Redondo, second best—Walter Mayben, Savannah, $20; Kebis, best three year old—W. F. Smith, Sacramento, $30; Freckles, second best Walter Mayben, $15; best two years old—C. L Fair, Jr., $20; second best—Mrs. Worth Ober, $10; best one year old—La Siesta Ranch, Menlo Park, $15; second best—William Johnston, Sacramento; $7.50; best suckling colt—William Johnston, $10; second best—E. J. Carragher, Sacramento, $5; best gelding—La Siesta Ranch, $20.

MARES.—Best four years old and over, with suckling colt, La Siesta Ranch, $40; second best—Wm. Johnston, $20; best four years old and over—J. L. McCord, $30; second best—A. L. Hart, Sacramento, $15; best three years old—Frank Hays, Poplar, Tulare county, $30; second best—Mrs. F. C. Snider, Sacramento, $15; best two years old—G. A. Buckman, Sacramento, $20; second best—E. S. Elkus, Sacramento, $10; best one year old—La Siesta Ranch, $10; second best, A. L. Hart, $5; best suckling colt—La Siesta Ranch, $10; second best—Geo. Lassner, Freeport, $5.

CLASS III—ROADSTERS.

STALLIONS.—Best four year old and over—W. Mastin, Sacramento, Nutwood Boy, $40; second best—B E. Harris, S. F., Marvel, $20; best three year old—J. M. Caps, Modesto, Fal Malone, $30; second best—S. Hogaboom, Woodland, John Clay, $15; best two year old—H. V. Tranynban, Arbuckle, $20; second best—T. Beckley, Grimes, $10; best one year old—S. Pickett, Sacramento, $15; second best—E. M. Leitch, Sacramento, $7.50; best roadster gelding—E Oppenheim, Sacramento, $40; second best—Ras Spurgeon, Colusa, $20.

MARES.—Best four years old and over, with suckling colt, under protest, $40; second best—B. E. Harris, San Francisco, $20; best four years old and over—Frank Drake, Vallejo, $30; second best—J. E. Terry, Sacramento, $15; best three years old—J. W. Caps, Modesto, $30; second best—F. C. Knauer, Modesto, $15; best two years old—B. E. Harris, $20; second best—Walter Wylie, Sacramento, $10; best one year old—Valley View Farm, Auburn, $10; second best—George Lassner, Freeport, $5; best suckling colt, C. H. Gilman, Sacramento, $10; second best—B. E. Harris, San Francisco, $5.

Best four year old roadster mare—Ben E. Harris, San Francisco.

Second best four year old roadster mare—T. Waite, Perkins.

CLASS IV—CLEVELAND BAYS AND FRENCH COACH.

Best stallion, four year old and over—H. Wilsey, Petaluma, Nonpareil, $20; best stallion three year old and over—Holbert & Conger, Los Angeles, $15.

SPECIAL FOR GERMAN COACH.—Best stallion four years old and over—A. M. Linnell, Orange Vale, $20; best stallion three years and over—Holbert & Conger, Los Angeles, $15.

CLASS V—CARRIAGE TEAMS.

Best matched span carriage horses, owned and used as such by one person—R. B. Hall, Pleasant Grove, silver goblet or $75; second best—F. H. Carson, Lodi, silver goblet or $40.

CLASS VI—ROADSTER TEAMS.

Best double team roadsters owned and used as such by one person—T. B. Gibbon, Woodland silver goblet or $50, second best—La Siesta ranch, silver goblet or $30.

CLASS VII—HORSES OF ALL WORK.

STALLIONS.

Best four years old and over—J. Heintz, Sacramento, $40, second best, B. E. Harris, San Francisco, $20; best two years old—G. Lassner, Freeport, $20; second best—Carson & Griffits, Geyserville, $10; best one year old—Mrs. A. D. Miller, Walsh's Station, $7.50; best under one year—G. Lassner, Freeport, $10; second best—Mrs. W. H. Hand, Sacramento, $5.

MARES.—Best four years old and over, with colt—J. Heintz, Sacramento, $40; second best—T. Waite, Perkins, $20; best four years old and over—H. L. Miller, Walsh, $30; second best—A. D. Miller, Walsh, $15; best three years old—A. L. Hinds, Oakland, $10; best two years old—J. H. Glide, Sacramento, $7.50; best one year old—T

Waite, Perkins, $5; best suckling colt—G. Lassner, Freeport, $5.

CLASS VIII—DRAFT HORSES—NORMANS AND PERCHERONS.

STALLIONS.—Best four years old and over—T. Skillman, Petaluma, $40; Second best—A. M. Linnell, Orange Vale, $20; best two years old—T. Skillman, $10; best one year old—F. B. Chandler, Elmira, $15; second best—Hopland Stock Farm, Hopland, $7.50; best under one year—F. B. Chandler, $10; second best, Hopland Stock Farm, $5.

MARES.—Best four years old and over, with colt—Hopland Stock Farm, $40; second best, F. B. Chandler, $20; best four years old and over—T. Skillman, $30; second best—Hopland Stock Farm, $15; best one year old—Hopland Stock Farm, $5; best suckling colt—Hopland Stock Farm $5.

CLASS IX—SUFFOLK PUNCH.

Best stallion four years old and over—T. Skillman, Petaluma, $20; best three years old—T. Skillman, $15; best two years old—T. Skillman, $10; best mare four years old and over—J. E. McDonald, Carson, $15; best two years old—J. E. McDonald, Carson, $7.50; best one year old—J. E. McDonald, Carson, $5.

CLASS X—CLYDESDALES.

Best stallion four years and over—Denman & McNear, Petaluma, $40; second best—C. L. Taylor, San Francisco, $20; best three years old—Denman & McNear, Petaluma, $30; second best—T. A. Nufer, Sonoma, $15; best two years old—T. A. Nufer, $20; second best—Denman & McNear, $10; best one year old—J. H. Glide, Sacramento, $7 50; best suckling colt—Denman & McNear, $5; best mare four years old and over, with colt—Denman & McNear, $40; second best—C. L. Taylor, $20; best three years old—Morgan Hill, San Jose, $30; second best—Denman & McNear, $15; best two years old—Denman & McNear, $7.50; best one year old—C. L. Taylor, $10; second best—Denman & McNear, $5; best suckling filly—C. L. Taylor, $10; second best—Denman & McNear, $5.

CLASS XI—ENGLISH SHIRES.

Best stallion four years old and over—T. Skillman, $40; second best—Parson & Griffith, $20; best three years old—Hobert & Conger, $30; second best—Parson & Griffith, $15; best two years old—Parson & Griffith, $10; best mare four years old or over with colt—J. T. Whitney, Rocklin, $40; second best—J. M. Madison, Rocklin, $20; best four years old without colt—J. T. Whitney, $30, second best—J. M. Maddison, $15; best suckling colt—J. T. Whitney, $10; second best—J. M. Maddison, $5.

CLASS XII—DRAFT HORSES OTHER THAN THOSE CLASSIFIED.

STALLIONS.—Best stallion four years old and over—J. T. Whitney, Rocklin, $40; second best—S. N. Smith, Sycamore, Colusa county, $20; best two years old—R. J. Merkeley, Sacramento, $10; best one year old—F. W. Midgley, Sacramento, $15; second best—J. H. Gilde, Sacramento, $7.50; best under one year—W. S. Wright, Davisville, $5.

MARES.—Best mare four years old and over with colt—J. T. Whitney, $40; second best—J. H. Gilde, $20; best four years old without colt—R. J. Merkeley, $30; second best—F. W. Midgley, $15; best three years old—F. W. Midgeley, $25; second best, R. J. Merkeley, $12.50; best two years old—J. H. Glide, $15; second best—R. J. Merkeley, $7.50; best one year old—J. H. Gilde, $10; second best—Charles Studarus, Routiers, $5; best suckling fillly—W. H. Harbell, Compton, $5; to the stallion making the fastest mile, waking gait, to wagon, with one ton weight exclusive of driver—Denman & McNear, Petaluma, $30; second best—T. Skillman, Petaluma, $15.

CLASS XIII—SADDLE HORSES.

Best saddle horse, mare or gelding—B. E. Harris, San Francisco, $20; second best—L. D. Droning, San Jose, $10.

CLASS XIV—JACKS, JENNIES, ETC.

JACKS.—Best four years old and over—J. R. Madden, Dixon, $40; second best—C. Studarus, Routiers, $20; best three years old—J. D. Rosenberger, Sites, $15.

JENNIES.—Best four years old and over—J. D. Rosenberger, $30; second best—C. Studarus, $25; best three years old—C. Studarus, $15; best one year old—C. Studarus, $5; best suckling—J. D. Rosenberger, $5.

MULES.—Best matched span, three years old and over, California bred—C. Studarus, $30.

Cattle.

THOROUGHBRED CLASS.

Best thoroughbred steer or spayed or barren heifer of any class, three years old or over—W. B. Gibson, Woodland, $30.

GRADED CLASS.—Best graded steer or spayed or barren heifer, three years old and over—W. B. Gibson, $15.

CLASS I—DURHAMS.

BULLS.—Best three years old and over—J. M. Grimes, Dixon, $40; second best—P. H. Murphy, Sacramento, $20; best two years old—Heilbron Bros., Sacramento, $30; second best—V. E. Hill, Hanford, $15; best one year old—Heilbron Bros., $20; second best—C. Younger & Son, San Jose, $10; best bull calf—Heilbron Bros., $15; second best—C. Younger & Son, $7.50.

COWS.—Best three years old and over—J. M. Dixon, $40; second best—J. M. Dixon, $20; best two years old—J. M. Dixon, $30; second best—Heilbron Bros., $15; best one year old—Heilbron Bros., $20; second best—J. M. Dixon, $10; best heifer calf—Heilbron Bros., $15; second best—C. Younger & Son, $7.50.

HERDS.—Best herd of thoroughbred Durham cattle, two years old and over, to consist of one male and four females, owned by one person, silver pitcher, or cash—C. Younger & Son, $60; best young herd of thoroughbred Durham cattle, under two years, to consist of one male and four females, owned by one person, silver pitcher, or cash—Heilbron Bros., $30.

SWEEPSTAKES.—Best bull, any age—Heilbron Bros., $65; best cow, any age—C. Younger & Son, $75.

CLASS III—HEREFORDS.

BULLS.—Best three years old and over—Heilbron Bros., $40; second best—Bement & Son, Oakland, $20; best two years old—Heilbron Bros., $15; best one year old—Heilbron Bros., $10; best bull calf—Heilbron Bros., $7.50.

COWS.—Best three years old and over—Heilbron Bros., $40; second best—Heilbron Bros., $20; best two years old—Heilbron Bros., $15; best one year old—Heilbron Bros., $10; best heifer calf—Heilbron Bros., $7.50.

HERDS.—Best herd of thoroughbred Hereford cattle, two years old and over, to consist of one one male and four females, owned by one person—Heilbron Bros., silver pitcher or $30; best young herd of thoroughbred Hereford cattle, under two years, to consist of one male and four females, owned by one person—Heilbron Bros, silver pitcher or $15.

SWEEPSTAKES.—Best bull, any age—Heilbron Bros., $60; best cow, any age—Heilbron Bros., $60.

CLASS IV—ANGUS OR GALLOWAYS.

BULLS.—Best three years old and over—W. B. Gibson, Woodland, $20; best two years old—W. B. Gibson, Woodland, $30; second best—Dr. G. M. Dixon, Sacramento, $15; best one year old, W. B. Gibson, $20; second best—Dr. G. M. Dixon, $10; best bull calf—W. B. Gibson, $15; second best, Dr. G. M. Dixon, $7 50.

COWS.—Best three years old and over—W. B. Gibson, $40; second best—W. B. Gibson, $20; best two years old, W. B. Gibson, $30; second best—Dr. G. M. Dixon, $15; best one year old—Dr. G. Dixon, $20; second best—W. B. Gibson, $10; best heifer calf—Dr. G. M. Dixon, $15; second best, W. B. Gibson, $7.50.

HERDS.—Best herd of thoroughbred Angus or Galloway cattle, two years old and over, to consist of one male and four females, owned by one person, silver pitcher or cash—W. B. Gibson, $60; best young herd of thoroughbred Angus or Galloway cattle, under two years, to consist of one male and four females, owned by one person, silver pitcher or cash—W. B. Gibson, $15.

SWEEPSTAKES.—Best bull, any age—Dr. G. M. Dixon, $50; best cow, any age—W. B. Gibson, $65.

CLASS VI—HOLSTEIN, OR FRIESIAN.

BULLS.—Best three years old and over—F. H. Burke, Menlo Park, $40; second best—T. B. Hall, Sacramento, $20; best two years old—F. H. Burke, $15; best one year old, T. B. Hall, $20; second best—F. H Burke, $10; best bull calf—F. H. Burke, $15; Second best—T. B. Hall, $7 50.

COWS.—Best three years old and over—F. H. Burke, $40; second best—F. H. Burke, $20; best two years old—T. B. Hall, $30; second best, T. B. Hall, $15; best one year old—F. H. Burke, $20; second best, T. B. Hall, $10; best heifer calf, T. B. Hall, $10; second best—F. H. Burke, $7.50.

SWEEPSTAKES.—Best bull, any age—F. H. Burke, Menlo Park, $60; best cow, any age, T. B. Hall, Sacramento, $60.

HERDS.—Best herd of thoroughbred Holstein or Friesian cattle, two years old and over, to consist of one male and four females, owned by one person—F. H. Burke, silver pitcher or $60; best young herd of thoroughbred Holstein or Friesian cattle, under two years, to consist of one male and four females, owned by one person—F. H. Burke, silver pitcher or $30.

CLASS VII—JERSEYS AND GUERNSEYS.

BULLS.—Best three years and over—Henry Pierce, San Francisco, $40; second best—L. M. Ecles, San Danias, $20; best two years old—Henry Pierce, $30; second best—W. C. Smith, Florin, $15; best one year old—Henry Pierce, $10; best bull calf—P. J. Shields, Sacramento, $15; second best—Henry Pierce; $7.50.

COWS.—Best three years old and over—Henry Pierce, $40; second best—G. D. Campbell, Petaluma, $20; best two years old—Henry Pierce, $30; second best—G. D. Campbell, $15; best one year old—Henry Pierce, $20; second best—G. D. Campbell, $10; best heifer calf—Henry Pierce, $15; second best—Mrs. E. H. Green, Sacramento, $7.50.

HERDS.—Best herd of thoroughbred Jersey or Guernsey cattle, two years old and over, to consist of one male and four females, owned by one person—Henry Pierce, silver pitcher or $60; best young herd of thoroughbred Jerseys or Guernsey cattle, under two years old, to consist of one male and four females, owned by one person—G. D. Campbell, silver pitcher or $30.

SWEEPSTAKES.—Best bull, any age—Henry Pierce, San Francisco, $70; best cow, any age—Henry Pierce, $80.

CLASS VIII—AYRSHIRES.

BULLS.—Best three years old and over—G. Bement & Son, $40; second best—H. B. Nichols, Grass Valley, $20; best two years old—G. Bement & Son, $15; best one year old—G. Bement & Son, $10; best bull calf—G. Bement & Son, $7.50.

COWS.—Best three years old and over—G Bement & Son, $40; second best—H B. Nichols, $20; best two years old—G. Bement & Son, $30; second best—G. Bement & Son, $15; best one year old—H. B. Nichols, $20; second best—G. Bement & Son, $10; best heifer calf—H. B. Nichols, $15; second best—G. Bement & Son, $7.50.

HERDS.—Best herd of thoroughbred Ayrshire cattle, two years old and over, to consist of one male and four females, owned by one person—G. Bement & Son, silver pitcher or cash, $60; best young herd of thoroughbred Aryshire cattle, under two years, to consist of one male and four females, owned by one person—G. Bement & Son, silver pitcher or cash, $15.

SWEEPSTAKES.—Best bull, any age—G. Bement & Son, Oakland, $60; best cow, any age—H. B. Nichols, Grass Valley, $50.

CLASS IX—HERD SWEEPSTAKES.

BEEF BREEDS.—Best herd, to consist of one bull and four females of the following ages: Four years old or over, three years old, two years old, one year old—Dr. G. M. Dixon, Sacramento, $130.

MILK BREEDS.—Best herd, to consist of one bull and four females of the following ages: Four years old or over, three years old, two years old, one year old—T. B. Hall, Sacramento, $130.

Sheep.

CLASS I—SPANISH MERINO.

Best ram, two years old and over—F. Bullard, Davisville, $15; second best—F. Bullard, Davisville, $11.25; best three ram lambs—F. Bullard, Davisville, $11.25; best pen not less than five ewes, two years old and over—F. Bullard, Davisville, $11.25; best pen not less than five ewes, one year old and under—F. Bullard, Davisville, $11.25; best pen of not less than five ewe lambs—F. Bullard, Davisville, $11.25; best ram and five of his lambs—F. Bullard, $15.

CLASS II—FRENCH MERINO.

Best ram two years old and over—J. H. Glide, Sacramento, $15; best ram one year old and under two years—J. H. Glide, $11 25; best three ram lambs—J. H. Glide, $11.25; best pen of not less than five ewes, two years old and over—J. H. Glide, $11.25; best pen of not less than five ewes, one year old and under two years—J. H. Glide, $11.25; best pen of not less than five ewe lambs—J. H. Glide, $11.25; best ram and five of his lambs—J. H. Glide, $11.25.

CLASS III—SOUTHDOWN.

Best ram, any age—G. Bement & Son, Oakland, $10; best pen ewes, not less than five, of any age—G. Bement & Son, Oakland, $10.

CLASS V—SHROPSHIRE.

Best ram, any age—J. H. Glide, Sacramento, $20; second best—T. B. Hall, Sacramento, $10; best pen ewes, not less than five, of any age—T. B. Hall, Sacramento, $20; second best—J. H. Glide, $10; best ram and five of his lambs—T. B. Hall, $20; second best—J. H. Glide, $10; best three ram lambs—J. H. Glide, $11.25; best pen of not less than five ewe lambs—T. B. Hall, $22.50; second best—J. H. Glide, $11.25,

SPECIAL—PERSIAN SHEEP.

Best ram, two years old and over—C. P. Bailey, San Jose, $10; best ram, one year old and under two years—C. P. Bailey, $10; best ewe, two years old and over—C. P. Bailey, $5; best pair of lambs—C. P. Bailey, $5.

SWEEPSTAKES.

Best merino ram and five of his lambs—F. Bullard, Woodland, $36; best ram, other than merino, and five of his lambs—J. H. Glide, $26.

Angora Goats.

THOROUGHBREDS.—Best buck two years old and over—C. P. Bailey, San Jose, $25; second best—Isaac Lee, Florin, $12.50; best buck under two years—C. P. Bailey, $15; best pen of not less than three does, two years old and over—C. P. Bailey, $25; second best—Isaac Lee, $12.50; best pen of not less than three does, under two years—C. P. Bailey, $15; second best—Isaac Lee, $7.50.

GRADED.—Best pen of not less than three does, two years and over—Isaac Lee, $5.

HERDS.—Best herd of not less than ten, of any age or breed—C. P. Bailey, $30; second best—Isaac Lee, $15.

Swine.

CLASS I—BERKSHIRE.

Best boar two years old and over—C. C. Perkins, Perkins, $20; second best—Alfred Seale, Mayfield, $10; best boar one year old and under two years—J. E. Lucas, San Rafael, $15; second best—Sessions & Co., Los Angeles, $7.50; best boar six months old and under one year—P. H. Murphy, Brighton, $10; second best—Sessions & Co., $5; best breeding sow two years old and over—J. E. Lucas, $20; second best—Sessions & Co., $10; best sow one year old and under two years—A. Seale, $15; second best—Sessions & Co., $7.50; best sow six months old and under one year—Sessions & Co., $10; second best—P. H. Murphy, $5; best sow and six pigs under three months—J. E. Lucas, $20; second best, T. Waite, Perkins, $10; best pair of pigs under six months—T. Waite, Perkins, $15; second best—A. Seale, $7.50.

Best Berkshire boar—T. Waite, Perkins.

Best Berkshire sow—J. E. Lucas, San Rafael.

Best pen of pigs under six months—Alfred Seale, Mayfield.

Best family—Alfred Seale, Mayfield.

CLASS II—ESSEX.

Best boar two years old and over—G. Bement & Son, Oakland, $10; best boar six months old and under one year—G. Bement & Son, $5; best sow two years old and over—G. Bement & Son, $10; best sow and six pigs under six months—G. Bement & Son, $5; best pair of pigs under six months—Geo. Bement & Son, $7 50.

CLASS SWEEPSTAKES.

Best boar of any age—Geo. Bement & Son $12; best sow of any size—Geo. Bement & Son, $12.

CLASS III—POLAND CHINA.

Best boar two years old and over—P. H. Murphy, Brighton, $20; second best—J. Melvin, Davisville, $10; best boar one year old and under two years—J. Melvin, $15; second best—P. H. Murphy, $7.50; best boar six months and under one year—J. Melvin, $10; second best—P. H. Murphy, $5; best sow two years old and over—P. H. Murphy, $20; second best—J. Melvin, $10; best sow one year old and under two years—P. H. Murphy, $15; second best—J. Melvin, $7.50; best sow six months and under one year—J. Melvin, $10; second best—P. H. Murphy, $5; best sow and six pigs—J. Melvin, $10; best pair of pigs under six months—J. Melvin, $15; second best—P. H. Murphy, $7.50.

SPECIAL—SMALL YORKSHIRE.

Best boar two years old and over—M. L. Ecles, Los Angeles, $10; best boar six months old—M. L. Ecles, $7.50; best sow two years old and over—M. L. Ecles, $10; best sow six months old—M. L. Ecles, $5; best sow and six pigs under three months old—M. L. Ecles, $10; best pair of pigs under six months old—M. L. Ecles, $7.50.

Poultry.

DARK BRAHMAS.

Best cock and hen—E. H. Freeman, San Jose, $3; best cockerel and pullet—E. H. Freeman, San Jose, $3; best breeding pen, to consist of one male and four females—E. H. Freeman, San Jose, $5.

BUFF COCHINS.

Best cock and hen—G. H. Crowley, San Francisco, $3; best cockerel and pullet—G. H. Crowley, San Francisco, $3; best breeding pen, to consist of one male and four females—G. H. Crowley, San Francisco, $10.

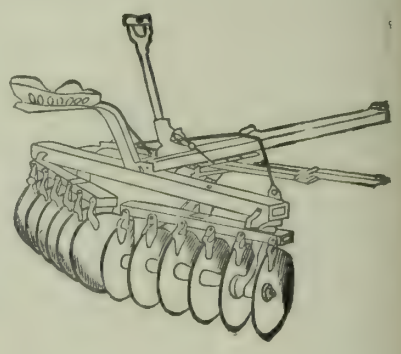
PARTRIDGE COCHINS.

Best cock and hen—E. H. Freeman, $3; best breeding pen, to consist of one male and four females—E. H. Freeman, $10.

(Continued on page 260)

CLIMAX

DISC HARROWS



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They have 400,000 acres of arable, irrigable lands upon which the sun shines almost constantly; and their enormous irrigation system renders them independent of the annual rainfall.

A clear title; rotation, variety and certainty of crops; easy terms; availability to persons in moderate circumstances; ground ready for the plow—no stones nor thistles; good society; schools; churches, etc., are a few notable attractions of this region of country.

Kern is the largest county in the San Joaquin Valley. It has the finest climate for curing and drying fruits, etc.

The 400,000-acre territory of the Kern County Land Company is the pick of the county.

Its area is 5,184,000 acres.

Has the largest irrigation system in America.

The home of the peach, French prune, pear and raisin grape.

Planting and harvesting can be carried on every month in the year.

No rocks, hills or stumps on the land.

A failure of crops is unknown on irrigated lands.

Kern county fruits take the first prize at the State Fair.

Land can be made to pay for itself in less than three years.

Grows more alfalfa than any other county in California.

The advantages of good soil and plenty of sun, which occur in the Kern Valley, would have been of little avail but for the third and all-important one of an abundance of water from never-failing sources.

Through 300 miles of main canals, and 1,100 miles of laterals, the great Kern river furnishes enough moisture to slake the thirst of the 400,000 acres already referred to.

Drought is out of the question.

The system has been constructed in the most careful and scientific manner. Some of the canals are 125 feet wide and six feet deep.

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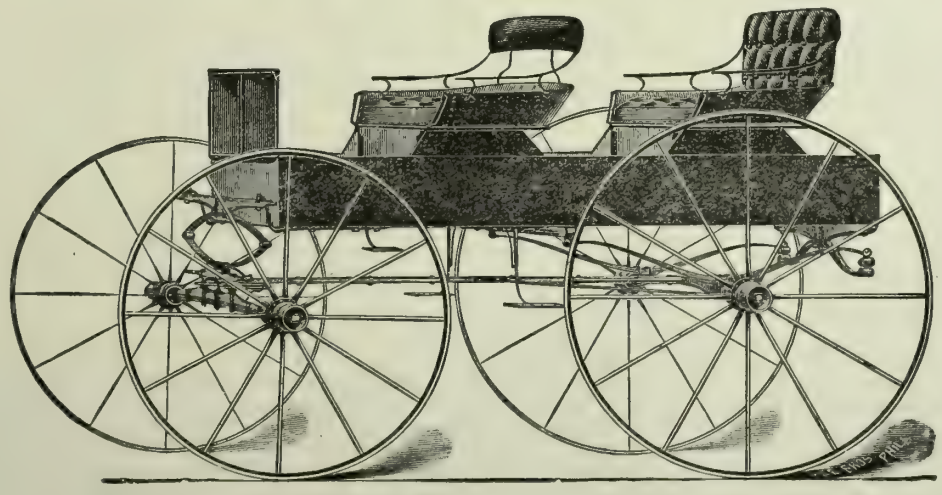

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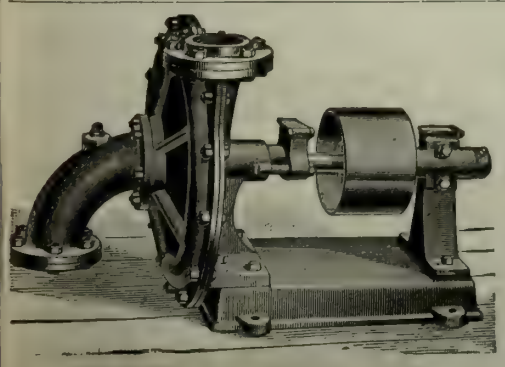

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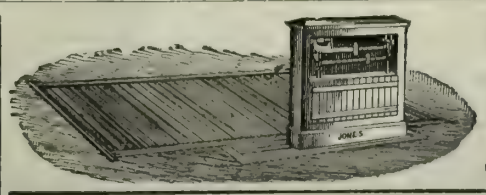

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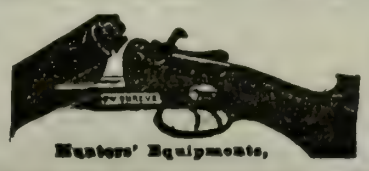

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THE HOME CIRCLE.

Poem by Whittier.

"It may not be our lot to wield
The sickle in the ripened field;
Nor ours to hear, on summer eves,
The reapers' song among the sheaves.

"Yet where our duty's task is wrought
In unison with God's great thought,
The near and future blend in one,
And whatsoe'er is willed, is done.

"And ours the grateful service whence
Comes, day by day, the recompense,
The hope, the trust, the purpose stayed,
The fountain and the noonday shade.

"And were this life the utmost span,
The only end and aim of man,
Better the toil of fields like these
Than waking dream and slothful ease.

"But life, though falling like our grain,
Like that revives and springs again;
And, early called, how blest are they
Who wait in heaven their harvest day."

The Broken Wing.

I walked in the woodland meadows,
Where sweet the thrushes sing,
And I found on a bed of mosses
A bird with a broken wing.
I healed the wound, and each morning
It sang its old, sweet strain,
But the bird with the broken pinion
Never soared as high again.

I found a youth, life-broken
By sin's seductive art,
And touched with Christ-like pity,
I took him to my heart.
He lived with a noble purpose,
And struggled not in vain;
But the soul with a broken pinion
Never soars as high again.

But the bird with a broken pinion
Kept another from the snare,
And the life that sin had stricken
Raised another from despair.
Each loss had its compensation;
There were healings for each pain;
But the bird with the broken pinion
Never soars as high again.

—Anon.

Aunt Hannahran.

Written for the RURAL PRESS by KATHERINA BRYANT NOLAN.

Aunt Hannahran Stebbins rocked herself comfortably in a small old-fashioned rocker by the western window. Her fingers flew swiftly round a stocking of homespun blue yarn, while the needles clicked sharply and sent forth flashes of brightness that were an entertaining homily on her industry to a istening ear and a romantic eye, Aunt Hannahran's glasses, glinted with rainbow tints, caught from those western heavens which lay so far beyond the bare brown elms standing in the yard, like the trouble and sorrow ever standing 'twixt earth and heaven. Mayhap some thought of this was in her mind as she placidly gazed at them; still those busy, noisy needles never rested in the mad and merry race they were engaged in for an instant.

Aunt Hannahran was a woman of forty or thereabout, but she looked older than that by a number of years, and her dark, faded-looking eyes and her high, broad forehead were crowned with an abundance of silvery gray hair. She wore it brushed tightly back, showing three deep lines in her white brow—marks which the hand of time had set there and aggravating the crows' feet at the corners of her eyes into greater prominence. A less rigid style might have subdued and softened the contour of her face, but Aunt Hannahran was unmindful of any frivolous details and was prone to deal with the stern realities of life. This selfsame living-room of the Stebbin's household was a refuge for the young folks of Denham, who always flocked to Aunt Hannahran sure of sympathy and much good counsel whenever the troubles of life became burdensome to their young souls. She settled lovers' quarrels in an edifying way, and she may have enjoyed the prestige she held all the more keenly on account of the fact that her husband, Hezekiah Stebbins, frowned upon her popularity.

"The course of true love never runs smooth," said Elsie Dinnock, the tinsmith's daughter, once upon a time when she had quarreled with Nat Parsons.

"Law, child, nothin' runs smooth any way; nothin' ever has since Adam and Eve went out, hand in hand, from the beautiful gardin' of Eden. Now, what have you been a sayin to Nathaniel, Elsie Dinnock?" Aunt Hannahran asked, looking at the tear-stained, angry little face belonging to the small body on the settle beside the big fireplace, where the great knobs of shining brass stood, listening, silent witnesses, seemingly eager to drink in all the stray gossip of Denham.

"Nat—"

"What did you say to Nathaniel?" Aunt Hannahran interrupted quickly, speaking each word with a deliberateness that brought the delinquent to a sense of her delinquencies, and hers alone.

"Well, Melissa Hopkins she told—"

"Yes, and Melissa Hopkins has been a throwin' herself and her pa's dollars and her pa's acres at Nathaniel for three year back, to my certain knowledge, and Melissa ain't got him yet. I dare say she will though," continued Aunt Hannahran, meditatively and calmly, "Melissa is a likely enough girl."

"Oh, Aunt Hannahran, don't say that! I know I was real hateful, and I 'spose Nat does think I'll make his life a burden. I get so mad, and Melissa always stirs up every bit of badness in me, and then I just do or say anything to shock Nat. Nat's so good and so stupid I can't help quarreling with him!"

"Well, I guess Melissa won't get Nat this year, but you must be more careful, Elsie. You don't bear the troubles we all hev to bear in a Christian sperit," and so Elsie went home comforted.

The next evening, Aunt Hannahran looked at Nat as he sat stiffly on this self-same settle, holding his hat in his hand. His hair was brushed back smartly, and plastered down over his ears in a vain endeavor to make it stay put, and he evidently expected a sermon and waited uneasily for it to begin.

"How's the cider gittin' on, Nathaniel?" she asked in a business-like tone, looking at him from over the top of her glasses.

"Tolerable" he answered briskly with a relieved accent, and his face suddenly assumed an easier expression. Aunt Hannahran was not going to lecture him after all.

"Seen Melissa Hopkins lately?" She went on in a reassuring and confidential way. I want to see Melissa. She's a likely gal and I hear she's learned a new embroidery stitch. She's smart!" said Aunt Hannahran meditatively as she carefully picked up a dropped stitch in her knitting work, "She'll make a good wife and the man who steps in and takes her off'n her pa's hands 'll be a lucky one. She can fix up a parlor spick-spack too, 'n I think its time she was agoin' off—she must be twenty if she's a day."

All this time, Nat's face was getting redder and redder. He shuffled his huge feet and twirled his hat in his big, red hands, and looked as if he heartily wished he had never come at all, yet he was as powerless to go as he had been to resist the summons Aunt Hannahran had managed to adroitly send him. Just the fact that Elsie Dinnock had been to see her, was enough to put him in torture until he was on the road to this refuge of all lovers. He wanted Aunt Hannahran to know that he loved Elsie Dinnock and now to hear her run on about Melissa was maddening. Cold chills raced up and down his back and he started as if he was shot when she suddenly said:

"You ought to be a settlin' down, Nathaniel. Now—why don't you try for Melissa? It 'ud be a good thing for ye."

I don't care for Melissa, Aunt Hannahran. Since Elsie has quarreled with me I don't care about anything. I guess I'll go away" he gulped out.

"Ho!" said Aunt Hannahran. She laid down her knitting work at this juncture and pushed her glasses up on the top of her head. "I guess Elsie likes you but she is quick-tempered, and you know the Dinnock's a'nt wealthy; mebbe she's jealous of Melissa. I'll tell you what I'll do, Nathaniel. I'll find out. Elsie is a mighty good gal an' you're no need to look out for a rich wife, seein' you're an only son, though it's nice to have some one round who can fix up a parlor nice and spic-spac, and I a'nt no hand at that 'n I don' know as Elsie is."

"Oh, Aunt Hannahran, if you'd only fix it up with Elsie," Nat said, gulping down his emotion, "I,d do anything. I don't know how to take her right, but I don't care for any other girl."

Of course, Aunt Hannahran "fixed it," and the wedding bells soon chimed sweetly for Elsie and Nathaniel, at least in their hearts. Weddings in church were not the fashion in plain-going puritan Denham, and after this fashion the oracle ruled in a royal way.

To come back to the evening our story opens, which was destined to be a never-forgotten one in the family history, Hezekiah Stebbins went by the window once or twice and walked directly between the elms and the house with all his usual briskness. There was an old-fashioned escritoire beside the window, and before it, just where she, too, had a full view of the trees and sky, sat a young girl. A slight frown rose upon her fair face as this shadow crossed the prospect, but she bent to her work with greater studiousness.

She had indeed the fair, clear skin only seen in women with dark hair and eyes, and her print gown fitted a figure that was slender and slim with an unlooked-for nicety. Uncle Stebbins was a short, thick-set man with iron-gray hair and a close-trimmed, bristly beard, and he was never satisfied with anything that anybody did, always excepting Hezekiah Stebbins.

The ledger at which she labored was kept for the most part in a neat, schoolgirl, copy-like hand, but there were some pages done in a crabbed style, and if the handwriting is really an index of the character, then those symbols dwarfed and stunted and irregular were not a prepossessing indication of the amiability of temperament or the size of soul of Hezekiah Stebbins. Be that as it may, there they stood to mark the progress of events, and Carrie Defarge stumbled over them filled with impatience and vexation. It grew slightly dark and Aunt Hannahran went to sleep.

Carrie sat alternately watching her and the fast growing twilight, as she nodded, woke with a start, knit a bit and then dozed off again until she was sound asleep.

Suddenly, the outside door opened and some one came quickly through the outer kitchen and hastily lifted the latch of the room they sat in. Both women faced the door. Aunt Hannahran pushed her spectacles up and stared at the man who stood there gasping and breathing in agony in the vain effort to control his voice. Elsie looked at him steadily a moment, and her skin grew darker and her lips set themselves in a firm, straight line. Then she went up to the man and put her hand on his harm.

"What is it, Jabez? What's the matter?"

"Mr. Stebbins—Cæsar," gasped Jabez. Without a word she took her hand off from his shoulder and ran to the barnyard. It was so dark she could hardly distinguish anything in the corners where the deep shadows lay, but she thought she descried something that might be uncle near a rough pile of logs at one side of the barn, still she was unable to determine that it was Uncle Stebbins. Cæsar was a valuable bull of Devonshire stock and was usually easily enough handled, but now he seemed quite mad with rage, and he tore about the barnyard like a demon possessed with a furious longing to destroy the whole universe. There was no one to help! The nearest neighbor lived a mile away and Jabez was paralyzed with fright, but Carrie suddenly remembered the lane that led down to the wood and she determined to lure Cæsar into it. Once he was in the lane and the bars up behind him her uncle would be safe from his fury.

It was a dangerous undertaking, as she had a high, rough fence to climb over, and when the bars were down her life depended upon her luck in climbing back quick enough to escape those treacherous horns, but these ideas were mere flashes across her brain; scintillating sparks that hardly made an impression before the bars were down and she was climbing back. Her skirts caught and her hands were torn with the roughness, but she knew Cæsar had heard her and she had seen those glaring eyeballs searching out the intruder, and now she felt his hot breath on her neck; her teeth chattered like castanets, and for a moment she felt as if she must let go, but by a supreme effort of will she swung herself over and stood on the other side and confronted the animal.

She was just in time, and running along toward the wood, thus inviting Cæsar to a friendly race, she shouted back to Jabez and ordered him to put up the bars quick. Cæsar needed just this little friendly start toward the wood to remind him of the delights of freedom which civilization and imprisonment had hitherto denied him, and he set off at a mad gallop, so the thing was done and quickly, too.

Uncle Hezekiah Stebbins lay torn and bleeding by the logs which had sheltered him from Cæsar's fury. Aunt Hannahran mutely assisted Jabez and Carrie in moving him onto the old door that Jabez had wrenched off its hinges, and they started for the house without a word; words seemed useless, it was necessary to act. The stars were out now and Carrie always remembered seeing one star far away to the east, blinking and winking and seemingly holding out hope to a heart bursting with anxiety and excitement. This bright harbinger steadied her and nerved her for the struggle with death which was before them. He stalked grimly by the side and went into the door along with them and their senseless burden.

They carried him in through both kitchens, across the sittingroom and gently laid him upon his own bed. It was a small room, directly off this larger one, at one end of the house. Carrie brought water and towels and liniments and bandages, hartshorn and brandy, while the others worked.

"He breathes yet; I feel his heart beat! Jabez said, softly. I'll have Dr. Rider here soon's as I can find him. I'll send the Goodwin's up 's I go along.

When Doctor Rider walked into the kitchen, Mrs. Goodwin sat in the little rocking-chair, and judging by the looks of her face she was in a sorrowful, brooding mood. Pa Goodwin held the tongs in his hand as if to relieve his feelings by a strict attention to the burning brands in the fireplace before him, and those same great brass knobs winked silently at him as he sat there. This was something like! This was worth talking about! Pa Goodwin got up and put the tongs carefully to one side, along with the shovel, before he shook hands solemnly with Doctor Rider.

"How's the patient?" the latter asked in a brusk tone of voice calculated to express his disapproval of any morbid or uncalled for forebodings.

"He's pretty far gone," said Pa Goodwin, shaking his head mournfully. The doctor turned without another word, merely nodding his compliments to Mrs. Goodwin, and went in to see Uncle Stebbins. He was indeed "pretty far gone," so far gone that he looked as if death had already claimed him. His head was carefully bandaged, and the whiteness of the cloth added to his ghastly appearance. Doctor Rider looked grave. He examined his patient carefully and finally said:

"No bones broken; internal injuries. Has he appeared conscious at all?"

"No, he has laid just as you see him now ever since we found him. Can't you do nothin' to save him, Dr. Rider?" Aunt Hannahran asked.

"I'll leave him some medicine. He might rally. He has a strong constitution," he answered in an evasive tone, and presently he went away, having done all that could be done. It was all in vain. Hezekiah Stebbins never spoke again, and at midnight his soul went to stand before his Maker.

Paul Stebbins was an only son and the pride of Aunt Hannahran's life, but Paul and his father had never pulled together. They were too akin in the matter of obstinacy and tenacity of purpose, and so the boy had left the farm years before to make his way in the city. He had succeeded admirably, and his coming home to his father's funeral softened the pangs of grief for his mother to a great extent. He shielded her from the too talkative, too inquisitive neighbors, who were eager to know every detail of the tragedy and to formulate plans for the benefit of the widow.

Jabez did his duty under these trying circumstances manfully, and related the incidents minutely over and over again until his mouth and throat were parched and his tongue almost refused to articulate, and he did not forget to give Carrie all the credit due her. In these troublous days Jabez was brought into sympathy with the Psalmist who cried out lest he forget Jerusalem—that city of all cities to the house of Israel, and perhaps he really felt that his tongue might cleave to the roof of his mouth unless Carrie Defarge was fully understood to be the heroine of this drama enacted on the stage of the world of Denham.

(*Concluded next week.*)

COFFEE CAKE.—One pint of flour, one egg, two tablespoons of sugar, two teaspoons of baking powder; stir with cold water into a stiff batter. Bake in a long, flat tin, and, before putting into the oven, pour over it a heaping tablespoon of butter, one and a half spoons of sugar and a little ground cinnamon. Bake in a brisk oven, but watch carefully. Break instead of cutting. It needs to go on the table hot.

DAUGHTER—Shall we invite Dr. Bigfee to the reception?

Mother—I think we'd better not, he's so absent-minded. He might charge it in the bill.

WIDOWER—It was she who drove me to drink.

Miss A. (a litle weary)—What could she have driven you to that you would have liked better?

"MAMMA," said Mabel, during a severe thunderstorm, "I fink Dod is dettin weady to light his stars."

"Why, darling?"

"Cause he's scratching matches on the sky."

"ARE you the owner of this house, Jones?"

"I was before the baby was born. I am under the impression the nurse owns it now."

Good Old Times.

It is well. as an old deacon used to say, to "count up our blessings" occasionally, and this is the way the *American Economist* compares the present condition of the farmer with the "good old times."

Despite all the talk about the hardships of the farmer, he is a king compared to his father or grandfather.

If he doubts, let him hunt up the old gentleman's day book of 40 years ago and note the prices then.

A bushel of wheat would buy three-fourths of a barrel of salt; it will now buy two barrels.

A bushel of corn would buy seven and one-half pounds of sugar; to-day it will buy 12¾ pounds.

Ten pounds of butter bought 33⅓ yards of cotton cloth then; now it purchases 48⅓ yards.

Ten pounds of cheese were worth 25 pounds of nails; the cheese now pays for 54 pounds of nails.

A pound of washed wool grown ten years before the war would buy one-fifth of a barrel of salt, three and five-sixths pounds of sugar, three and two-thirds yards of cotton cloth or ten pounds of nails. To-day his one pound of wool will pay for three-fourths of a barrel of salt, eight pounds of sugar, six and one-half yards of cotton cloth and 22 pounds of nails.

These figures are based on New York city prices. But as a matter of fact he never realized anything like those prices in his local market.

Freights were high, and when the cost of bringing produce to the New York market was deducted from New York prices for farm produce and the cost of bringing the merchandise from New York to the village store at which he traded was added to the price of what he bought, the average farmer was really not more than half as well off ten years before the war as figures would indicate.

For instance, in 1857 it cost 25½ cents to bring a bushel of wheat by the cheapest route from Chicago to New York, in 1891 it cost less than six cents.

Surrounded by these conditions, life on the farm was hard indeed. Calico and Kentucky jeans had to do for Sunday garments, and an oxcart in which to ride to church was the height of style.

Luxuries for the table were almost unknown Johnny cake and salt pork was a princely diet.

Those were days of hard times, when the farmer cradled his grain, and raked and bound it by hand.

He toiled early and late, saved and scrimped, and received less in return for a week of hardest toil than the farmer in 1892 receives for a single day's pleasant ride on a mowing machine or a self-binder.

Let us have no more of such "good old times.

ONE WAY TO KEEP BURGLARS OFF.—I had gone to spend a few days with a friend in the country, and woman-like, we sat up rather late the first evening, talking. The servants had retired to the upper regions, and just as we were about to separate, I was surprised to see my friend take up two large newspapers, with the remark: "I must go and set my burglar alarm for the night." Wondering what the papers would have to do with it, I followed her and watched her spread one on the stairs and another across the hall floor. "Now we can sleep in peace; no one could either jump or walk over those newspapers without making a noise, nor could they even attempt to fold them up without rousing the house. It may not seem a very safe trap, but when everything is still the crisp rustle of paper is quite sufficient to awaken me. I have shut up the cat, so that there can be no false alarm," she concluded, and after having walked two or three times across the newspapers I was quite satisfied that the idea was not half bad.—St. Louis Chronicle.

"THEY tell me you have learned to count, Robbie," said a pious old lady to her little grandson, who was paying her a visit out in the country.

"'Course I can," answered Robbie, "listen. One, two, three, four, five, six—"

"That's right," said the old lady, encouragingly, "go on!"

"Seven, eight, nine, ten, Jack, Queen, King!"

DISCONSOLATE AUTHOR—But you assured me the book was bound to sell.

Genial Publisher—So it was, sir, but we could not sell it after it was bound.

"WHAT is wisdom?" asked a teacher of a class of a small girl. A bright-eyed little creature arose and answered: "Information of the brain."

YOUNG FOLKS' COLUMN.

Dranma.

Written for the RURAL PRESS by MAUDE PEASLEE.

A sweet, old face, with soft rings of white hair about the wrinkled forehead, had dear grandmother Pelton.

Little Jane, her namesake, loved devotedly the "dranma" who was never too tired and ill to spare time to pet and caress the dimpled darling who alone was left from a from a family of four bright children.

Slowly rallying from the shock of parting with her dear ones, Alice Pelton lingered long that pleasant fall at the home of her mother-in-law ere joining her husband, whose business had taken him to San Francisco.

At last, however, the time had come for the separation, and "dranma's" heart was full as she watched for the last glimpse of baby Jane through the car window of the slowly-moving train.

"I wish you needn't go," she had said often to her daughter-in-law. With this heart trouble I know I can't hope for many years here, and it is hard to let Jane go."

But now the train was gone and she tried to smile cheerfully at grandpa, who led her to the easy carriage in waiting.

"It won't seem home with baby gone," she said once during the homeward drive, but it was not until they passed the graveyard where were the three little graves, made only that very summer, that the tears burst forth.

Grandpa let her cry on undisturbed, only showing his deep-felt sympathy by occasionally patting her soft, wrinkled hand, lying as for so many years now, faithfully in his.

"Bear up, dear heart," he said, finally. "Poor Alice left the most of her life and heart here with us—her three little darlings yonder. She has only little Jane now; we couldn't rob her."

"I know," she sobbed, "but it is so hard for her and for John, our only one, father, to have this deep sorrow so early in life."

"It finds him with all a young man's strength to bear it, dear wife," said the good, old man.

And so they made their journey homeward to the lonely house so lately brightened by the laughter and sunny face of "Little Jane."

"Don't let her forget me, Alice," dranma had said, and the first letter brought sweet assurance that she was held in loving remembrance.

"Jane talks of you so often," Alice wrote, "and tells papa John how happy she will be when dear dranma comes to see us. You must come soon, mother dear, while we can still enjoy her precious baby ways."

The visit was planned for the spring, but during the winter months Mrs. Pelton began to fail, and one day the sad news reached Alice in her sunny, California home that "Mother Pelton" was dead, and that the lonely old man could not come yet so far from her last resting place.

To soften the news for Jane she was only told that dranma had gone to see Bessie, Tom and Frank, the brothers and sister she yet remembered and talked of with her still sorrowing mother.

"They wanted to see dranma so much she had to go darling," said Alice through her fast-falling tears.

"But I want her, too," said baby Jane, refusing to be comforted.

Out on their daily walk the following Sunday, the little one picked some yellow buttercups to be sent to "dranma, because she said they were like Jane's hair," explained the baby, all too soon tired from the slight exertion.

Alice Pelton sent them in a letter the next day to grandpa, who sat two thousand miles away, day after day, where he could see the low grave that held all earthly joy for him.

"Lay them above her breast, father," the letter read, "and whisper 'from baby Jane.' I know she'll somehow hear."

While the letter was yet on its way, Jane sickened, and despite all earthly skill and heart-wrung prayers to save this one last treasure, the little life-light flickered out.

Conscious of but little pain and with no horror of the fast-approaching change, she spoke often of "dranma," and asked if she was not going to see her now.

With hot, dry eyes, the mother whispered "yes," and choked bravely back the sobs that might have frightened the child and shaken the sweet peace of her unquestioning faith.

Late that night the faint breath died out, never more to return, and at that very moment a lonely, sorrow-stricken, old man laid a tiny bunch of buttercups on "dranma's" grave, whispering, brokenly, "from baby Jane."

Twin Sisters and Twin Brothers.

Written for the RURAL PRESS by DUANE MORLEY.

An old man going along a hard, gravelly road toward a distant city was surprised by a clattering tumult behind him. The sky was clear, the air calm, and all nature in a repose sweet and peaceful; and thereby the old man's mind was much affected, becoming tranquil as nature herself was. Now, when this clattering tumult broke rudely in upon the old man's tranquil mind, he quickly turned his head and beheld coming at a fearful pace a gigantic horse geared to an immense cart, such as merchants send out into country places well laden. This, too, was laden with much valuable merchandise.

"Now, now," said the man to himself as he beheld the spectacle, "this frightened horse and these endangered goods must be saved, and behold, there is no one but myself to accomplish it."

Nature had made the man both brave and wise, and although his natural strength was much abated, he instantly started to arrest the frantic horse and save the goods from harm. By great good fortune, which means as well skill and tact, he managed to catch one of the guiding reins, which, as the horse ran, whirled as vigorously about as a Jehu's whiplash. This, having caught it, he held on to until until the frightened beast veered into an obstacle by the roadside, thus bringing the cart with its contents to a dead halt.

In the encounter the old man was thrown down, his limbs being bruised by the contact with the hard earth. When he arose, he found himself so shaken that he could not pursue his journey, and so he was minded to turn about and retrace his steps. Before doing so, however, he righted the gearing of the horse, which had become much displaced, and with the guiding reins, firmly tethered the horse to a tree. Tremblingly, and with a whitened face—so great had been the shock—he made his way to his humble abode, which had once been a woodman's hut, standing upon a hill by the borders of a little wood. His strength was so much gone that by great exertion only did he crawl in and lie down upon his couch—a very primitive one, made of the dressed skins of wild beasts which had once roamed the mountains. The old man's situation was lonely and his condition desperate—so much so, that lying upon his rude couch, his muscles bruised and his flesh swollen, he half gave way to despair.

But the comforter came to him, as it comes to every good man, saying: "Lo! I am with you always."

The poor man knew the visitant, because it had been there oft before to comfort and revive, and so he lay upon his couch and slept, while the sun streamed in upon him through the wide-open door. As he slept two maidens—one very fair, the other very homely of face—appeared to him, standing side by side near his couch and looking upon him with expressions of anxiety and devotion. So fixed did their gaze become, as it seemed to him in his dream, that he awoke, looked all about him, but saw nothing. Overcome by a languorous perfume which pervaded the hut, he again slept. This time the two maidens stole in noiselessly, casting but a glance toward him.

Then the homely one kindled a fire at the humble hearth and brewed a liniment over it, gently bathing his bruises, while the handsome one seated herself upon a high bench in the corner of the room and sang to him as softly as the breathing of the night wind, which had every night sung him to sleep. The dream which had continued with the old man was a reality, for, touching a very tender place, his nurse awoke him and he perceived their presence. He half arose upon his couch and said to the maidens, one of whom was surprisingly lovely, and the other as surprisingly homely: "Who are you, and what is your mission?"

The homely one immediately replied: "My sister, the handsome, soothes by song, and I by humbler service. Our father fell from a cliff, there where the mountains pierce the clouds, and when mother died she admonished us of this, our duty; so forth we go, and wherever there is misery and sorrow, there we comfort and bring joy."

The old man perceived that it was of God, and so he rested content, while the homely maiden annointed his wounds and brewed him a broth of kid's flesh, his supply not yet being exhausted. While the homely one toiled the handsome one sang. Handsome and Homely were their names, and for a time their names were exactly appropriate. It was the old man's delight to gaze upon them, and yet he could not steadily, for Homely was so homely, and Handsome so handsome.

A dark cloud rested upon the brow of Homely; her voice was coarse and her motions graceless and irregular, while Handsome glided about like a princess and sang divinely as an angel, the while her face shone with its wonderful beauty. The old man's hurts were more severe than was first supposed, and he was prostrated for a long time. Then Homely had finally to go to the camps of the mountaineers for more goat's flesh, and into the lower valleys for meal of the maize.

And then, angelic as Handsome really was, she stooped from her perch of songstress to soothe by humbler service also. Someway, the more menial occupation, which was distasteful to her, but which she did largely from a sense of duty, divested her of a portion of her rare loveliness. At least, she was so humanized by it that the grateful old man could look upon her steadily.

Then, again, Homely, who had ever called the poor old man father, and wrought for him affectionately, and not altogether from a sense of duty, grew lovely as the days advanced. Her motions became graceful; her dark face changed to a bright one; her eyes shone with a tender light, and when she arrived from her long trips after meal and go ts flesh, so radiant was she that the old man often called her by her sister's name, Handsome Finally—Handsome grown plain by serving instead of singing, but yet with the new light of gentle benevolence shining from her eyes—the old man said: "You sisters must be twins, so nearly do you resemble each other."

"Truly we are," was the reply of one of them; both born the same hour."

"And so your lot in life should be similar," continued the old man, who now spoke to them as a father would address his children, which was with the utmost affection. "Your prospects and fortune should both be identical." While he was yet speaking a knock was heard at the outer gate and a voice asking:

"Good friends, will you permit us to enter?"

"Certainly!" exclaimed the old man, who was so far recovered that he arose from his couch and stood by the doorway of his humble hut.

No sooner was the permission given than in came two fair and favorable youths, attired in velvet garments, with gold facings. Upon the breast of each glittered a silver star, which the king of their country had adorned them with, for their fair and honorable dealing with men. They were twin brothers and wealthy merchants from the interior.

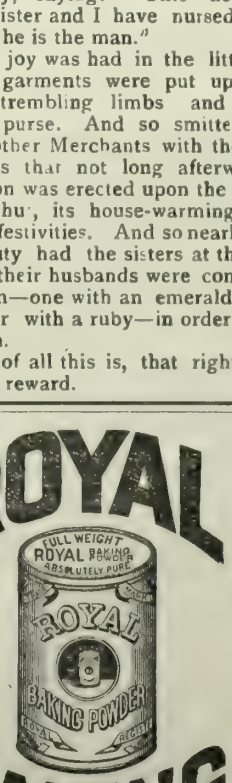
"Months before that an agent of theirs," so they said, "had unfortunately met with an accident, his horse escaping from him. Diligent search revealed the fact that some kind hand had rescued it and firmly tethered it to a tree."

Then Homely, who was no longer homely, spoke quickly, saying: "This dear old man, whom sister and I have nursed these many weeks, he is the man."

Then great joy was had in the little hut; strong, soft garments were put upon the greybeard's trembling limbs and much money in his purse. And so smitten were the Twin Brother Merchants with the Twin Sister Nurses that not long afterward a grand mansion was erected upon the site of the humble hut, its house-warming being the wedding festivities. And so nearly alike in their beauty had the sisters at this time become that their husbands were compelled to adorn them—one with an emerald necklace, the other with a ruby—in order to distinguish them.

The moral of all this is, that right-doing brings it own reward.

ROYAL



BAKING POWDER

Absolutely Pure.

A cream of tartar baking powder Highest of all in leavening strength.—*Latest U. S. Government Food Report.*

The State Fair.

(Continued from page 256.)

PLYMOUTH ROCKS.

Best cock and hen—T. Waite, Perkins, $3; best cockerel and pullet—E. H. Freeman, $3; best breeding pen, to consist of one male and four females (all white)—E. H. Freeman, $3; best breeding pen, to consist of one male and four females—T. Waite, $10; best cock and hen, white—E. H. Freeman, $3.

BLACK LEGHORNS.

Best cock and hen—C. M. French, Stockton, $3; best breeding pen, to consist of one male and four females—C. M. French, Stockton, $5.

BROWN LEGHORNS.

Best cock and hen—E. H. Freeman, $3; best cockerel and pullet—E. H. Freeman, $3; best breeding pen, to consist of one male and four females—E. H. Freeman, $5.

WHITE LEGHORNS.

Best cock and hen—E. H. Freeman, $3; best cockerel and pullet—E. H. Freeman, $3; best breeding pen, to consist of one male and four females—E. H. Freeman, $10.

ANDALUSIANS.

Best cock and hen—G. M. French, $3; best cockerel and pullet—G. M. French, $3; best breeding pen, to consist of one male and four females—G. M. French, $5.

WHITE-FACED BLACK SPANISH.

Best cock and hen—T. Waite, $3; best cockerel and pullet—T. Waite, $3; best breeding pen, to consist of one male and four females—T. Waite, $5.

WYANDOTTES.

Best cock and hen, silver—T. Waite, $3; best cock and hen, golden—E. H. Freeman, $3; best cockerel and pullet—E. H. Freeman, $3; best breeding pen, to consist of one male and four females, silver—E. H. Freeman, $10; best breeding pen, golden—$10.

POLISH.

Best cock and hen—T. Waite, $3; best breeding pen, to consist of one male and four females—T. Waite, $5.

WHITE MINORCAS.

Best cock and hen—G. M. French, $3; best cockerel and pullet—G. M. French, $3; best breeding pen, to consist of one male and four females—G. M. French, $5.

BLACK MINORCAS.

Best cock and hen—G. M. French, $3; best cockerel and pullet—G. M. French, $3; best breeding pen, to consist of one male and four females—G. M. French, $5.

PEKIN BANTAMS.

Best cock and hen—E. H. Freeman, $3; best breeding pen, to consist of one male and four females—E. H. Freeman, $5.

SEABRIGHT BANTAMS.

Best cock and hen—E. H. Freeman, $3; best breeding pen, to consist of one male and four females—E. H. Freeman, $5.

BLACK BREASTED RED GAME BANTAMS.

Best cock and hen—E. H. Freeman, $3; best breeding pen, to consist of one male and four females—E. H. Freeman, $5.

TURKEYS.

Best pair bronze turkeys—E. Hart, Clements, $10; second best—T. Waite, Perkins, $5.

GEESE.

Best pair Toulouse geese—T. Waite, Perkins, $5; second best—G. M. French, Stockton, $3.

DUCKS.

Best pair Rouen ducks—T. Waite, $5; best pair Pekin ducks—T. Waite, $5.

GUINEA FOWLS.

Best pair Guinea fowls—W. A. French, $5; chickens, special—Frizzles—best cock and hen—E. H. Freeman, $3; English bantams, one pair—C. W. Eldred, $3; special Pea fowls—W. A. French, $3.

Pavilion Awards.

SECOND DEPARTMENT—MACHINERY, IMPLEMENTS, ETC.

Best apparatus for raising water for irrigating or mining purposes, $20; best well pump, $10, Stewart, Trowbridge & Dykes, Berkeley.

Best water wheel California manufacture, $15, and best quartz crusher California manufacture, $15, Pelton Water Wheel Co., San Francisco.

Best steam engine California manufacture, $30, W. H. Orman, San Francisco.

Best gas engine, $30, Daniel Best, San Leandro.

Best portable hand machine for manufacturing field or garden fence, $10, Stanton, Thomson & Co., Sacramento.

Best spray pump for orchards, $25, D. C. Crummey, San Jose.

Best light portable prospecting mill for reducing quartz, $15, F. A. Huntington, San Francisco.

Best machinery for securing gold from quartz, California manufacture, $25; best concentrator, $15; Stephen McShaw, San Francisco.

Best display of machinery from one shop, $50, Daniel Best, San Leandro.

Best display of agricultural machinery by any one house, California manufacture, $50, Benicia Agricultural Works.

Best thrashing machine, $30; best cider mill and press, diploma; best horse hay rake, $5; best power corn-sheller, diploma; best hand corn-sheller, diploma; best lawn mower, diploma; Baker & Hamilton, Sacramento.

Best hay and straw cutter, diploma, G. G. Wickson & Co., San Francisco.

Best hay press, $20, J. F. Hill, Sacramento.

Best sweep horsepower, California manufacture, $10, F. W. Krogh, San Francisco.

Best gopher trap, diploma; best vegetable cutter, diploma; best lawn sprinkler, diploma; Schaw, Ingram, Batcher & Co., Sacramento.

Best combined clod crusher, harrow pulverizer and leveler, silver medal; best cultivator, $10; H. C. Shaw, Stockton.

Best ramie-cleaning machine, $20, W. H. Murray, San Francisco.

Best wheat drill, $10; best reaping machine, $5; best potato digger, diploma; best one-horse cultivator, $5; Baker & Hamilton, Sacramento.

Best grain broadcast sowing machine, $10; best self-binding harvester, $10; best hay-pitching machine, $10; best harrow, diploma; Stanton, Thomson & Co., Sacramento.

Best mowing machine, $5, Amos Whiteley & Co., San Francisco.

Best horse hoe, diploma, G. G. Wickson & Co., San Francisco.

Best field roller and crusher, $10, Wm. Gutenberger, Sacramento.

Best fanning-mill, diploma, Fereva & Chivell, Butte county.

Best refrigerator, diploma, Louis Schaffer, Oakland.

Best grain-cleaning attachment for combined harvesters, $10, Matteson & Williamson, Stockton.

Best windmill, $25, Crane & Co., San Francisco.

Best grain cleaner, independent, $10, Daniel Best, San Leandro.

Best platform scales, silver medal, Schaw, Ingram, Batcher & Co., Sacramento.

Best washing machine, $5, Humboldt Washing Machine Co., Rohnerville.

Best display of haying and harvesting tools, $10; Baker & Hamilton, Sacramento.

Best garden seed drill, diploma; best display of dairy machinery, $20; best cream separator, silver medal; best cheese vat with heater attached, $5; best churn, $5; best butter-worker, diploma; best clingstone pitter, $5, and best fruit-grader, $5; G. G. Wickson & Co., San Francisco.

Best pruning shears, $2.50; J. Cartwright, Malago, Fresno county.

Best wine and cider press, diploma and $10; F. W. Krogh, San Francisco.

Best excavating scraper, $10; best road scraper, $10; Western Wheeled Scraper Company, Sacramento.

Best cabbage-cutter, $2; best sausage-meat cutter and stuffer, $2; best clothes-wringer, diploma; best pruning-knife, $2.50; Schaw, Ingram, Butcher & Co., Sacramento.

Best sulky plow, $10; best sod plow, $5; best plow for all purposes, $5; Benecia Agricultural Works, Benecia.

Best cast-iron plow, $5; best side-hill plow, $5; Baker & Hamilton, Sacramento.

Best gang plow, $25; best stubble plow, $5; best dynamometer, $5; Stanton, Thompson & Co., Sacramento.

Best steel plow, $5; best one-horse plow, $5; best chilled plow, $5; Schaw, Ingram, Batcher & Co., Sacramento.

Best vineyard plow, $5; G. G. Wickson & Co., San Francisco.

Best track sulky, $5; best carriage or cab for children, diploma; Studebaker Manufacturing Company, per T. A. Lauder, Sacramento.

Best two-seated open wagon, $10; Benecia Agricultural Works, Benecia.

Best training cart, $10; Baker & Hamilton, Sacramento.

Best closed family carriage, diploma and $20; best ladies' phaeton, $10; best open buggy, $10; best business wagon, $10; A. Meister, Sacramento.

Best farm wagon for general purposes, $15; Studebaker Bros.

Best top buggy, diploma and $10; best single-seat trotting wagon, $10; best spring market wagon, $10; best pleasure cart, $10; J. F. Hill, Sacramento.

Best open family carriage, diploma and $20; breaking cart, long shafts, $10; M. Kestler, Sacramento.

Best hydraulic giant, diploma; best hydraulic water-gates, $5; best patent wrought-iron, lead-lined couplings, $2.50; Joshua Hendy Machine Works, San Francisco.

Best wire-ropeway system for transportation of ores, etc., $5; Vulcan Iron Works, San Francisco.

Best system of transmission of power by electricity, silver medal; Electrical Engineering Company, San Francisco.

Best model for fruit truck, diploma; Smith McGarvin, San Jose.

Best magnesia sectional covering for steam pipes for boilers, etc., $5; A. B. Johnson & Co., San Francisco.

Best steel-tilting windmill tower, diploma; Aermotor Company, Sacramento.

Best ore-feeder for quartzmill, California manufacture, $5; F. A. Huntington, Sacramento.

Best concentrator for ores of all kinds, diploma; G. E. Woodbury, San Francisco.

Best hay tedder, $5; Amos Whiteley & Co., San Francisco.

Best hay wagon, $5; M. Kestler, Sacramento.

Best hose-coupling, diploma; W. H. Murray, San Francisco.

Best grape crusher, $5; best tire upsetter and welding machine, $2.50; Toulouse & Delorieux, San Francisco.

Best water filters, $5; Davis Water Filter Company, San Francisco.

Best disc harrow, $5; Stanton, Thomson & Co., Sacramento.

Best spading harrow, $5; H. C. Shaw, Stockton.

Best flushers for sewers, silver medal; Gravity Flushing Company, Alameda.

Best patent ventilator for refrigerators, $5; Louis Schaffer, Oakland.

A model sulphur house and car for fruit, exhibited by C. Ireland, Woodland, is given special mention.

Third Department—Textile Fabrics and Materials From Which They are Made.

CLASS I—CLOTHING AND KINDRED TEXTURES.

Best display of dry goods, $20; Weinstock, Lubin & Company, Sacramento.

Best exhibit of carpets and rugs, $20; best 15 yards of woolen carpet, silver medal; best Turkish rug, $5; best exhibit of window curtains, cornices and silver trimmings, silver medal, John Breuner, Sacramento.

Best display of fancy goods, $20; best display of bolting cloth, silver medal; B. Wilson & Co., Sacramento.

Best ten yards ramie cloth, California manufacture, $5; best ten yards dressed ramie, California manufacture, $5; best ten yards rag carpet, $5; W. H. Murray, San Francisco.

Best collection of furs, not less than six pieces, $10; B. Wilson & Co., Sacramento.

Best exhibit of men's hats and caps, silver medal; best silk hat, diploma; best soft hat, diploma; D. H Quinn, Sacramento.

Best display of woolen goods by one factory, California manufacture, $25; J. A. Robinson, Merced Mills.

Best double carpet coverlet, $5; John Breuner, Sacramento.

CLASS II—NEEDLE, SHELL AND WAX WORK.

Best display of children's clothing, California made, $15; Mrs. Wm. East Chico.

Best embroidered dressing gown, $5; Mrs. Bryant San Francisco.

Best embroidered children clothes, Mrs. East, Chico.

Best display of ladies' underwear, $10; Mrs. Patrick, Sacramento.

Best embroidered table cover, four ends, $5; Miss R. Flint, Sacramento.

Best embroidered table scarf, two ends, $3; Mrs, Bryant, San Francisco.

Best embroidered ottoman cover, $3; best embroidered chair seat and back, $5; best embroidered sofa pillow and cushion, $5; best silk embroidery on flannel, $3; best display of Kensington embroidery with floss or satin, $5; best embroideries, $3; best crochet shawl, $3; best lounge afghan, $5; best carriage afghan $5; best embroidered handkerchief, $3; best Kensington embroidery, $5; best hammered brass, $5; best embroidered on bolting cloth, $6; Mrs. Wm. East, Chico.

Best embroidered fire-screen, $5; best embroidered bedspread, $5; best embroidered necktie case, $3; best painted table scarf, two ends, $2; best painted wall banner, $3; best painted panel, $3; best water painting, $5; best toilet set embroidered in silk, not less than three pieces, $6; best Queen Anne embroidery, $5; Mrs. R. E. Chappie, Sacramento.

Best embroidered tea cloth, $5; Miss G. Bartlett, Oakland.

Best embroidered table cloth, $3; Miss Flint, Sacramento.

Best embroidered point lace handkerchief, $2; best braiding by hand, $2; best fancy braiding by hand, $2; best bead work by hand, $1; Mrs. Phoebe Brown, Sacramento.

Best embroidered piano scarf, two ends, $3; best elegant and finest display of silk embroidery on linen, $10; best embroidered sideboard covers, $3; best embroidered table runner, $3; best embroidered piano drape on India silk, $3; best embroidered portiers, $5; best applique work, $2; best embroidery on plush, $5; best embroidered glove case, $3; best combination of tinting and embroidery, $5; best, largest and handsomest display of articles made wholly by exhibitor, $20, Mrs. Bryant, San Francisco.

Best alliance embroidery, $3; best renaissance embroidery in rape silk, $3; best, largest and finest display of Turkish embroidery, $3; best French embroidery, $5; best embroidered toilet set, not less than three pieces; best Danish drawn work, $3; best painted toilet set, not less than five pieces, $10; best crochet nectie, $1; best set of embroidered napkins, $5; Miss Schubert, San Francisco.

Best embroidered center piece and doylies, $3; best crochet case, $2; best painted lambrequin, $5; best display of decorative painting on wood, plush or silk, $5. best display of decorative painting on velvet, glass or birch bark, $5; Miss Ough, Sacramento.

Best, largest and finest display of outline embroidery, $1; best and finest display of lace made by hand, not less than five pieces; best darned net, not less than three pieces; best macrame lace work, $2; best modeling in clay or putty, $3; Mrs. E. J. Clark, Sacramento.

Best hand sewing, not less than three pieces, $2; best child's afghan, $2; best patchwork quilt, $3; best raised wool work, $2; best hearth rug, hand made, $2; best display of paper flowers, $1; best crochet purse, $2; best tatting, not less than three yards, $2; Mrs. J. L. Small, Ione.

Best crochet bed pread, $5; Mrs. Belle Muddox.

Best knit bedspread, $5; Mrs. R. Kunigh, Sacramento.

Best crazy patchwork quilt, $5; Mrs. Perrin Stanton, Sacramento.

Best surface plush painting, $3; best laid plush painting, $5; best display of decorative painting on bolting cloth, linen, etc., $5; Mrs. G. D. Stewart, Sacramento.

Best painting on ivorine, not less than three pieces, $5; Miss Pearl Waggoner, Sacramento.

Best porcelain painting, not less than 12 pieces, $10; Miss Joey Richardson, Sacramento.

Best pair of print wool stockings, $3; Mrs. S. J. Conrad.

Best pair of Spanish hammock napkins or doylies, $5; Miss Mabel Steinman, Sacramento.

JUVENILE DEPARTMENT.

Best and most tastily made calico dress, etc., $5; Beryl Patrick, Sacramento.

Best hand-sewing, etc., silver medal; Marion Derby, Shasta county.

Best crochet work, napkin rings; Lizzie Purrington, Santa Rosa.

Best needlework picture, $5; Dollie Gribel, Lakeport.

Best pen drawing, napkin ring; Arthur Atkinson, Sacramento.

Best penmanship, napkin ring; Marion Derby, Shasta county,

The committee recommend that Kitty Gardener, of Sacramento, ten years of age, be awarded a special premium for exhibiting 14 pieces of fine work not included in the list for premiums in this department. In some respects the exhibits equal similar displays made by adults.

CLASS III—PRINTING, LITHOGRAPHING, ETC.

Best specimen of Lithographic printing—silver medal; best specimen of lithography, silver medal; A. D. Jenny, Sacramento.

Fourth Department—Mechanical Products.

CLASS I—MANUFACTURERS OF LEATHER, PAPER AND RUBBER.

Best exhibits of trunks, valises and bags—$10 and silver medal, J. Longshore, Sacramento.

Best display of rubber hose and belting—silver medal; best display of cordage—silver medal, Shaw, Ingram, Batcher & Co., Sacramento.

Best set of double harness, silver medal and $10; best set single harness, $10; best display of Mexican saddles, $5; best display of leather, silver medal; best display of saddles and bridles, silver medal; best display of saddle-trees, diploma; best display of shoe lasts, pegs and lasting machine, $5—A. A. Van Voorhies & Co., Sacramento.

Best display of Angora goat robes, $10—C. P. Bailey, San Jose.

Best pair of dress boots, $5; best pair of heavy boots, $3; best pair of gentlemen's dress shoes, $5; best pair of Congress gaiters, $5; best pair of ladies' slippers, $3; best pair ladies' gaiters, $3—P. F. Nolan & Sons, Sacramento.

Best display of paper, two tons; W. H. Murray, San Francisco.

CLASS II—WORKED METALS.

Best display of lamps, diploma; best display of platedware, $10—Joseph Thieben Crockery Company.

Best display of wire rope, silver medal—Washburn & Moen Manufacturing Company, San Francisco.

Best display of modern building hardware, $20; best display of blacksmithing tools, diploma and $10; best display of general hardware, $20; best display of iron and steel, Pacific coast make, silver medal; best axles, California make, silver medal; best barbed-wire fencing, silver medal and $5; best display of mechanical tools, $20; best horseshoes, machine made, silver medal; best display of table cutlery, silver medal; best display of pocket cutlery, $5; best circular saws, $5; best display of files, $5; best exhibit of antifriction metal, diploma; best exhibit of shot, diploma; best display of butchers' supplies and goods, diploma and $10—Shaw, Ingram, Batcher & Co., Sacramento.

Best display of saddler's hardware, $10; A. A. Van Voorhies & Co., Sacramento.

Best mill saws, $5; N. W. Spaulding Saw Company, San Francisco.

Best horseshoes, hand made, silver medal; J. P. Browne, Santa Ana.

Best display of wire goods, diploma and $5; Washburn & Moen Manufacturing Company, San Francisco.

CLASS III—STOVES, CASTINGS, ETC.

Best ornamented statuary, $5; best ornamented fruit and flower stand, $5; best assortment Japanese ware, $10; best parlor grate, $3—Joseph Thieben Crockery Co., Sacramento; best gas stove, $5—Capital Gas Co., Sacramento.

CLASS IV—MUSICAL INSTRUMENTS—CALIFORNIA MANUFACTURE.

Best general display of musical instruments, silver medal and $20—M L. Hammer, Sacramento.

CLASS V—FURNITURE.

Best wooden mantel, $5—Joseph Thieben Crockery Co., Sacramento; best display of furniture, diploma and $20; best set of parlor furniture, $20; best set of bedroom furniture, $10; best set of library furniture, $10; best set of office furniture, $10; best set of school furniture, $10; best folding bed, diploma and $10; best sofa, $10; best lounge, $5; best extension table, $5; best set of parlor chairs, $10; best dressing bureau, $10; best center-table, $5; best pair of side tables, $5; best display of upholstery, $10; best spring mattress, $5; best hair mattress, $5; best wool mattress, $3; best wardrobe, $10; best sick chair and couch, $5; best set dining-room furniture, $10; best display of willow furniture, $10—John Breuner, Sacramento; best display of California woods, silver medal—W. H. Chaffee, Mariposa county.

CLASS VI—WOODENWARE.

Best display of window shades, $5, John Breuner, Sacramento; best display of split-wood baskets, $3, Dr. Thomas Cogswell, San Diego; best display of woodenware, $10, W. F. Barnes & Co.; best display turning-lathe work, $5. Wm. Clark, Sacramento; best display of cedarware, $5; best display pineware, $5; best display of oakware, $5; best display of osier, $5; best exhibition of broomcorn brooms, $5; best assortment of coopersware, $10; best display of willoware, $5—A. S. Hopkins Company, Sacramento.

CLASS VII—ELECTRICAL APPLIANCES, PHILOSOPHICAL, SPORTING, SURGICAL, DENTAL, DRAWING, SURVEYING LEVELING INSTRUMENTS AND APPARATUS, ETC., OF FINE WORKMANSHIP, EXHIBITED BY MAKER.

Best double-barrel shotgun, $5; best breech-loading shotgun, 5; best sporting rifle, $5; best gamebag, $3—N. M. Kimball & Co., San Francisco.

Best exhibition of electrical appliances, consisting of dynamos, motors, arc and incandescent lighting, etc., $100; best electrical generator and dynamo, $20; best voltaic arc lamp, $10; best incandescent lamp, $10—Electrical Engineering Co., San Francisco.

Best level, diploma; best balance, diploma; best mining and blasting powder, silver medal; best sporting powder, diploma—Schaw, Ingram, Batcher & Co., Sacramento.

Best bicycle, silver medal—E. W. Melvin, Sacramento.

CLASS IX—STONEWARE, BRICKS, TILES, CROCKERY, GLASS, ETC.

Best display of table and bar glassware, diploma and $10; best display of queensware, $5; best flooring, $5; Joseph Thieben Crockery Co., Sacramento.

Best hydraulic cement, diploma, J. W. Grace, San Francisco.

Best general display of art-stained glass for architectural work, silver medal; best embossed and bent glass, diploma; Wm. Schroeder, San Francisco.

Best stoneware, diploma; best sample of drain tile, $5; best sewer pipe, $5; best roofing tile, $5; best display of terra cotta, $10; best pressed bricks, diploma; best pottery, various kinds, silver medal; best display of stoneware, $10; best water-pipe, diploma; best firebricks, $3; Muddox & Co. Sacramento.

Best exhibit of slate, diploma and $10, W. H. Murray, San Francisco.

Best artificial stone and concrete, diploma, Norting & Byling, Sacramento.

CLASS X—MINERALS, FOSSILS, BIRDS, FISHES, ETC.

Best cabinets of agates, crystallized fossils and crystallized quartz, $25, Alfred Tregidgo, Grass Valley.

Best collection illustrating the ornithology of California, silver medal, C. W. Tozer, Sacramento.

Best suite of useful minerals of California, including coals of California, iron ores of California, marbles of California, sandstones of California, marls of California, peats of California, soils of California, saltwaters of California, minerals of California, potters' clay of California, fireclay of Cali-

fornia, burr stones of California, gypsum of California; Alex. Keller, Auburn, $20.

Best suite of the vegetable kingdom, including the woods and most useful plants and native grasses of California, silver medal, Mrs. F. Perrington, Santa Rosa.

Best collection of minerals illustrating the geology of California, silver medal, R. Cosner, Colusa.

CLASS XI—MARBLE AND GRANITE WORK.

Best collection of polish of marble work, at least six pieces, $30, John Breuner, Sacramento.

Best collection of polish of California granite work, six pieces, $30, Sacramento county exhibit.

CLASS XII—INCUBATORS.

For the best display of incubators in operation, $25; for the incubator hatching the greatest number of chicks during the show, $10; for the best display of brooders, $10; J. W. Atkinson, San Jose.

Fifth Department.

CLASS I—FARM PRODUCTS.

Most extensive, varied and perfect display of farm products grown by one person, Mrs. F. Perrington, Santa Rosa, $100; second best, Mrs. J. P. Odbert, Sacramento, $50.

CLASS II—SILK, COTTON AND TOBACCO.

Best display California manufactured tobacco, Love & Connolly, San Francisco, silver medal; best California tobacco in leaf, same exhibitor, $5.

Best grown cotton, $20; best display of silks, $15; best thrown and twisted silk in the gum and boiled off, made in California, $5; best machine spool silk, $5; best knitting spool silk, $5; best spool embroidery, $5; W. H. Murray, San Francisco.

Best cocoons, eggs and moths, $5, Mrs. F. Perrington, Santa Rosa.

CLASS III—FLOUR AND GRAIN.

Best sample Australian wheat, $10, T. B. Hull, Yuba City.

Best white Chili wheat, $10, C. A. Hull, Union House.

Best sample Proper wheat, $10, R. F. Moulton, Colusa.

Best white Club wheat, $10, T. B. Hull, Yuba City.

Best Sonora wheat, $10, Joseph Sims, Union House.

Best barley, $5, T. B. Hull, Yuba City.

Best Chevalier barley, $5, Robert Cosner, Colusa.

Best oats, $5; best buckwheat, 5; best yellow corn, $5, Mrs. F. Perrington, Santa Rosa.

Best Early corn, $5, C. A. Hull, Union House.

Best bakers' flour, $10, R. Nethereatt, Woodland.

Best family flour, $10, Colusa Mill Company.

CLASS IV—VEGETABLES, ROOTS, ETC.

Best six marrow squashes, $3, L. F. Moulton, Colusa.

Best six Hubbard squashes, $3, J. H. Hamilton, Sacramento.

Best six crooked-neck squashes, $3; best three watermelons, $3, L. F. Moulton, Colusa.

Best and largest pumpkins, $3, Mrs. F. Perrington, Santa Rosa.

Best dozen green sweet corn, $3; best six cucumbers, $2; best half peck Lima beans, in pod, $3; best half peck white beans, dried, $3; best half peck kidney bush beans, in pod, $3; best half peck pole bush beans, $2; best filled peas, dried, $2; best one-half peck garden peas, dried, $2; best castor-oil beans, $3; best and greatest variety peas, dry, $3; best table collection of vegetables, $20; F. Gabrielle, Sacramento.

CLASS V—FLOWERS.

Best and largest collection of flowering plants in bloom, $20; best collection of ornamental foliage plants, $20; best display of cut flowers, to be kept fresh during the exhibition by replacing, $20; best collection of new and rare plants, $15; best and most varied exhibit of named varieties of dahlias, $10; best collection of roses in bloom, $10; best collection of fuchias in bloom, $10; best collection of tuberoses, $10; best collection of pinks, $10; best collection of ferns, $15; best display of bouquets, $10; best collection of plants suitable for greenhouse, conservatory and window culture, $15; best display of hanging baskets containing plants, $10; best display of cut-flower designs, to be made on each Thursday evening of the Fair, $50; Bell Conservatory Company, Sacramento.

Best display of coleus, distinct varieties, $15; Mrs. J. D. Odbert, Sacramento.

CLASS IX—MISCELLANEOUS.

Best hock squashes, $2.50; W. D. Hack, Freeport.

Best royal Dutch cocoa, $5; best catsups, diploma; best Canada sap maple syrup, silver medal; best soups, $2.50; Williams, Brown & Co., San Francisco.

Best Scotch millet, $1; best nest-egg gourds, $1; best pomegranate, $1; J. H. Hamilton, Sacramento.

Best toboggan maple syrup, $2.50; C. B. Jennings, Sacramento.

Best condiment stock food, diploma; Charles Kertell, San Francisco.

Best sack of Hardy wheat, $1; best sack of Genesee wheat, $1; best Pride of Butte wheat, $1; best sack Neapaul barley, $1; T. B. Hull, Yuba City.

Best ramie seed, $1; W. H. Murray, San Francisco.

Best bamboo fishing poles, $1; best pomegranates, $1; best bitter almonds, $1; best hardshell almonds, $1; G. G. Gilbert, Sacramento.

Best evergreen blackberries, $1; best French breakfast radishes, best cayenne pepper on tree, $1; best Hixox peas, $1; Joe Tash, Sacramento.

Best four jars cucumbers, $1; best chow chow, $1; best pickles, Libby or Chili sauce, $1; best mustard pickles sauce, $1; best kohlrabi, $1; Mrs. J. P. Odbert, Sacramento.

Best nuthouse, $2; Bell Muddox, Sacramento.

Best Japanese persimmons, $1; best Portegue squash, $1; J. H. Hamilton, Sacramento.

Best pickled peppers, $1; best cucumber pickles, $1; Mary Kerr, Elk Grove.

Best sample Australian wheat, $1; best sample Club wheat, $1; best sample Proper wheat, $1; best sample Russian oats, $1; best sample of barley, $1; J. A. Robinson, Merced.

Best 42 varieties garden seeds, $2.50; J. P. Odbert, Sacramento.

Best display of native grasses, diploma; Della Krull, Sacramento.

Best collection of rare Cacti plants, $2.50; Herman Fisher.

Best sweet pumpkins, $1; Joe Tash, Sacramento.

Best cornmeal, $2.50; best graham flour, diploma; Colusa Flouring Mill, Colusa.

Best broomcorn in sheaf, $2; best yellow corn in the ear, $1; best white corn in ear, $1; J. A. Robinson, Merced.

CLASS VI—CHEESE.

Best and largest display of cheese, diploma and $15; best cheese one year old and over, $15; A. J. Rider, Galt.

Best cheese under one year, Dr. Harvey, Galt.

CLASS VII—CURED MEATS, BUTTER, BREAD, ETC.

Best domestic rye bread, $5; Mrs. S. J. Conrad, Sacramento.

Best four loaves baker's bread, $3; best graham bread, $5; Mrs. J. P. Odbert.

Best soda biscuit, $2; best brown bread, domestic, $5; best display of domestic bread, $10, best butter in rolls, 40 pounds, $20; best butter in firkin, 40 pounds, $15; Mrs. C. A. Hull, Union House.

Best display of home-cured ham, bacon and lard, with formula, etc., F. Perrington, Santa Rosa.

Best domestic white bread, $5; J. M. Davies, Florin.

Best biscuit and domestic corn bread, $5; Belle Muddox, Sacramento.

CLASS VIII—SUGAR, SYRUP, EXTRACTS, CONFECTIONS AND CANDY.

Best 100 pounds sugar from cane, $20; W. H. Murray, San Francisco.

Best display of confectionery, $10; best general varieties of candy made in the hall during the exhibition, diploma and $10; J. A. Moynihan, Sacramento.

Best 100 pounds sugar from sugar beets, $20; best five gallons of syrup from either of the above, $10; W. B. Ewer, San Francisco.

Gold Medals.

For the most meritorious exhibition in the several departments of the pavilion, the Society's gold medals have been awarded to the following:

Second Department, machinery, implements, etc., Baker & Hamilton.

Third Department, textile fabrics and materials from which they are made, Mrs. William East, Chico.

Fourth Department, mechanical products, John Breuner, Sacramento.

Fifth Department, agricultural products, Manhattan Food Co.

Sixth Department, fruits, Mrs. J. P. Odbert.

Seventh Department, fine arts, Julius Ludovichi, San Francisco.

The grand gold medal for the very best exhibit in the pavilion will be awarded to-night.

To W. H. M Carthy, of San Francisco, for most meritorious exhibit of standard-bred horses—Dexter Prince and five colts.

To Denman & McNear, Petaluma, for horses other than standard-bred—Clydesdales.

To A. & A. Heilbron, Sacramento, for livestock other than horses—Durham and Hereford cattle.

The County Exhibits.

In the county exhibits, the awards have been made at the pavilion as follows:

First premium, increased to $750—Sacramento county.

Second—Placer county $300.

Third—Sutter county $300.

Fourth—Colusa county, $300.

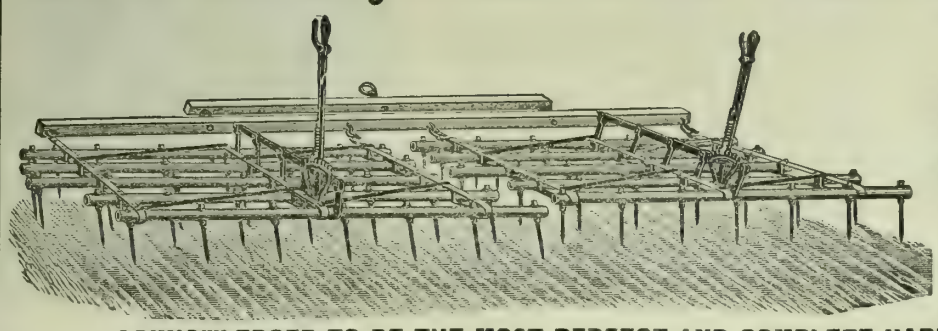
Fifth - Sonoma county, $200.

Sixth—Winters District, comprising parts of Solano and Yolo counties, $200.

Seventh—Merced county, $150.

Eighth—Mariposa county, $50.

The Evans Adjustable Steel Frame Lever Harrow.



IT HAS NO EQUAL. THE STRONGEST HARROW MADE.

Can be used as a straight-tooth pulverizing harrow, or a slanting-tooth smoothing harrow. By means of the lever the teeth can be set straight, or to any desired slant. The beams are made of steel tubes, and the teeth pass through the same and are threaded and held firmly in place by a tap. If stalks or trash accumulate on the teeth, when used as a straight-tooth harrow, the teeth can be changed in a moment, by means of the lever, to a slanting position for cleaning off the trash.

As a smoothing harrow it never clogs, all rubbish being cut in two, or passing down and off at the end of the teeth, and is completely buried; and for cultivating young grain in its early stage, it is unequaled. It thoroughly pulverizes the soil, and destroys all the weeds, while the young grain remains uninjured.

ACKNOWLEDGED TO BE THE MOST PERFECT AND COMPLETE HARROW ON THE MARKET.

No. 37, made in three sections, contains 120 teeth; cuts 20 feet wide; price.....$60
No. 34, " " " " 105 " " 18 " " " 50
No. 31, " " " " 90 " " 16 " " " 45
No. 24, made in two sections, contains 70 teeth; cuts 11½ feet wide; price.....$35
No. 25, " " " " 60 " " 10 " " " 30
No. 26, " " " " 50 " " 8 " " " 2

During next 60 days will make a Special Discount of 25 per cent for cash with order.

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THE Most Efficient Wood Preserver.

APPLIED WITH AN ORDINARY BRUSH.

Protects All Kinds of Timber, Above or Below Ground or Water, from Rot and Decay.

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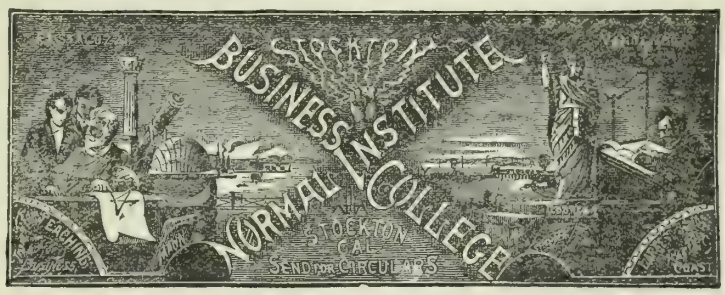
EXCELLENT BOARD $10 per Month.



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MANUFACTURERS OF

SHEET IRON & STEEL PIPE

FOR TOWN WATER WORKS.

Hydraulic, Irrigation and Power Plants, Well Pipe, Etc., all sizes.

NO. 180 BEALE STREET, SAN FRANCISCO, CAL.

Iron cut, punched and formed, for making pipe on ground where required. All kinds of Tools supplied for making Pipe. Estimates given when required. Are prepared for coating all sizes of Pipes with a composition of Coal Tar and Asphaltum.

FOR $19.00

We can send you one of our

SPECIALTY SINGLE BUGGY HARNESS,

Which is the result of years of figuring to make the best harness ever known for the money. It is made from oak stock, hand stitched and finished by skillful mechanics, handsome full nickel or Davis hard rubber trimmings.

Just the Harness for an Elegant Turnout.

They sell here for $25.00, and harness not as good is often sold for $35.00 in retail shops. If harness is not as represented, money will be refunded.

Liebold Harness Co.

110 McAllister St., San Francisco.

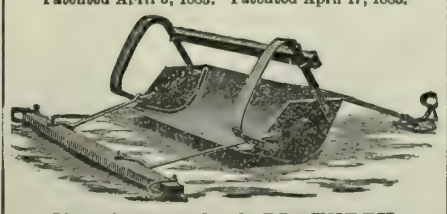
Collar and Hames, instead of Breast Collar, $2 00 extra.

Please state if you want single strap Harness, or folded style Harness, with traces double throughout.

—THE—

Porteous Improved Scraper

Patented April 3, 1883. Patented April 17, 1883.



Manufactured by G. LISSENDEN.

The attention of the public is called to this Scraper and the many varieties of work of which it is capable, such as Railroad Work, Irrigation Ditches, Levee Building, Leveling Land, Road Making, etc.

This implement will take up and carry its load to any desired distance. It will distribute the dirt evenly or deposit its load in bulk as desired. It will do the work of Scraper, Grader, and Carrier. Thousands of these Scrapers are in use in all parts of the country.

This Scraper is all steel—the only one manufactured in the State.

Price, all Steel, four-horse, $40; Steel two-horse, $31. Address all orders to G. LISSENDEN, Stockton, California.

STOCK SCALES

4 TON $45.

U. S. STANDARD. FULLY WARRANTED.

Delivered at your R. R. Station and ample time for building and testing allowed before acceptance.

OSGOOD & THOMPSON, Binghamton, N. Y.

PORTABLE PLATFORM SCALES, TRUCKS, ETC.

Twenty-five per cent cheaper than any other on the market. Send for Catalogue.

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DOUBLE Breech-Loader $7.50. RIFLES $2.00 WATCHES

GUNS

BICYCLES $15 All kinds cheaper than elsewhere. Before you buy send stamp for catalogue to THE POWELL & CLEMENT CO. 166 Main St., Cincinnati, O.

GALE CHILLED PLOWS

BAKER AND HAMILTON

SAN FRANCISCO-SACRAMENTO

PATRONS OF HUSBANDRY

The Secretary's Column.

By A. T. Dewey, Secretary State Grange of California.

VISIT TO SAN JOSE GRANGE.—Recently 15 members of Eden Grange (including Worthy Master Dennis and Judge Blackwood) chartered an omnibus and drove to San Jose, over 30 miles distant. They surprised the Garden City Grangers, to the delight of the Patrons of both Granges. A class of seven was initiated at the meeting.

MASTERLY SENTIMENTS.

In his address to members of the Order, March 21, 1892, J. H. Brigham, W. M. of the National Grange, expressed the sentiments which it is well for voters to consider at this time, namely: "We should also take a lively interest in the nomination and election of representatives. It is of no use to petition to men who turn a deaf ear to our cries. Nominate friendly men in your party conventions. Elect friendly men at the polls, and then all your reasonable demands will be granted. Retire every 'people-be-dammed' man, in convention if you can, at the polls if you fail in convention. Ballots are even more effective than bullets. If the people fail to make proper use of the former, the time may come when the latter must be used to 'Keep the Jewel of Liberty in the Family of Freedom.'

"No more important campaign was ever entered upon by a patriotic people than the one just before us. The people must learn to distinguish between sound argument and sophistry. They must not mistake the railing of the demagogue for the inspired eloquence of the true patriot and honest citizen. No Order or organization has done more to qualify farmers to make wise use of their political power than the Patrons of Husbandry. We are proud of our past, intensely earnest at the present, very hopeful of the future."

SEVERE ILLNESS.—J. Hollister, P. M. of Eden Grange, we are sorry to learn, is seriously ill in San Francisco, under charge of the eminent physician, Dr. Lane. Bro. H., after having the "Grip" last winter, was painfully troubled with neuralgia, which has now been aggravated with other ills until his condition is deemed critical. He has many sincere sympathizers.

WHAT WILL THE PROGRAM BE?

This is the question naturally asked relating to the coming session of the State Grange, opening at San Jose, Oct. 4th. According to the ordinary custom, we can anticipate that the Grange will meet at 10 A. M. The room now being prepared in the new Unitarian Church, we apprehend, will be very commodious and comfortable. After hearty greetings between Patrons from various quarters of the State, and the singing of welcome Grange songs, the State Grange will be opened in ample form by Worthy Master Davis. The appointment of the Committee on Order of Business will be in order, also the report of the Committee on Credentials.

Tuesday afternoon the annual address of the W. M. and other officers' reports may be expected to consume most of the session.

Tuesday evening a reception to the State Grange by the Mayor, citizens and Grange of San Jose will be tendered, with appropriate speeches, music, etc.

The usual order of business will doubtless be proceeded with during succeeding days of the session, embracing the roll-call of subordinate Granges, reports of Masters and alternates, the introduction and discussion of resolutions pertaining to the welfare of the Order, reports of standing and special committees, and election of a member of the Executive Committee.

On some evening a dramatic entertainment will be tendered by the talented Patrons and their friends of San Jose. Thursday evening the fifth and sixth degrees will be conferred in ample form, followed by Pomona's Feast. A programme memorial services will also find place at some period of the session.

The following resolution, offered by Bro. Roache and adopted at the last session, should have due and timely attention:

"Realizing the importance and benefits of the social features of our Order, and also the self-evident fact that much of these benefits is unavoidably curtailed by a well-nigh endless order of business; therefore

Resolved, That some specific time be set apart for a more close observance of the annual Love Feast of the Order, and all be invited to participate in the much-enjoyed and vitally essential branch of our great fraternity."

The foregoing is mentioned as suggestive of a portion only of what is likely to take place. Many other exercises of great interest will doubtless be presented.

W. L. OVERHISER P. M., called at our office on Monday. He is now ready to do some further organizing work before the State Grange session. He is quite enthusiastic in regard to Independent Grange, which is still taking in new members.

SACRAMENTO GRANGE is up and doing, taking in new members, and will have a good delegation at the State Grange. American River Grange will, we believe, also have a good turn out. In fact, indications appear good for a large attendance generally throughout the State jurisdiction.

CALIFORNIA PATRONS would be pleased to welcome a goodly number of visiting officers and members from Oregon and Washington at our State Grange.

BRO. THOS. MCCONNELL, whose term on the Executive Committee expires at this session, is now in Oregon. We hope he will return in season to attend the State Grange.

FROM THE LEGISLATIVE COMMITTEE.

The following resolutions will be presented for the consideration of the State Grange by the Committee on Legislation:

Resolved: 1. That we are in favor of changing the Federal Constitution so as to provide for the election of United States Senators by a direct vote of the people.

2. That we are in favor of the passage of a law at the next session of the Legislature providing for the organization of mutual fire insurance companies.

3. That we protest against any extension of time for the payment of the amounts of money due the Government from the Union and Central Pacific R. R. Companies

4. That we are in favor of the passage of a law by the Legislature providing for the reassessment of all property in this State which has been assessed since and including the year 1883, and on which the taxes, or any part thereof, have not been paid, and for the collection of all unpaid taxes thereon.

5. That we are in favor of the passage of a law providing for the annual collection of a graduated tax upon that part of the net income of all trusts and corporations which is in excess of $50,000 per annum.

J. V. WEBSTER,
S. T. COULTER,
C. W. NORTON,
J. H. MCKUNE.

BROS. LOUCKS AND WALTON will examine the records and accounts of the State Grange on Friday, Sept. 30th, in the office of the Secretary, preparatory to the annual report of the Executive Committee, of which they are members.

THE S. G. Executive Committee will hold its regular quarterly session in the office of the Secretary in San Francisco, Monday, Oct. 3d, the day previous to the opening of the annual session of the State Grange.

A NOTE from Sister Davis, dated No. 21 Glen Park Av., S. F., Sept. 16th, closes with a mention of the W. M., as follows: Am pleased to say he is standing the trip very well. We will be at San Jose to the State Grange meeting in due time. Hoping that the meeting will be a very pleasant one, I am very truly yours, MRS. E. W. DAVIS.

STATE LECTURER HUFFMAN has appointments for speaking before the Grange at San Lucas; also to San Antonio Grange at Jolon.

NO AMENDMENTS NEEDED.—The amendment of the State Grange Constitution recommended by Bro. Huffman he now says is unnecessary, it being found to be fully within the jurisdiction of the subordinate Grange to dispose of funds paid in by applicants who fail to come forward for initiation. As no other amendments to the State Grange Constitution have been recommended, and none were adopted by the last session of the National Grange, for the first time on record, we believe, our State Grange meets without any opportunity for constitutional tinkering.

YUBA CITY is one of the many Granges that has had a prosperous year, and will be well represented at the State Grange.

COUNTY EXHIBITS.—The several county exhibits at the State Fair this year were very interesting and excellent in character. The displays were set up in varied forms, which added much to the attraction. Owing to preparations for exhibits at the World's Fair, cereals, dried and canned fruits were more than usually conspicuous. While the exhibits were not made so generally in the name of the Grange as formerly, we noticed that Grangers, in their individual capacity, prepared and tended to most of the county exhibits.

WHATEVER his politics, every farmer and workingman should see to it that fewer lawyers and more men of practical experience on the farm, in the factory, or in business, are sent as delegates to political conventions or nominated for office. There are many lawyers who are faithful, honest and conscientious, but the best plan for the average citizen is to leave them severely alone in politics. With fewer lawyers in our Legislature we should have less law-making, less litigation and a more equitable distribution of public burdens.—Farmers' Friend.

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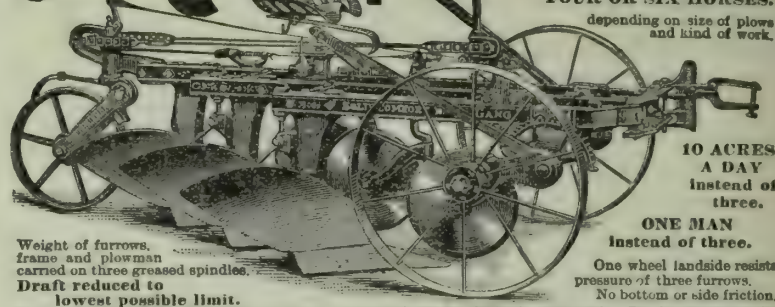

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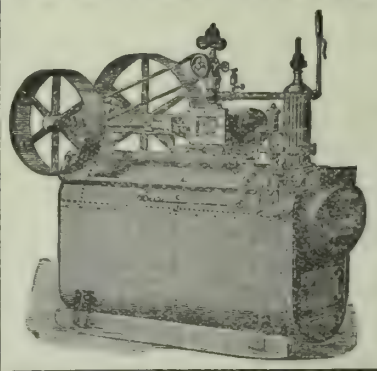

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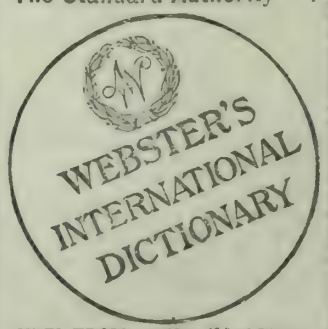

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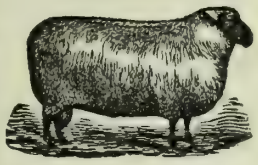

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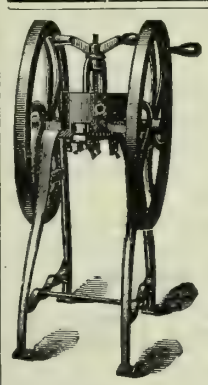

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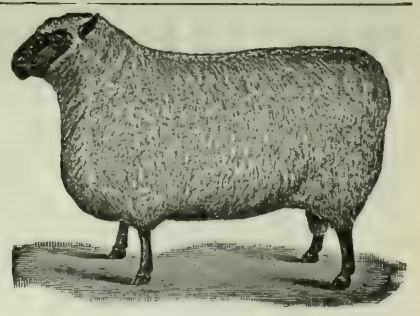

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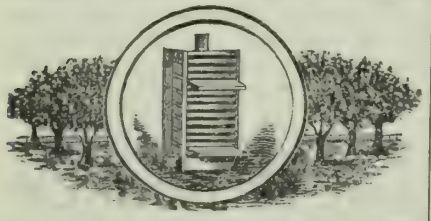

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S. F. Market Report

Market Review.

SAN FRANCISCO, Sept. 21, 1892.

The local money market is working closer. It is claimed that the banks are not disposed to place funds against warehoused grain unless at full rates of interest; even, in some instances, an advance has been demanded. The closer market is not due so much to a lessened supply of available funds as it is to guarding against an emergency. Remittances from the interior are freer, and it is only a question of a short time when bank reserves will be very large. With larger reserves and fears of a cholera epidemic in this country allayed, the banks will again be pressing the market with funds at shaded rates of interest The only drawback to this would be a gambling deal in mining shares. During such deals the public are free buyers of shares and therefore borrowers of money, and thus they keep employed large sums of money and at good rates of interest.

Estimates continue to come to hand of the probable outturn of the wheat crop in all producing countries, and so far there are wide differences of opinion. The general opinion, though, is that the total yield will be fully 175,000,000 bushels, and perhaps 200,000,000 bushels less than it was in 1891, but that this falling off will be largely neutralized by a heavy carry-over from last season. While this opinion is gaining ground, yet the concensus of opinion is that the consumption of wheat will, this season, be largely in excess of that during the season of 1891-92. This view of the situation is based on a lessened root and corn crop. Take, for example, the United States. In this country it is claimed that the carry-over of wheat from the 1891-92 season into the 1892-93 season was about 160,000,000 bushels, which fully meets the falling off of the crop in this year when compared with that in 1891. While the lessened outturn in 1892 is largely met by the carry-over, yet there is a lessened flour-making output, owing to more shriveled wheat harvested in the central States. Then there are two other vital factors to be considered. The outturn of potatoes and corn is considerably less than it was in 1891, and as these two articles of food meet with a heavy consumption, the price, particularly of the former, may be advanced to such figures as to turn consumers more to wheat-flour. There is another factor also to be considered, and one which will probably lessen the available surplus in this country, viz: The World's Fair in 1893 will cause a largely increased consumption of flour at the East.

The local wheat market has ruled fairly firm at steady prices throughout the week. The demand is said to have been light, owing to shippers and millmen being able to supply temporary wants by borrowing, and also by purchasing small parcels put on the market by impecunious holders. The prevailing opinion is that the ship and wheat rings will not be able to get the market down to the low prices marked some time ago to which to send prices, viz: for No 1 shipping, $1 25 per cental, and milling grades at proportionately less figures. The firmness with which farmers hold grain is against such a movement; besides, it is contended that there are large lines of shorts out, and also considerable borrowed wheat which will have to be placed, and when the shorts attempt to fill and borrowers to buy in the open market, much better prices will most certainly obtain. Ships are dull at a slight advance on 20s. f. o. The supply of disengaged tonnage is steadily increasing.

Barley came in quite freely the past week, but being largely off coast and otherwise undesirable for shipping, the market for the more choice grades of bright hold to firm prices, while feed was more or less weak at irregular prices. The fears of an early winter cause a selling pressure in some quarters, while it also causes many operators to go slow in stocking up. With those who have made climatic changes in this State a close study, the opinion prevails that we will not only have an early but also a late winter, and that it will be quite cold, fully up to the winter of 1889-90, when overland travel was often suspended owing to heavy deposits of snow on the mountain ranges. During that winter the consumption of barley was largely in excess of that during mild winters, while the late rains in the spring of 1890 interfered with seeding. The U. S. Agricultural Department report, issued on Sept. 10th, states that in the Central States the crop was light, but in California and New York it was a good average.

Oats have been coming in quite heavily, with both Oregon and Washington contributing largely to the general receipts, thus aiding very materially in sending the market to lower figures The large receipts from Oregon are a surprise to those who have been careful students of crop returns from that State, for the general returns indicated a large falling off in the outturn, and that in some of the counties there was barely enough to meet the local requirements. There is considerable poor oats on the market, for which very low prices rule. The crop of the United States is about 20 per cent less in this year than it was in 1891.

Corn has ruled weak throughout the week. While receipts were light, the demand was of an offish character. To force sales, concessions were in order.

Rye has come in sparingly, which was neutralized by a light home and shipping demand. It is asserted by some that, at present low prices, the more choice grades will bear being shipped to Europe.

Ground feed has held to fairly firm prices, with an increased demand generally reported. Hay has been more or less in sellers' favor. The latter appear to have the whip-handle and are using it for all that there is in it. Consignments which require early moving, and consequently were forced on the market, had to be sold at concessions on quotations.

In dairy produce, butter has held strong for choice to gilt-edged, with, at times, an advance obtainable for the latter. All grades under choice were slow and irregular, owing to the trade taking pickled in preference. Good dairy butter sold as low as 22 cts. The demand for pickled and firkin is quite active. Eastern creamery is about due, which will come largely in competition with the better grades of California. Cheese has been essentially unchanged. Gilt-edged or strictly fresh-laid eggs appear to be top heavy, owing to consumers turning largely to the more choice Salt Lake and Eastern. Eastern mail advices continue to report exceptionally good pasture in the central and eastern States.

Potatoes have come in quite freely, but the more choice good keepers met with a good demand. The market is oversupplied with wormy and otherwise poor potatoes, which, being sold at low prices, are against the market for choice potatoes. Onions have held to strong prices. Sweet potatoes have fluctuated. Tomatoes sold slightly higher under a free canning demand. Other vegetables did not show any material change in prices or demand.

Fresh fruit has come in sparingly, but as canners only took peaches, the market did not make any material advance. The demand came from shippers and the trade. Wine grapes are coming in sparingly. The market is strong at higher bids. We are informed that $17.50 to $21 is paid for Zinfandel.

Dried fruits have met with a good demand, with a further advance reported in the more choice grades of evaporated apples and also in plums. The supply of the different kinds of dried fruits is going quite fast into second hands. The more choice grades of dried peaches are meeting with a quick market, but all below choice are slow with concessions in order. Last year all who held dried fruits until after the holiday demand had passed were heavy losers, but this year the disposition appears to be to sell and let buyers take the chances.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	Sept.	Oct.	Nov.	Dec.	Jan
Thursday	5s10 d	6s10 d	6s09 d	6s02 d	6s02¾d
Friday	5s10 d	5s11½d	6s00¾d	6s01½d	6s02½d
Saturday	5s10½d	5s11½d	6s00½d	6s01½d	6s02½d
Monday	5s10¾d	5s11½d	6s00½d	6s01½d	6s02½d
Tuesday	5s10¾d	5s11¾d	6s00¾d	6s01¾d	6s02¾d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market for P. S.	Weather.
Thursday	32s6d	32s d	32s6d	Quiet.	
Friday	32s3d	32s6d	32s3d	Quiet.	Unsettled
Saturday	32s d	32s6d	32s3d	Quiet.	Fine.
Monday	32s3d	32s6d	32s3d	Slow.	
Tuesday	32s3d	32s3d	32s d	Firmer.	

To-day's cablegram is as follows:

LIVERPOOL, Sept. 21.—Wheat—Steady. California spot lots, 6s 3½d; off coast, 32s 3d; just shipped 32s 6d; nearly due, 32s 3d; cargoes off coast, firmer; on passage, firmer held; Mark Lane wheat, quiet and higher; weather in England, unsettled.

San Francisco.

WHEAT.

	Seller '92.	Buyer Sept.	Buyer Oct.	Buyer Dec.	May
Thursday, high st	128¼	....	....	134	....
" lowest	128	....	....	133½	....
Friday, highest	....	128⅝	....	133⅞	137½
" lowest	....	128¼	....	133⅜	137¼
Saturday, highest	....	128	....	133⅜	....
" lowest	....	128	....	133½	....
Monday, highest	....	....	....	133½	....
" lowest	....	....	....	133¼	....
Tuesday, highest	....	128	....	133¼	....
" lowest	....	128	....	133	....

The following are to-day's recorded sales on Call:

Morning Informal,—Wheat—Buyer December, 1000 tons, $1.33; 1800, $1.33½ per ctl. Regular Session.—Buyer December, 600 ton, $1.33½. 2200, $1.33⅝; 800, $1 33½. Buyer September, 200 tons, $1.28. Seller 1891, 100 tons, $1.28½ per ctl. Afternoon.—Buyer December, 1700 tons, $1,33⅝ per ctl. add Barley.

BARLEY.

	Seller '92.	Buyer Sept.	Buyer Oct.	Buyer Dec
Thursday, highest	85¾	...	....	9.⅝
" lowest	85¼	....	....	91⅝
Friday, highest	....	....	....	....
" lowest	....	....	....	....
Saturday, highest	....	....	....	....
" lowest	....	....	....	....
Monday, highest	....	....	....	89¾
" lowest	....	....	....	89¼
Tuesday, highest	85¼	....	85¼	9 ⅜
" lowest	85	....	85¼	90½

The following are to-day's recorded sales on Call:

Informal.—Barley—December, 100 tons, 89¾c per ctl. Regular Session.—Seller 1892, new, 100 tons 85½c 100, 84⅞c; 100, 84⅞c; 100, 84⅜c. Buyer December, 200, 90⅛c; 100, 90⅛c; 100, 89½c; 700, 89⅞c; 100, 89⅛c, December, 200 tons. 89½c; 100, 89⅜c; 200, 89⅛c; 400, 89c. October, 300 ton, 84¾c per ctl. Afternoon.—Buyer December, 500 tons, 89⅛c; 300, 89⅛c. December, 100 tons, 88⅞c; 100, 88⅞c; 500, 88c. Seller 1892, new, 200 tons, 83⅞c; 200, 83¾c per ctl.

Eastern Markets.

The following shows the closing prices of wheat for the past week at

New York.

Day.	Sept.	Oct	Dec.	May.
Thursday	1.09⅝	131½	136½	147
Friday	....	131½	136⅞	146⅞
Saturday	130	131½	136⅜	146⅜
Monday	133½	131	136¼	146¾
Tuesday	130⅝	130¼	137⅛	146⅞

The following is to-day's telegram:

NEW YORK, Sept. 21.—Wheat—78⅝c for October; 81⅞c for December; and 87⅞c for May.

Chicago.

Day.	Sept.	Oct.	Dec.	May
Thursday	120	121⅞	126⅞	134½
Friday	122	122½	126¾	135½
Saturday	....	121¼	125¾	15 ½
Monday	119¾	121	12 ¼	134⅝
Tuesday	120⅝	121⅞	125¾	135¼

The following is to-day's telegram:

CHICAGO, Sept. 21.—Wheat 7.⅝c for October; 75½c for December; and 8.⅞c for May,

Markets by Telegraph.

Foreign Grain Review.

LONDON, Sept. 19—The *Mark Lane Express* says: New English wheats are largely offered. Foreign wheats arrive freely, weakening the market and causing prices to decline 6d. An estimate of the world's imports and exports of wheat and flour for the coming year shows 846,000 (?) quarters likely to be sent to buying countries that will only need 808,000 (?) quarters, and this promises low prices throughout the year. Barley and oats are cheaper; corn unchanged.

At to-day's market more wheat was offered, some selling at 29s. Foreign wheats were generally inactive; only American was firm at 30s. Flour unchanged. Barley, oats and corn steady. Rye cheaper.

Canned Fruit.

NEW YORK, Sept. 18.—Present wants are easily filled from supplies here. There are 110,000 cases yet to arrive by sail, so large buyers are not anxious about later replenishments.

Dried Fruit.

NEW YORK. Sept. 18.—Unpeeled peaches are very salable at 14¾ to 16c.

Prunes have good inquiry, but buyers want coast prices shaded before they will operate. Good orders are noted for new foreign. Sultanas are quoted at 7½c; French, 9¾@10c in boxes.

Raisins—California futures continue neglected. Extended development of sickness in Europe would undoubtedly help the home product for a time, but it is too early to place stress upon delayed foreign deliveries consequent upon a possible quarantine There is considerable trading in Valencias at 7¼c for layers and 6¼c off the stock.

CHICAGO, Sept. 20,—California dried fruits are generally firm. Old raisins have been pretty well disposed of and the market is in good condition for receiving the new crop. A few prunes have come to hand, but only small lots. They are expected to arrive more freely next week. Prices are quoted a shade higher. Advanced prices for peaches are quoted. There is good demand for meager offerings. Apricots are selling well and ruling firm. Nectarines are in fair demand and firm.

California Fruit in London.

NEW YORK, Sept. 18.—E. R. Hutchins, vice-president of the California Fruit Transportation Company, arrived here on the steamer Majestic from Liverpool last Wednesday. From personal observation, he predicts a most encouraging future for California fruits there. He has obtained a valuable equipment of information about special measures of packing, the proper time of competition and attractive varieties from the most experienced traders in London and Liverpool. He says the late auctions were conducted with honesty for all concerned, and that Pacific fruit brought more money—weight for weight—than French.

Eastern Wool Markets

NEW YORK, Sept. 16.—*Bradstreet's* says: As has been expected for several weeks, holders of Territory wools have weakened and considerable wool has been moved at concessions averaging 1c in grease and 2@3c in scoured ℔ pound. Compared with other grades, the stocks of Territories are large and prices have been relatively higher. Fleeces are still in strong demand, but owing to the light supply the sales are not large. The light supply keeps the prices firm Texas wools are quiet. A few large lots of California wool have been taken. It is understood that prices were made to suit buyers There is very little doing in pulled wool. Australian wools are more active. The London sales opened Tuesday. The offerings include 340,000 bales. The closing prices of the last sales are maintained. Very little wool has been bought for this country. Most of the wool is not suitable for use here. In carpet wools, the feeling is even stronger than a week ago. The supply is light, and it is costing more to import wool, owing to quarantine regulations.

NEW YORK, Sept. 18.—There was very heavy business at the New England market, but only moderate dealings at other points. Sales were swelled by two large eastern mill firms taking 1,500,000 unwashed, upon which some concessions were granted for taking the parcels as they ran. The general tone of prices is no weaker for straight lots, and some of these have been piled away for possible better times. Foreign wool was particularly active, with sales of 1,500,000 pounds. Some buyers evidently want to absorb stock that will be free from the defect of fumigation that may attend shipments later on At the London sales, little wool was offered for America. The market was firm. The home woolen goods market is in good shape; sales at New York, 264,000 pounds of domestic and 614,000 foreign, mainly China and Russian Douskol. Boston sold 4,138,300 pounds of domestic. Sales of foreign were 425,000 pounds Australian and 965,000 carpet.

Miscellaneous.

NEW YORK, Sept. 18.—Honey—Our light supply of Pacific strained has been much reduced by demand always brought out by the approaching Jewish New Year.

Hops are in the tame, inactive condion that has prevailed for weeks past. No speculative feeling exists, in fact option calls at the Hop Exchange have been indefinitely discontinued. Cash State range from 12c to 22c, including new; Pacific '91s, 12c to 21c.

General Remarks and Statistics.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending Sept. 20, '92, were as follows:

Flour, qr. sks	217,799	Bran, sks	13,004
Wheat, ctls	249,119	Buckwheat "	
Barley, "	100,555	Middlings "	2,935
Rye, "	219	Chicory, bbls	25
Oats, "	20,420	Hops, "	410
Corn, "	5,0 3	Wool, "	2,449
*Butter, "	770	Hay, ton	3,8.3
do bxs	730	Straw, "	90
do bbls	75	Wine, gals	155,920
do kgs	301	Brandy, "	12,270
do tubs	71	Raisins, bxs	....
do ½ bxs	70	Honey, cs	20
†Cheese, ctls	687	Peanuts, sks	....
do bxs	123	Walnuts "	....
Eggs, doz	18,130	Almonds "	58
do " Eastern	12,0 0	Mustard "	840
Beans, sks	10,861	Flax "	....
Potatoes, sks	35,651	Popcorn "	....
Onions, "	5,187	Broom corn, bbls	....

*Overl'd, 542 ctls. † Overland, 438 ctls.

Exports by Sea from San Francisco from July 1 to Sept. 15.

	1892-93	1891-92
Wheat, ctls	2,226,732	3,596,465
Flour, bbls	216,374	250,328
Barley, ctls	470,379	143,917

Tonnage Movement.

From reliable advices up to Sept. 21, the following summary tonnage movement is compiled:

	On the way 1892.	On the way 1891.	In port 1892.	In port 1891.
San Francisco	283,835	429,367	*166,686	79,009
San Diego	15 104	27,477	7,977	.....
San Pedro	9,165	3,471	....	13,067
Oregon	50,316	71,643	40,181	
Puget Sound	3[illegible],145	38,900	.....	
Totals	394,565	570,858	214,844	92,076

*Engaged for wheat, 1892, 40,309 1891, 70,311.

Cereals.

From Mark Lane *Express*, Sept. 5, we excerpt the following: Heavy rainfall during the last five days of August caused a serious interruption to wheat harvest, and deliveries of the new crop will not now be large during the present month. This will be no disadvantage, as the sales of old English wheat during August were very large and the stocks of foreign are more than ample to meet all emergencies. The yield of the British wheat crop this year is now assumed by almost all authorities at between 8 and 8¼ millions. This will leave 7¼ to 7½ millions for food wants, and necessitates an importation of from 19 to 19¼ millions in the new cereal year. The barley is admitted to be an average yield to the acre in all the principal counties, but blight and fog followed by rain have caused within the past ten days a great falling off in color, and it is to be feared a great depreciation in quality also. * * * * The world has poured such enormous crops into the ports of the importing countries that plenty is already assured for the coming year. The United Kingdom and France actually received 38,000,000 qrs. of wheat during the past cereal year from abroad, and will this year require only about 22,000,000 quarters. In the ports and mill granaries of the United Kingdom and afloat to the United Kingdom there were last week 6,470,000 qrs. of wheat and flour (as wheat) against 3,111 000 qrs. at the same time last year, and 4,167,000 qrs. two years ago. The total quantity in the hands of farmers and traders of the United Kingdom, afloat, and in America, was at the end of the cereal year no less than 11,462,000 qrs, or five million qrs. more than last year, and four million qrs. more than two years ago.

The London correspondent of the *Northwestern Miller* says: "The wheat trade in general seems to believe that America is not likely to flood Europe with wheat at such prices as are now prevailing, but there is a general state of discouragement and lack of confidence which is almost demoralizing the trade. It is now quite certain that European importing countries will want about 304,000,000 bushels, and it is equally certain that the sources of supply outside the United States and Canada will not be able to provide more than 168,000,000 bushels, so that the United States will be called upon to supply 136,000,000 bushels to Europe alone, in addition to the 20,000,000 to 24,000,000 bushels (in wheat and flour) usually sent to South America, China, Brazil, etc. Thus 160,000,000 bushels of American wheat (or flour) are absolutely required, and yet, in spite of this, American farmers are pressing sellers, evidently at prices which cannot leave the growers any margin of profit."

The local market for wheat, to-day, was quiet but firm. It is quite generally conceded that buyers are picking up odd parcels in the country at a slight advance on bids made in this city, and for straight parcels fully 2½ cents higher is known to have been made for choice No. 1 white shipping.

Barley was quiet to-day. The general tone was said to be slightly steadier.

Oats at the lower prices are attracting more attention from both feeders and dealers, but only the better grades show much strength.

Corn was inactive to-day, but so far as we could learn, there was no selling pressure.

Rye was slow. The demand was offish. Any selling offers were met by lower bids.

Foreign Hop Crop.

Mark Lane *Express*, Sept. 5: The gales that have been experienced this week have caused immense damage to the growing hops, and the consequence will be a much smaller proportion of bright-colored samples than had been expected. The heavy rains have also been prejudicial to quality, and now that the temperature has changed to that of October, mold is spreading very fast. Picking has been pushed on with during the week, but it is evident from the condition of the hops after drying that they have been gathered in an unripe state. If the weather should be fine in the ensuing week, picking will become general, and brewers will not have long to wait now before the best sorts of the new crop are on the market. In nearly all instances where the hops were thoroughly and carefully washed, they will not show any effects of the blight, but a very large proportion were not washed at all, or only after it was too late, when the lice had got inside the cones, and in these cases the quality will be inferior and the color bad. There will also be many moldy samples. The sound and healthy hops will be very fine, and will probably command a high figure, provided they are not rushed on the market. More favorable reports are to hand from the continent, and prices at Nuremberg are now more in accord with the views of buyers. The latest calculation as to the probable yield of the English crop puts it at an average of slightly over seven cwt. per acre, but this will be reduced if mold spreads to a serious extent, as it is likely to do with the present weather.

Feedstuff.

Roll barley continues to meet with a good demand both for home and shipping. Bran and middlings were in fair demand for up-coast ports.

Although the receipts of hay are not large, yet buyers are bears and are only induced to take much by lower selling offers. It is said that feeders are well supplied for near-by wants, and only buy when they secure concessions.

Dairy Produce.

Butter was essentially unchanged to-day. Cool weather favors holders, as do light receipts of gilt-edged Fears of heavy receipts of choice to gilt-edged creamery from the central States are against much better prices in the near future. All grades below choice favor sellers.

Cheese was in fair demand for shipping, but the market was unchanged.

While eggs were quoted unchanged to-day, the tone did not appear quite so strong. The eastern and Salt Lake eggs appear to be giving better satisfaction than they did when the weather was hot.

Vegetables.

The market for garden truck was fairly steady today. Canners are heavy buyers of tomatoes, but receipts are ample to meet this and also the trade demands.

Onions were very firm to-day with a slight advance obtained for the more choice.

There was a slightly better demand for potatoes today, but so far as we could learn prices were unchanged, unless, perhaps, a slight advance was paid for something extra to fill special orders.

Fruit.

The market for fresh fruits was generally strong for peaches, pears and plums, with an advance for grapes on an active shipping demand. Canners were in the market for peaches. For Zinfandel grapes $17 to $20 per ton was bid.

Dried peaches were offering freely to-day, which caused buyers to reduce bids fully one cent per pound; other dried fruits were unchanged.

Raisins were quiet. It is said that free sales are being made in a quiet way for shipping East.

Quite an active demand is reported this season for unpeeled, quartered, dried Bartlett pears. Choice bleached sell from first hands at 10@11½ cts. ℔ lb.

Live Stock.

The market has ruled barely steady throughout the weeek. The low range of values for bullocks is a disappointment, for usually when fruit begins to get scarce and prices higher, beef grows stronger. Mutton sheep and hogs are essentially unchanged.

Miscellaneous.

Poultry has meet with an active demand at better prices. The improved call was due to the Jewish holiday. Receipts have been quite firm, but the quality was poor to good, choice still being few and far between.

Beans which have been steadily shading off made a slight jump to-day owing to a large operator entering the market as a buyer.

Honey is still scarce and wanted for both home and shipping.

The hop crop on this coast is now claimed to be considerably less than had been estimated. Some place the total outturn at about 77,000 bales. While the crop is light, yet we think it will go over the above figures.

Fall wools are coming in quite freely, but the market is inactive owing to the receipts being largely defective. The more choice grades are beginning to come in, but the supply as yet is not sufficient to induce buying except at prices favoring buyers.

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

SEPTEMBER 20, 1892.

Limes, Mex	4 50 @ 5 00	Fruit in bulk to canners:	
Do Cal	— @ —	Pears, 1½@2; Plums, white, 1½	
Lemons, box	5 00 @ 7 00	@2c; colored, 1@1½; Peaches,	
Do Sicily choice	— @ —	freestone and clings, 1½@2½.	
Strawberries, per chest—		Extra choice fruit for special	
Longworth	— @ —	purposes sells at an advance	
Sharpless	7 00 @ 9 00	on outside quotations.	
Peaches, box	50 @ 90	Beets, sk	— @ 75
Do Mountain	70 @ 1 00	Carrots, sk	40 @ —
Bl'kberries ℔ ch	3 00 @ 4 00	Okra, dry, lb	15 @ —
Figs, blk box	40 @ 75	Do green box	25 @ 35
Do White	30 @ 50	Parsnips, sk	— @ 1 25
Apples	40 @ 65	Peppers, dry, lb	10 @ —
Do Choice	75 @ 1 00	Do grn Chili, bx	30 @ 40
Canteloupes, pr		Do do Bells	25 @ 40
crate	75 @ 1 50	Turnips, ctl	75 @ —
Melons, pr 100	5 00 @10 00	Cabbage, 100 lbs	50 @ 60
Nutmegs, ℔ box	35 @ 75	Garlic, lb	1 @ 1½
Grapes, pr bx—		Squash, Sum, bx	30 @ 50
Do White	25 @ 40	Tomatoes,	25 @ 35
Do Black	25 @ 50	Do River lrg bx	20 @ 35
Do Muscats	35 @ 60	String Beans, sk	1 00 @ 1 50
Do Tokays	60 @ 75	do do Wax, lb	2 @ 3
Prunes, Hung'n	— @ —	Cucumbers, box	20 @ 30
Do German	50 @ 75	Mushrooms	— @ —
Do Coe's Gold'dp	50 @ 75	Egg Plant, bx	20 @ 40
Plums, ℔ box	50 @ 60	Green Corn, box	75 @ 1 00
Pears	25 @ 75	Marfat Squash,	
Do Bartlett	1 00 @ 1 50	℔ ton	8 00 @10 00

Twine and Baling Rope.

BALE ROPE.		TWINE.	
Sisal, 3 yarns	9	Pure Manila Hop, in balls, tarred	11½
Do, 2 yarns, light	9½	Do, Grape-Vine, in balls or coils	12
Duplex, 3 yarns	9	Do, Spring	16
Manila, 3 yarns, heavy	10½	Duplex Hop, in balls, tar'd	9½
Pure Manila, 3 and 4 yarns	12	Do, Grape-Vine, in balls or coils	10½
Do, 2 yarns, light	12½		

Continued on next page

General Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

SEPTEMBER 20, 1892.

BEANS AND PEAS		Do fair	1 25 @ —
Bayo, ctl	1 90 @ 2 15	Common	1 25 @ —
Butter	2 50 @ 2 85	Sonora	1 22½ @ 1 35
Peas	2 25 @ 2 35	HOPS.	
Red	2 15 @ 2 30	1892 Bid	18 @ 20
Pink	2 15 @ 2 30	FLOUR	
Small White	2 20 @ 2 30	Extra, City Mills	4 00 @ —
Large White	2 00 @ 2 15	Do Country Mills	4 00 @ —
Lady Wash	2 10 @ 2 20	Superfine	2 60 @ 3 00
Lima	2 80 @ 3 15	NUTS—JOBBING.	
Fld Peas, blk eye	— @ —	Walnuts, Cal. lb	9½ @ —
Do green	1 75 @ 1 90	Do Choice	8½ @ —
Do Niles	1 50 @ —	Do paper shell	9½ @ —
Split	4 50 @ 5 50	Almonds, sft shl.	11 @ —
BUTTER.		Paper shell	13 @ —
Cal. Poor to fair, lb	17 @ —	Hard Shell	7½ @ 8½
Do good to choice	22 @ 26	Brazil	9 @ 10
Do Gilteaged	28 @ 29	Pecans small	11 @ 13
Do Creamery rolls	24 @ 29	Do large	14 @ 16
Do do Gilteage	31 @ 32	Peanuts	3½ @ 4½
Eastern, ladle	17 @ 19	Filberts	11 @ —
Cal. Pickled	21 @ 23½	Hickory	7 @ 8
Cal. Keg	20 @ 23	Chestnuts	11½ @ 16
CHEESE		ONIONS.	
Cal. choice cream	9 @ —	Silverskin	50 @ 65
Do fair to good	7½ @ —	POTATOES.	
Do gilt edged	— @ 11	River Reds	60 @ 70
Do skim	5 @ 6½	Early Rose, ctl.	50 @ 65
Young America	— @ 12	Peerless	50 @ 70
EGGS.		Garnet Chilies	60 @ 75
Cal. "as is," doz.	18 @ 20	Burbank Seedlings	50 @ 75
Do shaky	14 @ 16	Do do Salinas	80 @ 1 05
Do candled	21 @ 25	Sweet	1 00 @ 1 50
Do choice	27 @ 30	Extra choice sell for more money.	
Do fresh laid	35 @ —	POULTRY.	
Do do sied white	— @ 40	Hens, doz	6 50 @ 7 50
Eastern "as is"	17 @ 19	Roosters, old	6 00 @ 7 00
Do candled	21 @ 23	Do young	6 00 @ 7 00
Do selected	24 @ 25	Broilers, small	3 00 @ 3 50
Outside prices for selected large eggs and inside prices for mixed sizes—small eggs are hard to sell.		Do large	3 50 @ 4 00
FEED		Fryers	4 00 @ 5 00
Bran, ton	14 50 @16 00	Ducks	5 00 @ 5 50
Feedmeal	27 00 @30 00	do, large	6 00 @ —
Gr'd Barley	19 00 @20 50	do, extra large	7 00 @ —
Middlings	19 50 @21 50	Geese, pair	1 25 @ 1 75
Oil Cake Meal	— @25 00	Turkeys, Gobb'r.	19 @ 21
Manhattan Food ₩ ctl.		Turkeys, Hens	18 @ 20
cabinet	@ 8 00	All kinds of Poultry if poor or small, sell at less than quoted; if large and in good condition, they sell for more than quoted.	
HAY.		Manhattan Egg Food	
Wheat, per ton	7 00 @ —	₩ 100-lb. cabinet	8 00
Do choice	— @12 00	PROVISIONS.	
Wheat and Oats	7 00 @10 00	Cal. Bacon, he'vy, lb	11 @ 11½
Wild Oats	6 00 @ 9 00	Medium	12 @ 13
Cultivated do	5 00 @ 8 00	Light	13½ @ 14
Barley	5 00 @ 8 00	Lard	8 @ 11
Alfalfa	7 00 @ 9 00	Cal. Sm'k'd Beef	11½ @ —
Clover	8 00 @10 00	Hams, Cal salt'd	12 @ 13½
Straw, bale	30 @ 50	do Eastern	13 @ 14
GRAIN, ETC.		SEEDS.	
Barley, feed, ctl.	70 @ —	Alfalfa	— @ —
Do Good	81½ @ —	Clover, Red	15 @ —
Do Choice	85 @ —	White	25 @ —
Do Brewing	92½ @ —	Flaxseed	2 00 @ 2 25
Do do Choice	95 @ —	Hemp	3½ @ 4
Do do Gilteage	98 @ —	Mustard, yellow	4 @ —
Do Chevalier	85 @ 1 10	do Brown	3½ @ —
Do do Gilteage	1 15 @ 1 25	WOOL.	
Buckwheat	2 00 @ —	SPRING, 1892.	
Corn, White	1 30 @ 1 37½	Humb't & Men'cino	17 @ 21
Yellow, large	1 23½ @ —	Sac'to valley	16 @ —
Do small	1 27½ @ —	S Joaquin valley	11 @ 16
Oats, milling	1 30 @ —	Cala's & F'th'll.	16 @ 21
Feed, Choice	1 27½ @ —	Oregon Eastern.	12½ @ 19
Do good	1 22½ @ —	do valley	18 @ 23
Do fair	1 15 @ —	So'n Coast, def.	10 @ 12
Do Common	1 05 @ —	Nevada (State)	15 @ 19
Surprise	1 47½ @ —	FALL, 1892.	
Black Cal	1 05 @ —	San Joaq'n, plain	6 @ 8½
Do Oregon	— @ —	do mountain	9 @ 11
Gray	1 22½ @ 1 30	do lamb	8 @ 9
Rye	1 05 @ 1 10	HONEY.—1892 Crop.	
* Wheat, milling		White Comb, 2-lb	9½ @ 12½
Gilt edged	1 35 @ —	do do 1-lb frames	11½ @ 14½
Do Choice	1 32½ @ —	White extract'd	7 @ —
Do fair to good	1 30 @ —	Amber do	6½ @ 7
Shipping, cho'ce	1 30 @ —	Beeswax, lb	25 @ 28
Do good	1 27½ @ —		

* Buyers' bids.

Dried Fruits.

The quotations given below are for average prices received by commission merchants for consignments by growers. Something very fancy fetches an advance on the highest quotations while poor sells slightly below the lowest quotations. Prices, unless otherwise specified, are for fruit in sacks; add for 50-lb. boxes ¼c per lb., and for 25-lb boxes, ½c to 1c per lb.

APPLES—1892.		Do fancy	13 @—
Sun-dried, ¼'s, com'on	2½ @ 3½	Sun-dr, pl'd, prime, bl.	— @—
Do do prime	3½ @ 4	Do do choice	— @—
Do do choice	4 @ 4½	Do do fancy	— @—
Do sliced, common	3½ @ 4	Evap, peeled, in boxes, choice	17½ @—
Do do prime	4 @ 4½	Do do fancy	20 @—
Do do choice	4½ @ 5	PEARS 1892.	
Evap. bl., ring, 50-lb box	8 @ 9	Sun-dried, quarters	@ 3
Fancy higher.		Do sliced	4 @ 5
APRICOTS 1892.		Evap, sliced, in boxes	7 @ 8
Sun-dried, unbl. com.	4½ @ 5½	Do ring do	9 @10
Do do prime	6½ @ 8	PLUMS 1892.	
Do do choice	9 @10	Pitted, sun-dried	10 @11
Do bleached, prime	12½ @—	Do evap. boxes, choice	— @—
Do do choice	13½ @—	Do do fancy	— @—
Do do fancy	14½ @—	Unpitted	4 @ 5
Evap. choice, in boxes	15 @	PRUNES—1892.	
Do fancy, do	15½ @	Cal. French, ungraded	7½ @ 8
FIGS 1892		Do graded, 60 to 100	8½ @ 9
Sun-dried, black	4½ @ 5	Do do 40 to 60	11 @12
Do white	3 @—	Fancy sell for more money.	
Do do washed	@	RAISINS 1892.	
Do do fancy	— @—	London Layers, cluster, ₩ bx	1 90 @2 00
Do do pressed	— @—	Do choicest do	1 60 @1 70
Smyrna boxes	— @ —	Do prime, ₩ bx	1 40 @1 45
Do sacks	— @—	Loose Muscatels, common, ₩ bx	— @ —
GRAPES—1892.		Do choice, do	1 25 @1 30
Sun-dried, stemless	3½ @	Do fancy, do	@
Do unstemmed	1½ @ 2	Unstem'd Muscatels, in sacks, ₩ lb	4 @ 5½
NECTARINES—1891.		Stemmed do do	— @ —
Red, sun-dried	8 @ 9	Seedless do do	— @ —
Do Evap., in boxes	— @	Do do ₩ 20-lb bx	— @ —
White, sun-dried	9½ @11	Sultanas, unbl, bxs	— @ —
Do evaporated	— @—	Do bleached, in bxs	— @ —
PEACHES 1892.		Halves, quarters and eighths 25, 50 and 75 cents higher respectively than whole boxes.	
Sun-dried, unpeeled, common, bleached	8 @—		
Do do prime, do	10 @—		
Do do choice, do	12 @—		
Do do fancy	12½ @—		
Evap, unpe'l'd, choice	12½ @—		

Live Stock.

BEEF.		MUTTON.	
Stall fed	5 @ —	Wethers	6½ @—
Grass fed, extra	5 @ —	Ewes	6 @—
First quality	4½ @ —	Do Spring	7½ @—
Second quality	4 @ —	HOGS.	
Third quality	3 @—	Light, ₩ lb. cents	5½ @—
Bulls and thin Cows	2 @ —	Medium	5 @ —
VEAL.		Heavy	4½ @ —
Range, heavy	4½ @ —	Soft	4 @ —
Do light	5½ @ —	Feeders	3½ @ —
Dairy	6½ @ —	Stock Hogs	3½ @—

Grain and Wool Bags.

Calcutta, spot	5½ @	6
Wool Bags	36 @	38

Wine.

Red and White Wine from bay counties, vintage of 1891, per gal. in cellar lots	12 @	20

Auction Sales of California Fruits.

At New York.

Sept. 14.—Two carloads: Bartlett Pears, $3@3.10; Bellflower Pears, $1.65; Beurre Hardy Pears, $1.70; Malaga Grapes, $1.25.

Sept. 15.—One carload: Bartlett Pears, $3@4.10; Beurre Hardy Pears, $1.80.

Sept. 16.—Two carloads: Bartlett Pears, $2 30@2 85; Beurre Hardy Pears, $1.65; German Prunes, $1.45@1.75; Duchess Pears, $1 85; Beurre Clairgeau Pears, $1.60@1.80; Onondaga Pears, $1.50@1.65; Silver Prunes, $1.20@1 30; lots with plums, $1.25@1 40.

Sept. 18.—Three carloads: Salway Peaches, $1@1.55; George's Late Peaches, $1@1.55; Cling Peaches, $1.05@1 25; Bartlett Pears, $2.90@3 20, Vicar Pears, $1.45; Fellenberg Prunes, $3.05; half crates Tokay Grapes, $1.25@2 10; half crates Muscat Grapes, 65@85c; Purple Damascus Grapes, single crates, $2.05

Sept. 19.—One carload: Salway Peaches, $1.20@1.35; Cling Peaches, $1.20@1.55; Yellow Peaches, $1.08; George's Late Peaches, $1 40; Bartlett Pears, $2 25@2.70; half boxes Pears, $1.55; Fellenberg Prunes, $3 10; French Prunes, $1; half crate Muscat Grapes, 35c@$1.10; half crate Tokay Grapes, $1.35@1.90; Grapes, 65c.

At Chicago.

Sept. 14.—Three carloads: Bartlett Pears, $1.60@2 60; Figs, 50c; Tokay Grapes, 70c@$1 68; Muscat Grapes, 70c@$1; Malaga Grapes, 60@75c; Peaches, 90c@$1 40; Pears, $1.15@2 25 Plums, $1.05@1 55; Seckel Pears, 80c

Sept. 14.—Four carloads: Tokay Grapes, $2 30@2.85; half crates, $1.15@1.45; Muscat Grapes, half crates, 75@90c; Silver Prunes, $1 05@1.10; Fellenberg Prunes, $1.45; German Prunes, $1.45@1.50; Salway Peaches, $1 35; Cling Peaches, $1.05; Strawberry Peaches, $1.85; Bartlett Pears, $2 20@2.55. Beurre Hardy Pears, $2.10; Beurre Clairgeau Pears, $1.90; Onondaga Pears, $1.85.

Sept 15.—Three carloads: One carload of Strawberry Cling Peaches averaged $1.30; Bartlett Pears, $1.75@2.75; Beurre Hardy Pears. $2.05@2.25; Beurre Clairgeau Pears, $1.65@1.90; White Doyenne Pears, $1.60; Duchess Pears, $1.70@1.85; Beurre Diel Pears, $1 50; Tokay Grapes, half crates, $1.05; Muscat Grapes half crates, 66@70c; Gros Prunes, $1.75; German Prunes, $1.35@1 50; Silver Prunes, $1.

Sept. 15.—Two carloads: Natoma Muscat Grapes to-day at auction for $1.85 per crate.

Sept. 16.—Two carloads: Muscat Grapes, per single crate, $1.75@1.80; Peaches, $1.25 per box.

Sept. 16—Four carloads: Bartlett Pears, $2@2 50; Beurre Hardy Pears, $2.25; Winter Nelis Pears, $1.65, Beurre Clairgeau Pears, $2; Tokay Grapes, half crates, $1.65; Malaga Grapes, 80c; Salway Peaches, $1.50; German Prunes, $1.45

Sept. 18—Three carloads: Half crate Muscat Grapes, $1@1.15; double crate Muscats, $1.80@2.25, double crate Tokay Grapes, $3@3 55; single crate Tokays, $1.25@1 85; Japan Plums, $1.60; half boxes Seckel Pears, $1.60; Bartlett Pears, $2 55@2 90; half boxes Bartlett Pears $1.35; Vicar Pears, $1.30.

Sept. 19—Four carloads: Bartlett Pears $2 35@2.85; Beurre Hardy Pears, $2.25; Beurre Clairgeau Pears, $2@2.05; Duchess Pears, $1.90; Winter Nelis Pears, $.55; Strawberry Cling Peaches, $1 20, Quinces, $1 30 Malaga Grapes, half crates, 75c; Silver Prunes $1.25; German Prunes, $1.55@1.60. Some fruit in bad order sold for less.

Sept. 19—Nine carloads: Peaches, 65c@$1.45; Tokay Grapes, single crates, 60c@$1.70; double crates, $3 05@3.55; Muscat Grapes, single crates, 80c@$1 75; double crates, $2 25; Winter Nelis Pears, $1 25@1.35; Orange Cling Peaches, 25c; Bartlett Pears, $2@3.10; half boxes, $1.35; Beurre Clairgeau Pears, $1 95; Comice Pears, $2 50; German Prunes. $1 55; Malaga Grapes, poor condition, 45@75c; Silver Prunes, $1.10@1.25; Fellenberg Prunes, $1.40; Egg Plums, $1.50; Japan Plums, $1 50@1 70; Doyenne Pears, $ @2 50; Beurre Hardy Pears, $2 55; Onondaga Pears, $2 75; Salway Peaches, $1.45; Cling Peaches, 70c@$1.15; Plums, $1 40.

Sept. 20.—Four carloads: Muscat Grapes, double crates, $2.20@2.30; single crates, 95c@$1 10; Tokay Grapes, single crates, $1@1 35; double crates, $3.55; Peaches, 95c@$1.35; Pears, $2; Buerre Clairgeau Pears, $1.70@2.25; Bosc Pears, $2.25@2 30; Bartlett Pears, $1.75@2 90; Comice Pears, $1.55@2.50; Doyenne Pears, $1.30@1.40; Vicar Pears, $1 30; Duchess Pears, $1.55; Buerre Hardy Pears, $2 25; Diel Pears, $1 25@1.75; D'Anjou Pears, $1.80@2 20; Winter Nelis Pears, $1.35@1 50; Quinces, $1.55.

Sept 20.—Five carloads: Bartlett Pears, $2.70@2.75; Beurre Hardy Pears, $2.35@2 40; Bellflower Pears, $2.40; Beurre Clairgeau Pears, $2.05; Salway Peaches, $1.20@1 25; George's Late Peaches, $1.20; Picquet Late Peaches, $1.25@1.30; Tokay Grapes, $2.25@2 85; half-crates, $1.25@1.60; Muscat Grapes, half-crates, $1.05@1.15; German Prunes, $1.50; French Prunes, $1.20.

At Minneapolis.

Sept. 14.—Three carloads: Bartlett Pears, $2 55@$2 60; half-boxes, $1.20; Winter Nelis Pears half boxes, $1.20; Tokay Grapes, $2.20@2.30; half-crates, 95c@$1 25; Muscat Grapes, $1.40; half-crates, 55@65c; Salway Peaches, $2 15@1.30; Orange Cling Peaches, $1.15; Picquet Peaches, $1.10.

Sept. 15 — Three carloads: Pears, $2 15@2 75; Peaches, $1.25@1.50; Muscat Grapes, 70c@$1 50; Tokay Grapes, $1.25.

Sept. 18—Three carloads; Pears, $2 20@2.50 ₩ box. The Porter Brothers Company sold yesterday for account of Florin shippers a car of Grapes. Single crate Muscats, 85c@$1 05; single crate Tokays, $1.35@$1.45; Rose de Peru, 80@90c; gross sale on this car. $900.

Sept. 19.—One carload: Strawberry Cling Peaches to-day at auction at an average of $1.30 per box.

Sept. 20.—Two carloads: Peaches, $1.20@1 50; Muscat Grapes, 30@85c; Tokay Grapes, 55@1 35; Rose de Peru Grapes, 70c.

Sept. 20.—Three carloads: Bartlett Pears, $2 90@3; Salway Peaches, $1.10@1.25; Orange Cling Peaches, $1.10; Strawberry Cling Peaches, $1.10; Tokay Grapes, $1 80@2.30; half-crates, 85c@$1.25; Muscat Grapes, half-crates, 55@90c; Cornichon Grapes, half-crates, $1.25@1.35; Picquet Peaches, $1@1.30.

At Omaha.

Sept. 15.—Two carloads: Peaches, $1.25@1.50; Pears, $1.25@1.75.

Sept. 17.—Two carloads: Peaches, $1.15@1.85; Pears, $1.30@2.

Sept. 19.—Four carloads: Peaches, 1@1.25; Tokay Grapes, $1.25@1.50; Pears, $2@2.50; Grapes, 75c@$1 50; Muscat Grapes, 75c@$1.

At New Orleans.

Sept. 16—Three carloads: Tokay Grapes, $2.45@$2.50; half-crates, $1@1.25; Muscat Grapes, $1.75; half-crates, 90c@$1; Cornichon Grapes, half-crates, $1 25; Rose de Peru Grapes, half-crates, 90c; Red Nectarines, $1.10; Bartlett Pears, $1.25@2.30.

At Boston.

Sept. 16.—Two carloads: German Prunes, $1.35; Silver Prunes. $1@1.35; Ickwith Plums, $1 30; Bartlett Pears, $2 25; Beurre Hardy Pears, $1 60@1.70; Beurre Clairgeau Pears, $1.60; Duchess Pears, $1.60; Quinces, $2.25.

Sept. 19.—Two carloads: Tokay Grapes, $2.60; half crates, $1.10@1.50; Muscat Grapes, half crates, 95c@$1 10 Salway Peaches, $1.30@1 75; Bartlett Pears, $1.20; Winter Seckel Pears. $1.15@1.55.

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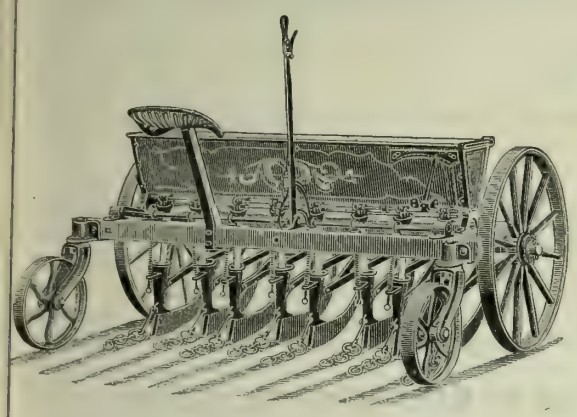

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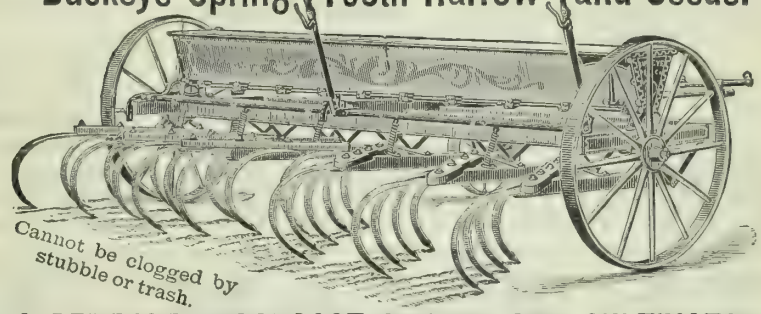

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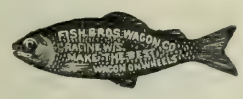

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2	Stockton	Sept. 19-Oct. 1
5	Santa Clara, George H. Bragg	Sept 26-Oct 5
6	Los Angeles	Oct. 3-5
7	Salinas City, J. J. Kelley	Oct. 4-8
10	Yreka, C. S. Smith	Oct. 5-8
11	Sierraville, Fred Blinman	Oct, 3-7
12	Lakeport, H. A. McCraney	Sept. 27, Oct. 1
14	Santa Cruz, Oscar L. Gordon	Oct. 10-15
15	Bakersfield. J. J. Kelly	Oct. 11-16
16	San Luis Obispo, J. H. Barrett,	Sept 27-Oct 1
18	Independence, C. W. Craig	Sept. 27-30
20	Auburn, F. D. Adams	Aug. 30-Sept. 3
21	Fresno. J. M. Reuck	Sept. 26-Oct. 1
26	Ione, C. T. La Grave	Sept. 27-30
27	Redding, H. R. Hodson	
28	San Bernardino	Oct. 11-15
32	Santa Ana, W. A. Beckett	Oct 3-7
33	Hollister, A. D. Shaw	Oct. 11-15
35	Merced	
36	Vallejo	Oct. 4-8
38	Modesto	Sept. 28-Oct. 1

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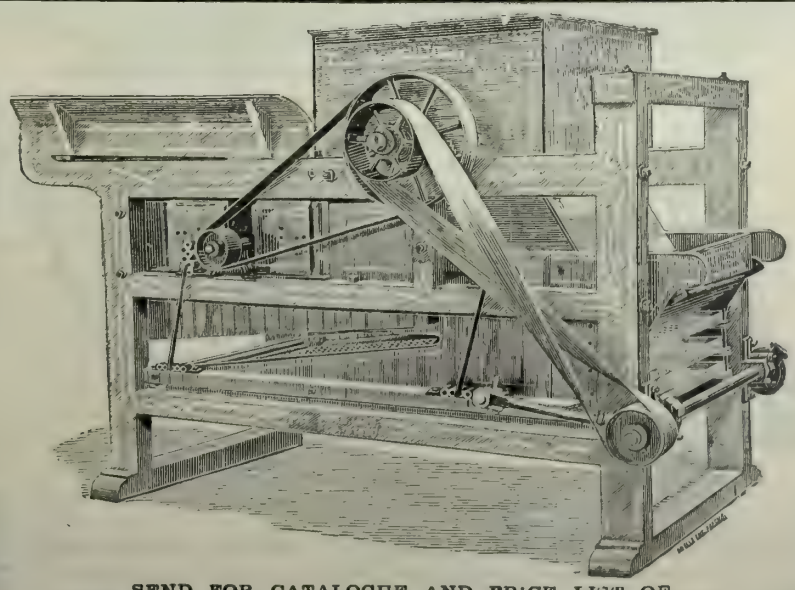

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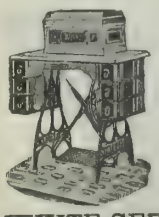

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I am yours
Very respectfully
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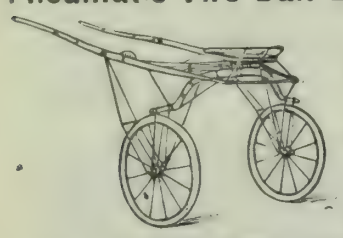
THE ABOVE TESTIMONIAL IS ONLY ONE OF MANY WHICH WE RECEIVE.

It is the Strongest, Lightest, Simplest and Most Durable Plow in existence, being by far the Lightest Draft Plow made.

We have them Two, Three or Four Gang, either Riding or Walking. Write for Prices.

Pneumatic Tire Ball Bearing Sulkies.



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STYLE "E." **FOUR GANG.**

KING OF PULVERIZERS FOR HARSH, REBELLIOUS SOILS.

Matchless for Pulverizing Salt Grass and Other Sods.

The style "E" is designed for use in soils where any other implement of its c[illegible] not expected to work successfully. Intended for clay, or "adobe" soils, and particularly for pul eri[illegible] [illegible]ious "adobe" clods, is reducing "adobe" summer-fallow lands to a condition suitable for receiving [illegible] fine the fall rains, it has leaped into prominence and favor, and we are pleased to say that it still mai[illegible] tion, won under great difficulties.

The front gangs throwing outward and the rear gangs throwing inward cause a most complete pulveriz-tion of all the surface and no furrow or ridge is left in the middle, as the rear gangs throw toward each other, leaving the whole "cut" of the harrow perfectly level and smooth.

The rear gangs of spades are so set that they run between the front gangs, thus presenting a cutting surface to the earth **every three inches**, whereas any two-gang disc or other harrow does not present a cutting surface to the soil any nearer than six inches. Owing to its peculiar construction, the style "E" Spading Harrow will do three times the amount of execution that any other kind of implements can possibly accomplish in the same time. The style "E" is a double machine, and by reason of one set of spades throwing the soil one way and the other set throwing the soil in an opposite direction, it accomplishes its work at one operation, or in going over the land once only, where disc or other harrows could not do the work in going over the land less than three or four times.

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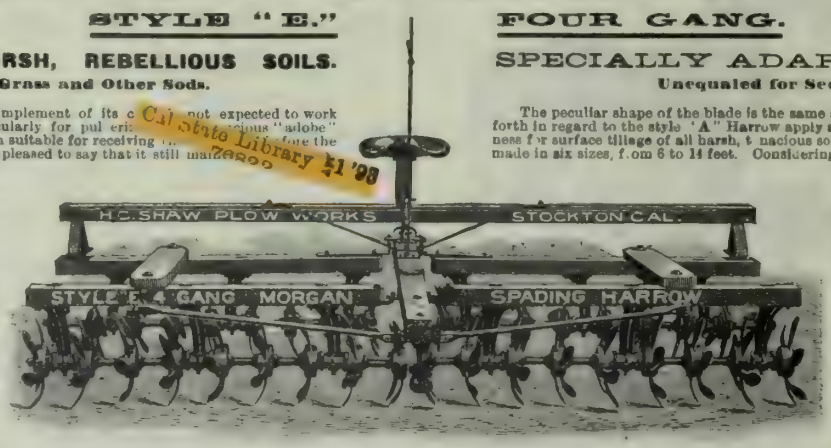

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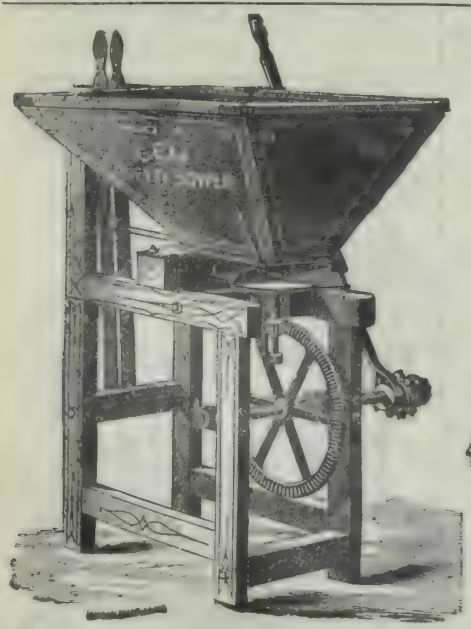
Unequaled for Seeding Summer-Fallow Lands.

The peculiar shape of the blade is the same as those used on the style "A" Harrow, and any "points" set forth in regard to the style "A" Harrow apply also to style "E." The style "E" is unrivaled in its effectiveness for surface tillage of all harsh, tenacious soils, and often proves an effective substitute for the plow. It is made in six sizes, from 6 to 14 feet. Considering the amount of work accomplished it is very light of draft. It loosens, crumbles and lightens the soil, does not pack it, and does what no other implement in the world will do, viz:—leaves the soil thoroughly pulverized, stirring it from the bottom upward, to fine condition and exposed to the enriching influences of sun and air. It thoroughly covers seed grain and is a most economical implement to use for this purpose alone. It will cover from a fourth to a fifth more seed than any other implement used in broadcast sowing.

All of the materials entering into the construction of the style "E" Harrow being of the best obtainable, render it very strong and practically indestructible. No pole is used, as the harrow pulls perfectly "true" from strong draft irons. No unwieldy pole to be broken out or cause sore necks on the team. Write for prices.



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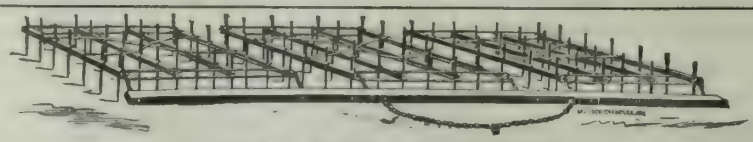

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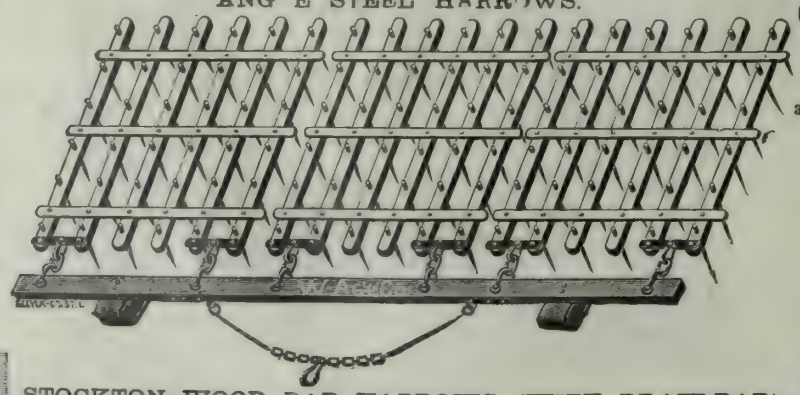

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We have Circulars descriptive of our goods, which we will send you at any time. Address

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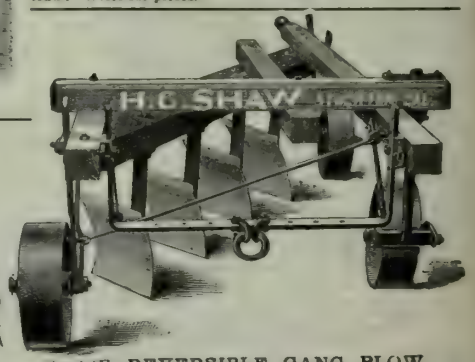

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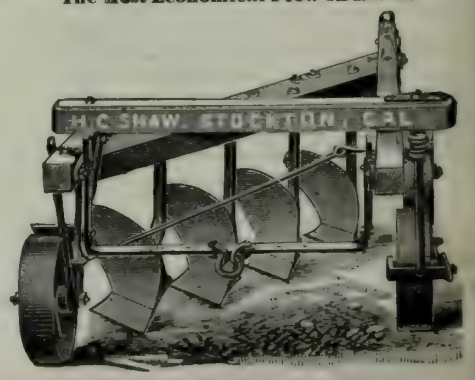

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For Deep Plowing, Tule and Other Sod Lands.

CALIFORNIA STATE

Vol. XLIV. No. 14. SAN FRANCISCO, SATURDAY, OCTOBER 1, 1892. THE DEWEY PUBLISHING CO Office, 220 Market St.

Meaningless Crowns.

When the inhabitants of a free country get to dabbling with crowns, they generally make a mess of it. This emblem of royalty is evidently a misfit when applied to any sentiment or article of produce which a Republic may hold or set forth. Just now it is the old trouble with crowns as applied to raisins, and there perhaps never appeared more clearly the desirability of distinctively Californian raisin brands, which should have definite meaning and represent a recognized grade of produce.

Recently, we noted the arraignment of some merchants by the Fresno Raisin-Producers' Association because they were marking some two-crown raisins with three crowns, but selling them at a two-crown price. This, upon the face of it, appeared to be an attempt to cut under the rate fixed for three-crown stock, and the Association was disposed to be indignant at this breach of faith upon the part of merchants who cast their lot with the producers in fixing minimum purchase and sale prices. It has since transpired that it has been the custom so long to three-crown a two-crown raisin at a two-crown price that no reform can be accomplished this season. Therefore, the Raisin Association, at a meeting last Saturday, declared as follows:

> This Association will not consider it a breach of the agreement to brand a second quality of London layers as three-crown provided it was not sold for less than $1.45 a box, and that the first quality London layers, also branded a three-crown, remain as heretofore, to be sold at $1.65 a box.

Here, then, we have first and second quality raisins moving under the same brand and selling at two prices. It may not be desirable to insist upon any different arrangement for this season, but a change should be made as soon as possible. It is not fair trade to have different grades of produce bearing a mark which is understood to belong to the best.

ALAMEDA COUNTY FARMERS' INSTITUTE.—The meeting of the Farmers' Institute that was appointed to take place this fall at Niles has been set for Oct. 15th. It was arranged at the Livermore meeting that this Niles meeting, as it takes place in a region largely devoted to fruit-growing, should be a distinctively horticultural affair. Several of the prominent fruitgrowers of the district have agreed to give their experience in various lines of fruit-growing, and with the free and intelligent discussion that always follows papers, a great deal of common sense and valuable information is sure to be brought out concerning horticultural matters. Other subjects will be touched on, no doubt, but the one named will be given the most time. These meetings are free to all, and at this time of the year when farm work is "slack," it is hoped to have a good attendance from all over the county.

By the Sad Sea Waves

The engraving upon this page may strike with a chill some of our readers who reside in regions where winter is already beginning to close its grasp upon external nature. The nearer, however, one draws to the grand old Pacific in this latitude, the less he thinks of seasons, and consigns himself rather to continued enjoyment of the perennial mildness of the ocean beach. For weeks to come, although the crowds of summer visitors have flown, surf-bathing upon the beaches of southern California will be delightful on all days not actually covered by storms. Our most popular seaside resorts are, in a sense, all-the-year affairs, and there is no boarding up of seaside hotels as there is upon the Atlantic coast. In fact, now that the tradewinds have ceased, there will come many days of delightful warmth in the air and quiet in the water which even months accredited to summer on the calendar seldom afford. Aside from the bathing, which is of course the feature of the foreground, the sweep of waters extending to the horizon is grateful to look upon and contemplate. The ocean at rest is well portrayed by the photograph from which the engraving is produced.

SURF-BATHING AT SANTA CRUZ.

OUR VEDALIA IN SOUTH AFRICA.—Readers may remember mention, some months ago, of a visit to this State by Mr. Louw, who came here from Cape Colony, South Africa, to get a lot of the Australian ladybird, which had done such wonderful work upon the cottony-cushion scale in this State. He returned hence taking two parcels of the Vedalia, one lot being shipped on ice and the other kept open and fed en route. Both were alive when he arrived at the Cape, and he writes that the experiment has been so successful that various parts of the Colony have been supplied with the insect, which, no doubt, will be as useful in clearing off the cottony-cushion scale there as it has been in California and the Hawaiian Islands.

THE CHOLERA.—Reports favor the success of the efforts to exclude the cholera from this country. No new cases have been reported in New York for several days.

Another Tobacco Enterprise.

J. D. Culp of San Felipe, Santa Clara county, has never lost his faith in California tobacco production, though he has gone through vicissitudes in this line which would have discouraged a less persistent producer. We notice in the Gilroy *Advocate* that the San Felipe Havana Tobacco Co. was incorporated and a contract made between its directors and J. D. Culp covering the terms upon which the company is to handle the product of his farm at San Felipe. The capital stock is $100,000; shares 20,000; par value, $5 each.

P. C. Hodges is president of the new company; Geo. T. Dunlap, secretary; and A. Robinson, treasurer. The Board of Directors are: P. C. Hodges, J. H. Ellis, A Robinson, S. T. Moore, Geo. T. Dunlap. The plan of the company is to proceed at once to the making of cigars, working for the time being in the building now occupied by A. Wolfrom, whom the Board has selected as superintendent. The directors hold in trust a large amount of working stock capital which will be continuously on the market to Gilroy purchasers at $5 per share, the par value, and with the stock already subscribed, the *Advocate* thinks, there is no reason why the enterprise should not grow into a large and profitable factory.

Many of our readers will be interested in this announcement, for many have been experimenting in the same direction. It has recently been stated that California tobacco has achieved a much better reputation than it formerly enjoyed. The old difficulties in the way of satisfactory curing in this dry climate must have been mastered. There is much interest manifested in the crop and from the successful growth of the plant which has been demonstrated in a small way in many parts of the State, it may be inferred that a large and profitable output is possible providing the leaf can be put in a cured form which is acceptable to the tobacco manufacturers. Mr. Culp's new start in a business with his neighbors as participators seems to indicate full confidence that his old-time anticipations will yet be realized.

STATE CITRUS FAIR.—The State Board of Agriculture has just decided to hold the next State Citrus Fair for Northern California in this city in January. The State appropriation makes available the sum of $2500 for premiums. The exhibition will be held at the Mechanics' Pavilion, San Francisco, in conjunction with the preliminary World's Fair exhibition, providing it can be done harmoniously. J. K. O'Brien of Smartsville, Yuba county, has been appointed Superintendent of the Fair. The Southern District Fair will be held in Los Angeles in March.

PACIFIC RURAL PRESS.

By The Dewey Publishing Co.

Office, 220 Market St.; Elevator, 12 Front St., San Francisco., Cal.

Annual Subscription Rate Three Dollars a year. While this notice appears, all subscribers paying $3 in advance will receive 15 months' (one year and 13 weeks) credit. For $2 in advance, 10 months. For $1 in advance, five months. Trial subscriptions for three months, paid in advance, each 60 cents.

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Per Line (agate)	$ .25	$ .50	$ 1.20	$ 4.00
Half inch (1 square	1.00	2.50	6.50	22.00
One inch	1.50	5.00	13.00	42.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type, or in particular parts the paper, at special rates. Four insertions are rated in a month.

Registered at S. F. Post Office as second-class mail matter.

Any subscriber sending an inquiry on any subject to the Rural Press, with a postage stamp, will receive a reply, either through the columns of the paper or by personal letter. The answer will be given as promptly as practicable.

Our latest forms go to press Wednesday evening.

ALFRED HOLMAN.....General Manager

San Francisco, October 1, 1892.

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Grain Cleaners, Gas and Gasoline Engines—Daniel Best.
Paints—Paraffine Paint Co.
Olive Trees—Howland Bros
Olive Nursery Stock—C. F. Loop & Son.
Windmills, Pumps—Frank Bros.
Guns, Revolvers—J. A. Johnston.
Sewer Pipe, Fire Brick—N Clark.
Fruit, Seeds and Stocks—Meehan & Sons.
Gas Machines—Jacob Schreiber.
Vertical Engines—James Linforth.
Swine—J. P. Ashley.
Sheep and Goats—R. H Crane.
Thoroughbred Swine—E. W. Melvin.
Cultivators, Shovels—Deere Implement Co.
Gang Plows, Harrows, Trucks, etc—Matteson & Williamson Manufacturing Co.
Freestone Peach Trees—Grant Oak Fruit Co.
Wine and Cider Presses—F. W Krogh & Co.
Flour—Farmers' Union and Milling Co.
Household Supplies—Pacific Coast Home Supply Ass'n.
Windmills—Crane Company.
Sweep Horsepowers, Wine and Cider Presses—F. W. Krogh & Co.

The Week.

Public attention which is not engrossed by the election which is now only about five weeks away, seems to be running upon events of nearly four centuries ago. The general plan of making the celebration of October 21st a school affair all through the country seems to be taking well. The suggestion was a good one. The young mind will be impressed as perhaps it could be in no other way with affairs connected with the birth of the hemisphere.

It seems strange indeed that the world, old as it is, should have lived so long without finding its better half, and how deep and wide was the impression produced by the discovery can be best brought to mind in this later day by starting the children at work upon it. What fills the mind of the child, older people can seldom escape from.

The prospect is that the world will learn more this year about the closing years of the fifteenth century than it has ever known before. All the accumulations of the scholars seem to be spread out for popular admiration, and the keenest interest is being manifested therein.

San Diego has done well this week with its unique celebration of the landing of the Portuguese Cabrillo in her famous bay 350 years ago. A ship built to imitate an old-time caravel carrying a modern Portuguese in ancient costume landed amid a welcome of the wildest Indians which they could make out of the modern degenerate material, and did not seem at all disconcerted to find a fleet of United States warships, a group of governors, generals and admirals and ten thousand people honoring the landing. It was a gala day, with the inevitable oration, brass bands and soldiery—another Fourth of July in the autumn. No wonder the affair is reported a wonderful success in every particular.

Increased Shipments.—Newcastle, Placer county, has shipped to September 20th, this season, 8,558,596 pounds of fruit, against 6,243,013 pounds up to the same date last season, or a gain of 2,314,583 pounds.

The State Grange.

The annual council of the California State Grange, to many of our readers the most interesting of all the year's events, will occur during the coming week. San Jose is the place and Tuesday the time of meeting, and it is expected that the deliberations with the festivities attending them will last through Wednesday, Thursday, Friday and Saturday. It is the good practice of these annual gatherings to emphasize the social side of the Grange plan and they have come in their general spirit to be festivals rather than conventions. Serious business is neither forgotten nor neglected, but it is attended to in business hours, and the intervening periods are given up to fellowship and diversion in those wholesome forms in which husband, wife, parent and child co-operate and vie with each other. Of all the conventions of the year there is none like the State Grange, because there is none other in which wives, mothers, sisters and daughters have equal part and none other in which the purposes are purely beneficent and into which some form of the evil spirit of partizanship does not enter.

In the way of business there will be comparatively little for the coming meeting to do. Mr. McConnell's official term as a member of the Executive Committee expires by limitation, and a successor will have to be chosen, but this we imagine will probably be done in five minutes. All other officers hold over for another year, so there will be no loss of time on that score. The most serious proceeding will most likely be the consideration of a series of resolutions which has been prepared and recommended for adoption by the Legislative Committee, composed of Messrs. Webster, Coulter, Norton and McKune. The resolutions are five in number, as follows: (1) Favoring a change in the Constitution of the U. S. providing for the election of Senators by direct vote; (2) favoring the passage of a law at the next Legislature providing for the organization of mutual fire insurance companies; (3) protesting against any extension of time for the payment of the amounts of money due the Government from the Union and Central Pacific Railroad Companies; (4) favoring the passage of a law by the Legislature providing for the reassessment of all property in this State which has been assessed since and including the year 1883, and on which the taxes, or any part thereof, have not been paid, and for the collection of all unpaid taxes thereon; and (5) favoring the passage of a law providing for the annual collection of a graduated tax upon that part of the net income of all trusts and corporations which is in excess of $50,000 per annum. In these recommendations there are some suggestions radically at variance with the fundamental plan of the Government, and it is not unlikely that there will be friendly differences of opinion and consequent discussion concerning them. There will no doubt be other subjects for discussion, but nothing is now apparent to indicate what they will be. The general business will be the reception of reports from the several officers, with discussions of the conditions and policies of the Order. These duties will not burden the delegates, who will no doubt find ample time to partake of the hospitalities which await their presence at San Jose. The festivities already planned include a general reception by the Mayor and citizens, a dramatic entertainment gotten up by the local Grange and a Pomona Feast. Incidentally there will be diversion in many other forms. San Jose affords many attractions, the surrounding country being one of exceptional interest to the farmer and orchardist from the variety and the perfection of its cultivation. Mount Hamilton is a comfortable journey from San Jose and many no doubt will view the glories of the midnight sky through the big Lick Telescope.

The past year has been a fairly successful one for the Grange in California. Its principal incident has been a general canvass which was prosecuted industriously through the spring and early summer and in which the officers of the State Grange, all the Past Masters, and nearly every prominent Patron in the State took part. While the results were not all that was hoped for, still the canvass was successful in that it awakened the Grangers of the State to new interest and activity in the Order. While it is certain that through this canvass a good many recruits were secured, it is impossible to tell how many because it is only once a year that official reports are collated. It is unfortunate that there is not a system of monthly reports by which the officers of the State Grange could be kept definitely informed of the doings and conditions of the several local organizations. If such a system could be devised, it would aid vastly in the work of administration and would result in very great benefit to the broader interests of the Order. The Master of the State Grange ought to be able at all times to know just what is going on in every part of the State, but under the present system, or rather in the absence of system, he is unable to get any information excepting by personal visitation or through the friendly assistance of fellow-workers. Although a considerable sum of money was expended in the canvass, the State Grange is in a good financial condition, and we are informed by the State Secretary that it has no debts and has money in bank. There ought to be a world of encouragement in this fact since in the present organization of society, financial independence is the first requisite to free and effective work in any line of effort. The fact that the Grange has money in bank is a consideration not to be over-valued. There should be good care in the future as in the past year to so husband the limited income of the State Grange as to maintain the present comfortable financial status.

The Grange in California, and the country at large for that matter, has gotten past its infantile stage and is now an established and permanent institution. The history of its efforts and the failure of some of its early projects is part of the history of the country. The Grange, like every other successful human institution, has had its experiences of reversal, and its later policy has been shaped with a wisdom born of discipline. The hardships of the "seventies" were, as they occurred, a severe trial, but in many ways the trial was wholesome. It demonstrated what was practical and what was not practical in the original Grange plan, and it separated the chaff from the grain. The overzealous and impractical and the faint-hearted—and these are found among rural as among all other classes—dropped out, leaving a circle of steadfast, sound-hearted men and women holding fast to the Grange for the good there was in it, not discouraged nor driven from the field because they failed to conquer the universe at the first assault. This solid element found instruction in failure, declined to consider itself either beaten or discouraged; and now, after many years of devotion to a good cause, finds abundant reward in the later victories of the Order and in its increasing power. The Patrons of to-day see the Grange, not indeed the hot revolutionist which immature hopes pictured it, but a stanch, conservative and respected social force working steadily in practical ways for useful ends. In reviewing the accomplishments of the Grange, they see them, and the whole intelligent world sees them, reflected in wiser laws, in a broadened intelligence among farmers, in a closer connection between the agricultural interest and the Government, in a better fellowship among neighbors, and in a new intellectual and social spirit among young and old in the country districts. They see rural life expanding in its interests and advancing in its influence as a direct result of the associations and the co-operative principal fostered by the Grange.

The vital power of the Grange, as the Rural views it, rests chiefly upon its social character and in the happy way in which it brings domestic and business aims into combination. No other organization so fully co-ordinates the interests of social, industrial and family life. In none other are instruction, entertainment and progress so leagued and bound together, and none other contrives to win by its interests an equal degree of devotion in both young and old. The Grange deserves to live and prosper, for its purposes are noble, its practices instructive and refining, and its influence wholly good.

A Great Horse Show.

Californians who may happen to be at the East during the week beginning November 14th should make note of a grand horse show which is to be held at the Madison Square Garden, New York, on November 14th, 15th, 16th, 17th, 18th and 19th. It is announced that the list of premiums will have an aggregate value of $35,000. The prizes for thoroughbred horses foot up a total of $1100, of which $750 will be the first prize, $250 the second and $100 the third. The trotters are very well taken care of indeed.

There is a champion prize of $1000 open to all stallions having taken a first prize at any recognized horse show prior to the closing of entries. There will be a first prize of $1000, a second of $400, and a third of $150 in class four for stallions to be shown with four of their get, the oldest of the get not to exceed four years. There are many other prizes very well arranged for the trotting classes. The roadsters, Clydesdales, Normans, Hackneys, coaching stallions, carriage horses and other classes are very well taken care of. So are the ponies and the hunters. The occasion promises to be a notable one.

Eastern Fruit and the Cholera Scare.—It is telegraphed that the cholera scare is having a disastrous effect on the fruitgrowers of the Hudson River valley. Every day fruitshippers receive notices from merchants in New York to discontinue shipping, as fruit is perishing in the markets. Many farmers in Duchess county are leaving their orchards untouched.

From an Independent Standpoint.

A reader of the RURAL PRESS asks for an explanation of "just what is meant by the phrase 'fraudulent railroad capitalization.'" The question is easily answered. Fraudulent railroad capitalization is that proportion of the aggregate of the stocks and bonds—or other evidences of ownership or obligation—of a railroad company in excess of the actual value of the property which it stands for. In other words, if a railroad company is capitalized for, say, $100,000,000, and if its properties are worth only $50,000,000, one-half of its "capital" having, in fact, no existence except on paper, is fraudulent. With the proportions varying from one-fourth to three-fourths, this is precisely the situation of most of the railroads of the country. Part, but not all, of the difference between the nominal and the actual value is "water," pure and simple. The "watering" process usually begins at the birth of a new railroad corporation. Some practical "financier" or some local coterie discovers an unoccupied field for a railroad. A company is organized with capital stock away up in the tens of millions and a few hundreds or thousands are paid in for the expenses of a preliminary survey and for the publication of a glowing prospectus. The company sends an agent to New York, Boston or some other money center who by dint of persistent drumming effects a sale of bonds, in this way raising enough money to build and equip the projected road. The completed road belongs to the original company subject to the obligation to the bond-holders, and the "capitalization" is the aggregate of the bonds and of the original stock (the aforesaid tens of millions.) The smallest fraction of the stock is ever really paid up but it is divided among the projectors (who might more properly be called the conspirators) and it figures forever after as part of the "capitalization" upon which the patrons of the road are required to pay dividends. But this stock which the schemers get for next to nothing represents only a part of their profits from the enterprise. By virtue of owning the stock, the "financiers" control the expenditures for construction and the contracts are usually let to themselves, organized into "Construction," "Supply," "Development" or "Improvement" Companies. Naturally, the original company, (Smith, Jones & Brown) makes good terms with the "Construction Company" (again Smith, Jones & Brown) and Messrs. Smith and Jones and Brown as individuals usually come out very rich men with piles of money made in construction and supply contracts and by incidental townsite schemes in addition to their holdings of stock for which they paid nothing. It is by these methods that commonplace men become "magnates"—and by one and the same process they "skin" the investors, (the bond-holders,) on one hand and pile up "capitalization" which the public is expected to support by taxation in the form of freights and fares.

One of the best known of the Oregon roads (the Oregon Railway and Navigation, now incorporated into the Union Pacific system) affords in its history a good illustration of some of the ways by which excess capitalization is created. About fifteen years ago the Oregon Railway and Navigation Company acquired for six millions of dollars a steamboat property whose actual value was less than two millions. Later it acquired a steamship property at a cost proportionately above the actual value of the steamers bought. Subsequently it built at different times lines of railroad from Portland to the eastern boundary line of Oregon and into the heart of eastern Washington. The work of construction was done in "boom" times and by "boom" methods. The managers drew enormous salaries which were further supplemented by sharing in the profits of construction contracts, by percentages on the purchase of materials and supplies, by manipulations of the stock market and other familiar methods by which railroad "magnates" contrive to gain wealth, whether the properties under their administration pay or not. When the construction was finally completed, the whole property was shown to represent a "capital" of about forty-five millions of dollars, and it was leased to the Union Pacific Company for a term of ninety-nine years, under guaranty of six per cent per annum upon the whole capitalization. At the time of this transaction, which came about through a conflict between the Union Pacific and the Northern Pacific for control of the road in question, the writer was informed by a competent railroad engineer, a man who had had a share in the actual work of construction, that the real value of the property, as measured by what it would cost to duplicate it, was in the neighborhood of fifteen millions of dollars. Here, then, is an instance of a property worth fifteen millions capitalized at three times that amount and leased to a company pledged to pay six per cent on the whole "capitalization." Two-thirds of this enormous capitalization of forty-five millions was bogus. It had no existence in fact, for there was nothing in actual property to represent it. Is our inquiring reader now able to see what is meant by "fraudulent capitalization?"

Viewed superficially, this doubling and trebling of "capital" by railroad owners might be deemed an innocent form of self-deception, concerning only themselves. Closer scrutiny of the subject, however, shows it to be extremely mischievous and very much the business of the public whose contributions support the railroads. The companies claim, and on the face of things the claim is plausible enough, that railroad property is fairly entitled to a percentage of profit equal to the current earnings of investment in other forms of property. This principle admitted, and there would be no grievance if railroad earnings were made to yield a profit of five, six, or even seven per cent on the value of the roads. But here comes the rub. A "fraudulent capitalization," varying from one-fourth to three-fourths of the alleged capital of the roads, is made the basis of demand, and therein lies the injustice. The country which supports a road would not complain at rates planned to yield five, six or seven per cent upon the actual investment, but it resents as an unwarrantable imposition an adjustment of rates calculated to yield these percentages of profit upon a "capitalization" fraudulently expanded to double or three times the actual value of the property. How the scheme of over capitalization is made to work against the public may be seen by referring again to the Oregon Railway and Navigation property. The Union Pacific, to which this property is leased, pays six per cent per annum on a capitalization of forty-five millions, or thereabout, and must therefore, to make itself whole, not to mention profits on the transaction for itself, make the leased property yield $2,250,000 of profit. Six per cent on the actual value of the property would be only one-third of this amount, or $750,000. The public, therefore, is made to pay $1,500,000 per annum to support dividends on a capital which in fact has no existence. Is it surprising that the vast, rich Columbia River Basin, which supplies the traffic of the road in question, is racked by transportation charges? It is only surprising that the country is able to support its burden. The people suffer under it with tolerable patience, but the tax is too great for permanent endurance, and it cannot always or for very long be borne. The result will be, in time, such a practical protest as will force the road into bankruptcy, and when it emerges from the ordeal it will be upon a basis of its actual value. This is the inevitable final necessity in all such cases, and time will bring it about. The people of the United States will not go on forever paying tariff rates levied to support interest rates upon millions of dollars of "capital" which exists only on paper.

The apologists of the prize ring—and there are not lacking persons of respectability to defend this dirty, degrading and criminal "business"—claim for it that it stimulates "athletics" and thus results in mental and moral good. Unquestionably, it stimulates "athletics," but it is more than questionable if any good is thereby accomplished. What is called "athletics" is largely a waste of physical force in idle "sport," and its results, we believe, are oftener bad than good. During the past week two well-known "heroes" of the prize ring have died—and from consumption. The loss of such heroes is not, in our view, a very serious matter, but the causes of their taking-off may well occasion serious reflection as to the effects of "athletic" training. Our own observation goes to prove that such training is, in four cases out of five, actually harmful. It develops the muscular powers, stimulates them to unnatural efforts and puts a strain on the system which always finds and often snaps the weakest vital link. Nature, left to herself, never puts a man in what sporting men call "condition," and nature rarely sends a man, who begins life with a sound constitution, to the grave from consumption, heart failure, or any of the other ills which not uncommonly afflict the athlete. There is no man who cannot, if he will, keep his body in wholesome condition without the practices of "athletics." The resort to the gymnasium is too often the beginning of unwholesome courses. The interest is wholly apart from the best accompaniments of natural "exercise." There are no fresh breezes, no open skies, no scent of flowers, no music of waters, no song of birds in the gymnastic hall or on the tan-bark track. The work is purely muscular, and there is connected with it no charm of sense, no expansion of mind, no elevation of soul. The influence of it may be read in the chat of the hall. It runs chiefly, if not wholly, to the subjects and heroes of the prize-ring. The effect of all this upon character, especially upon the character of boys, is, to say the least, not good. That sort of thing never yet produced a high-minded, sweet-souled man. The gymnasium in which this type is developed is God's broad out-of-doors.

State Fair Cattle Show—No. 2.

From Our Own Correspondent.

As before noted, the cattle stalls were not as well filled as in recent years. Altogether, there were about 240 head, some 20 less than last year.

The Shorthorns, as usual, were most numerous, there being about 100 head of all ages and classes, but neither in quality nor condition were they as good as last year. This was particularly noticeable in three or four of the largest herds on exhibition.

It is true that prevailing prices are not very enthusing nor encouraging for bringing out cattle in high show condition, as there are few people who, under the present conditions of the cattle trade, care to pay enough for an animal to reward the breeder and feeder for the extra outlay the higher condition entails. But breeders, to insure success, must look ahead to provide for future merits in the herd by neglecting no means, however trifling it may for the present appear, that will insure such constant and steady improvement, by careful breeding and feeding, as is always necessary to keep up a breeding herd to a high standard of merit.

How quickly a herd of cattle will degenerate by neglect of what are seemingly trifling details, experience alone can tell. Any observing person who has watched the downward course of so many herds in this State during the last 20 years will have seen enough of that kind of experience, some of which is undoubtedly due to the fact that so many people start in to breed pure-bred cattle with too little knowledge of what is required in the management of them. Some have taken it up with a view to making money, bought high-priced cattle, had them attended to and showed around for a few years, and finally given up with disgust. Unfortunately, there is little money in it now, and the breeders who have money-making for their chief, and perhaps sole aim and end in breeding, are not the ones to hang on to the business through good and bad times.

How many breeders are there now in the State who have made a standing success of their work? If there are two or three representing each of the principal breeds, it is all we can expect; but are there so many?

It is just as well to look facts in the face and see how we stand in this matter now and how we are likely to stand in the near future. The cattle industry never stood in greater need of the support of successful breeders than it does now. The show-yard is a place to learn lessons by comparison; it brings out the best a man has; if he doos not show something good there, it is more than likely that he has not got it.

SHORTHORN CLASSES.

The class for three-year-old bulls was a small one, there being only five animals forward. The first prize was awarded to Scotch Billy, a bull that has kept the width, depth and substance of last year when he was undeservedly left out in the cold, as to premiums; however, he had the justice he deserves this year. Though not by any means a *showy* bull, as we noted last year, a little more scale would help him in that respect, yet he is a good sort to have, with heavy flesh, short legs and the masculine character one likes to see in a bull.

Mr. P. H. Murphy took second prize with Duke of Wildflower, a four-year-old bull, with a good middle, back and thighs, but, like his more successful competitor, he also is not a showy bull; he has, however, got substance and good flesh, either of which count for more than mere style so attractive to some people.

In the class for two-year-old bulls, Heilbron Bros.' 3d Duke of Wildflower took first premium. This bull has not kept the good form he had as a yearling. He took the prize last year in that class and was, at that time, a very smooth and evenly-fleshed bull.

Mr. V. E. Hill of Hanford came in for second with Lucerne Duke, a pretty good, short-legged bull, but not in show condition; evidently, he had come right off the lucerne pasture. Mr. Hill had seven head on exhibition, two of which were cows entered for the Shorthorn milk test.

In the yearling bull class, Heilbron Bros. took first prize with a good, thick-bodied bull, by far the best in the class. The same firm was also first in the bull-calf class, in which there was nothing of extraordinary merit. Heilbron Bros. had about 23 head of Shorthorns on exhibition; they are not in the blooming condition they were in last year, consequently they did not show to the same advantage.

SHORTHORN COWS.

In the class for aged cows, Mr. J. M. Dixon's Manunga was placed first, and the same owner's Flora took second prize. At this we were somewhat surprised, as she is coarse and short in the hind-quarters, flat-ribbed and peaked on the chine, and is not, in any sense of the word, a show cow. There were two or three better cows in the class, but, particularly, Mrs. Younger's Red Dolly 27th, a roan by the way, a round-barreled, squarely-built, short-legged cow, well and evenly covered with flesh. If this cow had been placed first in the class there could have been no fault found with the decision. She was afterward awarded sweepstakes premium as best female Shorthorn, and justly so.

The sweepstakes premium for best bull was awarded to 28th Grand Duke of Gloster, belonging to Heilbron Bros., who were also first in the yearling and heifer-calf classes, though, in the former class, J. M. Dixon's second premium heifer, Manunga 5th, is a smoother and more evenly-fleshed heifer, with better back, ribs and loins than her more successful rival, and no injustice would have been done had their places in the class been reversed.

HEREFORDS

Were on hand to the number of about 20 head exhibited by Heilbron Bros., all in fine condition, much better than any other herd of beef cattle on the ground. Geo. Bement & Son had also a bull and a heifer, besides their regular herd of Ayrshire cattle, in which they had Mr. Nicholls for

competitor with another herd of the same breed. The show of

BLACK CATTLE

Was not so large as last year; nevertheless, Dr. Dixon of Sacramento succeeded in carrying off the sweepstakes premium for the best herd of beef cattle, with his Polled Angus herd of one bull and four cows. Last year the same was won by a herd of Herefords, over the black cattle and two Shorthorn herds. This year there was only one Shorthorn herd. Truly it is high time for those who have this breed of cattle to be looking to the laurels won in times past, for we don't yet believe they are going to depart from the breed; if so, the fault will be with the breeders and not with the breed

Mr. W. B Gibson of Woodland had a few of his Galloway cattle on hand, among them a fat cow, one of the best of any breed we have ever seen on this coast. Excepting that, proportionately, she is not quite so well covered on the loins as she is good on the crops, it is practically impossible to find a fault in her form and flesh. The same gentleman also showed a grade steer, but in this animal, as a whole, there was nothing for special commendation. This brings us to the

GRADED CLASSES,

In which premiums are not now given to graded cows, but to graded steers or barren heifers. Why this change of doubtful benefit? Are not the dairy interests of this State one of the most valuable in regard to the products of cattle? Certain it is that the State does not produce butter and cheese enough for home consumption, and that the required increase in production must be brought about by the improvement and selection of our dairy cows; which improvement will be most quickly and thoroughly effected by a more general use of pure-bred bulls of well-known milking strains of cattle. Thus dairy cows, the great majority of which must always be grades, become an important factor, a kind of stepping-stone in the upward grading of our cattle that must be had at any reasonable cost.

JERSEYS.

There was a better and larger display of this breed of dairy cattle than we have seen for many years. Mr. Henry Pierce was deservingly the most successful exhibitor, taking something like 13 premiums with 14 animals.

There were a few from Los Angeles county, amongst which were some two or three dehorned ones. The operation had not by any means added to either the attractiveness or beauty of the animals.

HOLSTEINS

Were well represented by animals from the herd of F. H. Burke, Menlo Park, and from that of the Hall Stock Farm, near Marysville. Both were looked upon by visitors as being good herds and there were several milky looking cows in each lot.

Mr. Burke was awarded the sweepstakes premium for the best bull of any age, but in cows Mr. Hall was the winner, though on what grounds the premium was awarded to Mr. Hall's cow we could not see, unless it was that she was a little neater in frame, but she had not so good an udder, neither did she show as good indications for milking qualities in any other respect as did Mr. Burke's cow.

THE SHORTHORN MILK TEST.

There were six cows entered for the premiums given by the American Shorthorn Breeders' Association for the first and second best Shorthorn cows giving the most butter in two days, according to the Babcock test. Considerable interest was taken in watching the results of the test. Wishing to see how the thing came out from beginning to end, we dropped into the room when the first trial was being made and found the operator and two or three of the exhibitors poring over the contents of the test bottles, which showed an unreadable mixture of curds and butter-fat. It looked a little like a forlorn hope, as far as the Babcock tester was concerned, and we are not sure but they had almost come to the conclusion that it was no good, when hope inspired a second trial, which, by accurately following the printed instructions, proved a success and showed the percentage of butter fat clear and distinctly readable.

The testing was done on the last two days of the fair, and, being in at the finish on Saturday night, we give the results of the two days' trial:

Name of Cow.	Morning's Milk.		Butter Fat, Per Cent.	Evening's Milk.		Butter Fat, Per Cent.	Total Milk from each cow in two days.	
	Lbs.	Oz.		Lbs.	Oz.		Lbs.	Ozs.
1—Fidget 8th	19	8	3.8	18		3		
	17		3.2	18		3.1	72	8
2—Joan of Baden 2d	15	8	3 2	14	8	3.1		
	14		3 6	15		2.4	59	
3—Belle of Antelope	17	8	2 8	19		3.4		
	20		3	22	8	3	79	
4—Rosely K	12	8	4	12		3 8		
	13		4	10		3.6	47	8
5—Rosabelle	16		2 6	18	8	2.6		
	17	8	4	16	8	4	68	8
6—Rose of Brighton	8	8	1.4	21		2·7		
	12	8	2.6	17	8	3.2	59	8

The cows Nos. 1 and 2 belong to V. E. Hill of Hanford, Tulare Co. Nos. 3 and 4 to Peter Peterson, Sites, Colusa Co., and Nos. 5 and 6 to P. H. Murphy, Brighton, Sacramento Co.

Notes of the sweep and swine classes will come later.

Correction in the Holstein-Friesian Premiums.

We are informed that the State Fair premium list, which we published last week, should be corrected as follows:

Best bull calf, T. B. Hall instead of F. H. Burke; second best 3-year old cow, T. B. Hall instead of F. H. Burke. Also under herds: Best young herd, headed by Duke Aaggie Clothilde, was won by T. B. Hall instead of F. H. Burke.

THE VETERINARIAN.

Abnormal Milk.

LOS GATOS, Sept. 12, 1892.

TO THE EDITOR:—I have a cow about four years old, who, prior to her last calf, made good butter, but since produces the poorest kind of butter—white and frothy. She gives nearly four gallons of milk a day; cream about the thickness of a table-knife, and of such consistency that it can with difficulty be taken up with the skimmer. She has the best of wheat hay, bran mash, cornstalks and other green feed, has a good appetite and appears perfectly healthy. Have a nice, cool place for milk and butter. Can you or your readers tell what the trouble is and suggest a remedy?

The cow is seven-eighths Jersey and one-eighth Durham, and yet since calving, her milk is the bluest I ever saw.

SUBSCRIBER.

Give the cow the following medicine night and morning: Powdered sulphate of iron, 1 drachm; quinine, half a drachm; powdered gentian, 2 drachms. Mix with half a pint of beer and drench her night and morning. Feed her crushed barley and flaxseed in addition to the food you mention. Continue the medicinal treatment for a fortnight, then notify me the result. A. E. BUZARD,

405 Broderick St., S. F. Veterinary Surgeon.

Larkspur Poisoning.

HUENEME, Cal.

TO THE EDITOR:—What is a good treatment for wild larkspur? This weed has caused a large mortality among the cattle in this district the past season. The poison causes a bloat, and when the animal is down, soon dies. The blood is black, and much relief is afforded by bleeding. What would comprise a good, compact outfit to be carried on the saddle for the treatment of this malady?

H. S. HARVEY.

In cases where the animal is much bloated, it will be necessary to puncture the rumen (paunch) with the trocar and canular, which will liberate the carbonic acid or sulphuretted hydrogen gas. In the early stages give 4 ozs. of aromatic spirits of ammonia largely diluted with water. In the later stage give hyposulphite of soda in one-ounce doses dissolved in cold water. The above medicinal remedies can be repeated in half an hour if necessary. The trocar and canular can be purchased at Folker Bros., surgical instruments, Market St., S. F.

A. E. BUZARD, V. S.

Southern Development.

ALESSANDRO, CAL., Sept. 22, 1892.

TO THE EDITOR:—Everything is very quiet in the Alessandro district just now. Lines are being run for a proposed canal around the foothills at the north end of the valley, and there is talk of the construction of a large reservoir to store water for the lands below.

Many acres have been set out to trees and vines during the past year, and many more are being plowed and graded for planting this coming winter.

Moreno is having a fine, large schoolhouse built, that is nearing completion, at a cost of $3500. They have built a smaller one in the northern end of the district, at a cost of $1200. Cloverdale district has just begun the erection of one costing $1650, all this where it was hard to find the necessary 15 scholars to entitle us to a district three years ago.

Land that sold three or four years ago at from $15 to $20 per acre is now held at $200, without improvements, other than that the water has been piped to it.

While on a visit to Bloomington, four miles west of Colton, a few days ago, I found the country all around transformed from a desert, as it was five years ago, into a productive country that is furnishing homes and employment to a great many people. They have a fine schoolhouse nearly completed, at a cost of about $4400. The Congregationalists are going to build a church in the near future.

Rialto, two and a half miles away, is a thriving town, with hotels, churches, fine schools, etc. West Rialto, two and a half miles west of Rialto, has a fine school-building, just completed.

So, industry and thrift is transforming the desert into the homes of a people who realize that on the intelligence of the future citizen rests the safety of the nation.

L. S. LYMAN.

P. C. W. P. A.

Written for the Rural Press by Maud Peaslee.

Last week the Pacific Coast Women's Press Association in convention assembled elected the following officers for the ensuing year: Mrs. Emily Browne Powell of Alameda, President; Mrs. Sarah B. Cooper of San Francisco, First Vice-President; Mrs. Charlotte Perkins Stetson of Oakland, Second Vice-President; Mrs. James Neall of San Francisco, Third Vice-President; Mrs. George T. Gaden (nee Lewis) of San Francisco, Corresponding Secretary; Miss Mary Lambert of Oakland, Recording Secretary; Mrs. Ella M. Sexton of San Francisco, Ass't Recording Secretary; Mrs. Florence Percy Matheson of San Francisco, Treasurer; Mrs. Nettie B. Wilcox of San Francisco, Auditor; Mrs. Sarah E. Reamer of San Francisco, Librarian; Miss Agnes Manning of San Francisco, Mrs. Lillian Plunkett of San Francisco, and Mrs. Nellie B. Eyster of San Francisco, the additional members of the Executive Board.

With regret for the past officers the association welcomes the new officers, and much pleasure was expressed over the ticket as presented.

On Wednesday morning, after roll call, the Convention was opened by a prayer by Sarah B. Cooper. Next in order was "Greeting," by Mrs. Nellie B. Eyster, which was responded to by Mrs. Ruthella Bollard.

Appointment of Committee on Resolutions, report of Nominating Committee and annual report of officers and standing committees absorbed the rest of the time for the morning session.

In the afternoon, a paper on "Genuine Fellowship," by Mrs. Sarah B. Cooper of San Francisco, carried many points straight home to the listener's heart. The president's annual address touched upon many vital points of interest to out-of-town members.

As an example of the power of woman to grasp and explain in detail the weighty problems of the day, the paper on the "Nicaragua Canal," by Mrs. Emma Russell Endres of San Francisco, was especially fine.

There were many other papers during the session, of subjects peculiarly interesting to workers of the newspaper craft. Among them were "A Country Newspaper Woman," by Mrs. Elizabeth Raymond of Santa Cruz; "The Press as an Educator," by Mrs. Emeline M. North of San Francisco; and "News or Gossip," by Mrs. Nettie B. Wilcox.

Others equally good are crowded out of this report for want of space, but justice demands especial mention of the paper, "A Story Well Written," by Maggie D. Brainard of San Jose, and "The Collector's Conscience," by Charlotte Perkins Stetson of Oakland.

An animated discussion on the "Employment of Children in California" was joined in by many.

Poems and music were pleasant diversions to the business of the convention.

World's Fair Notes.

The Educational Committee, appointed by the California Commission, has decided that in addition to the graphic and illustrative exhibit, there will be prepared for distribution at Chicago, cards and small hand bills giving the educational statistics of the States.

Santa Barbara County has about decided on a representation of a cloister to enclose the exhibit from that county that will be placed in the California Building of Chicago. It is proposed to construct the cloister of a light frame, covered with woven wire. The wire is then to be covered with the pale green moss that is found on the native live oak trees. The interior of the dome will be covered with pampas plumes, while the columns and a portion of the interior will be covered with festoons of live oak moss. It is desired to place a large palm in the center of the cloister and rare plants in the arches between the columns. The structure will be at least 50 feet square.

S. S. Boynton, of Oroville, Secretary of the Butte County World's Fair Association, reports that two men are now engaged in preparing specimens of all varieties of wood found in the county. Sections showing the bark, sap portion and heart of the tree will be shown.

The different World's Fair Auxiliaries in Santa Clara County have decided that the souvenirs to be used at Chicago shall consist of dried prunes and other dried fruits placed in small and neat pasteboard boxes.

The Fresno County World's Fair Commission, through the Ladies' Board, has decided not to have printed labels on articles exhibited at Chicago, but in lieu thereof will have silk labels and scarfs hand painted, with a picture of the fruit or article displayed on one end and also the name and address of the exhibitor embroidered in silk. A prize of $25 has been offered for the best 50 pounds of cluster raisins. An offer of $100 has also been made to the artists of California for the best design for arranging the Fresno exhibit for Chicago.

The southern California World's Fair Association has received orders from the various organizations in the six southern counties for 1250 boxes for dried fruits for World's Fair purposes. A lady in Pasadena has donated 2000 calla lily bulbs for the World's Fair.

STILL IN DOUBT.—The Southern fruitgrowers seem still in doubt about the efficacy of the recently imported lady birds from Australia. There was held last week in Los Angeles a meeting, in which a report was adopted commending the effort made to introduce fruitpest destroyers from Australia, but denounces the circulation of glowing accounts by the State Board of the progress of these colonies as being at variance with the facts. A survey of the colonies of orcus chalybeus, orcus australasiae and leis conformis failed to show that they had propagated at all, or had attacked the various scale-bugs of which Koeble claimed they were the deadly enemy. The hope is expressed in the report that Mr. Koeble's predictions may yet be fulfilled, but advises fruitgrowers to trust more to artificial methods of fighting the scale than to the bugs. Fumigation is advised and a united warfare against injurious insects is recommended. There seems to be a straight issue raised between different authorities on the outlook for these insects, and the two local agents of the U. S. Division of Entomology seem to be on opposite sides.

GRAPE PRICES.—T. R. Minturn, a prominent Fresno county vineyardist, says that the wine grapes throughout the entire San Joaquin valley are dried, in consequence of which the sweet wine product will be extremely small this season, but if the weather remains favorable for another week the grape growers will be benefited, owing to the fact that green grapes are worth $15 a ton. It is reported that the Tokay grape crop of Sonoma valley will be very light. Many growers report one-fourth of a crop. The grapes were ruined by cold nights followed by hot days during the months of July and August. Sonoma produces a splendid shipping Tokay.

AT ALVARADO.—A local correspondent of the *Call* says that the sugar factory at Alvarado will begin handling beets sometime about the end of September, and the growers are fearful of a wet and early winter. If so, without doubt, many beets will be lost, as much of the land is liable to overflow; the roads are bad and the mill will not receive muddy beets. There are about 1500 acres in beets this year. The price is $4.50 a ton.

TALL BEARDED WHEAT.—The State Board of Trade has received a sheaf of Mount Whitney wheat, seven and a half feet long, sent by W. W. Hammond of Tulare Co. This wheat is of the bearded variety, and was imported from the highlands of Russia. It is said to yield, under fair conditions, about 20 sacks to the acre.

FLORIST AND GARDENER.

Tuberous Begonias.

We are glad to receive a copy of an essay on tuberous begonias read by the distinguished grower John Laing, Forest Hill Nurseries, London, S. E., before the "Begonia Conference of the Royal Horticultural Society," which was held August 23rd. Mr. Laing introduces his paper with interesting historical and descriptive points and concludes as follows:

USES.

One of the most important uses to which Begonias can be put is for indoor decoration in pots and to a smaller extent in baskets. A fine display may be kept up from April to November by starting them in batches at different periods, retarding some, and by seedlings for late-blooming. Single-flowered varieties are the showiest, but a houseful of choice and refined doubles is an acquisition to any establishment, and give most satisfaction under glass. Some of the more floriferous and pendulous or drooping-habited kinds, taking after the style of B. boliviensis, are very effective when grown in pots or baskets and suspended from the roof of the house. Even here choice kinds may be used having medium-sized and not too heavy flowers. Some are decidedly fragrant, and if encouragement is given to their selection, a scented strain might yet be a reality. Marechal Niel and Fragrant Rose have this quality.

For exhibition purposes, Begonias are most effective in tastefully and judiciously arranged groups; but even here quality is liable to be overlooked in preference to mere display. Only medium-sized plants are capable of being worked into arrangements of this kind, with dwarf and erect flowering kinds for the front. Large specimens are not so popular as they might be, for they are bold and effective when well grown and tastefully manipulated so that staking is hidden.

There is a promising future for tuberous Begonias as bedding plants. Pelargoniums in a wet season grow like cabbages, but they are as green as kale. Whether it rains or shines, Begonias flower abundantly and are always dwarf and short-jointed out of doors. Of course, to make sure of a good display early in the season, tubers at least one year old should be employed. They may be started sufficiently early in pits or heated frames, so as to have them fairly into growth, but not showing bloom, and hardened off so that they may be planted out about the beginning of June. They do not experience the check that the plants in bloom are certain to get if the weather immediately after should prove cold or dry. Seedlings selected as to color are most suitable for this purpose; and those of stiff, erect habit and free-flowering character produce the finest display. Double varieties are more adapted for pot work, as the flowers are generally too heavy to withstand the effect of storms, of wind and pelting rain. They will yet be more extensively grown for indoor decoration, while the single varieties will be grown in thousands for bedding purposes. Figures would fail me to give exact data as to the numbers I have disposed of since I commenced the culture of this noble race of plants; they are to be computed by hundreds of thousands, if not millions. About half a million were pricked off into boxes last spring, and two-thirds, consisting of seedlings of single kinds, were planted out in June, and the remainder double varieties, besides several 100-ft. houses, filled with pot plants and several ranges of frames.

PROPAGATION.

There are at least four different methods of propagating tuberous Begonias, namely, by seeds, cuttings, leaf cuttings (as in the case of B. Rex), and division of the tubers. I approve of the first two methods only, for they are certainly the best, most practicable and profitable. Increase by cuttings is essential only in the case of choice standard kinds, to be preserved true to name. These are mostly used for pot culture, and as the most improved or advanced types of the race from whence the finest strain of seeds is derived. Young shoots from near the base of the plants make the best cuttings, and may be inserted any time during the growing season, but the earlier the better they will root and form tubers. A few of the young growths that arise from the tubers in spring may be taken; but the fact must not be overlooked that to take the same liberties with them as with dahlias would be ruinous to a good display of bloom on the old plants for a season. The cuttings should be inserted singly against the side of thumb pots, in a compost consisting of loam, leaf-soil and sand, in about equal proportions, and plunged in cocoanut fibre in the bed of a propagating pit or frame, and shaded till they have emitted roots, and may be grown on if required for late-blooming. The young plants should be kept in the cutting-pots till the following spring, and this is the more essential in the case of late-struck cuttings, but where practicable the latter should be potted and kept growing.

Propagation by seeds is at once the most legitimate, speedy, profitable, and certain mode of increasing this class of Begonias, either for pot-culture or summer-bedding. There will always be a certain amount of speculation with regard to the color, habit and character of the seedlings the first year; but, if derived from a good strain, they seldom fail to give satisfaction, and may be assorted for future work as they come into bloom. They may be sown at almost any time of the year, according to the convenience and requirements of an establishment. For my purpose, I find that the third or fourth week in January is the most suitable. Those who have a sufficient command of fire-heat will find it advantageous to sow early in the year, as the seedlings are less liable to damp off than when they are germinated in May, June or July.

The seeds are sown in square, round, or oblong pans or shallow, wooden boxes, in a compost of light, porous material, consisting of flaky leaf-soil, a little loam and plenty of sharp sand. This is mixed and used in a rough state, with some finely-sifted material on the top to form a smooth and level seed-bed, which is pressed firm, watered, or more suitably dipped, and then the diminutive seeds carefully sown. The pans or boxes are placed in a temperature of 65° to 70°, with more bottom heat. The seedlings are pricked out into other boxes from time to time, as soon as they can be handled, with a finely pointed piece of wood, divided at the point to lift the seedlings. As they germinate very unequally, and in succession, the work of pricking them off employs some men and boys for weeks together. When the seedlings begin to get crowded, they are transplanted into other boxes at a greater distance apart. By the middle of May they are ready for hardening off. During the first three weeks of June, a staff of men and boys were constantly employed in planting those now in the open ground. By this time a large proportion of them had commenced to bloom, and several thousand of the most promising doubles, some of them gems, were transferred to 48 size pots, and placed in new houses especially built for their reception.

The ground in which the seedlings are planted out is heavily manured, and roughly dug up to the action of frost in autumn. Old tubers intended for bedding out should be started about the last week in March or the beginning of April; small-sized pots will be quite sufficient for them. A warm and showery month of June, and rather drier weather in July and August, are most favorable to Begonias in the open ground.

POT PLANTS.

One-year-old tubers are the most generally useful for pot work; but those of two or three years' growth make the finest specimen plants. When four years old they degenerate, some sooner, some later; hence the necessity of raising young plants to keep up the standard of perfection.

The first batch of plants may be started about the end of January or the beginning of February, and they will flower in April or May according to the amount of sunshine they enjoy or the artificial heat used. Successional batches of tubers may be put into heat during March or April to flower in June or July, and be it observed that the more slowly they are brought forward the more sturdy and durable will they be. Put them singly in small pots proportionately to the size of the tubers, in a compost consisting of equal parts of fibrous loam, leaf-soil, and sand in a rough or lumpy condition. Press the soil rather firmly if short growth and a long season is desired, merely covering the top of the tuber. Stand the pots on a bed of cocoanut fibre or plunge them in it, and keep the temperature of the house at 65° to 70°. Should the soil be dry at potting-time give a watering; but after that it should be applied with discretion till the plants begin to grow freely. Tubers that have been wintered in pots may be put into heat, watered a little, and afterward damped down with the syringe till they start into growth, and then repotted into suitably smaller sizes. Light is of great importance in the early months of the year, and it is all-important that the plants should be kept as near the glass as possible after they have started into growth, to encourage a short-jointed and sturdy growth.

Repot the plants before they become root-bound, and as the season advances and the temperature outside becomes milder, gradually give more and more ventilation, for upon a cool and airy atmosphere a great deal of success in Begonia culture depends. Low, span-roofed houses give most satisfaction. The soft and watery tissue of Begonias soon responds to favorable or unfavorable conditions; therefore let them have a house to themselves where possible, and no make-shift permitted. The smaller plants may be grown on the side-shelves on ashes or cocoanut fibre, while all the larger and taller specimens may be elevated on shelving—staging tier above tier in the center of the house and near the glass. A free play of air amongst the foliage keeps it fresh and healthy, and a dry atmosphere prevents the spotting of either flowers or foliage, as the weather gets warm about April and onward. More or less shading during the heat of the day will be required after that month. When the plants have finished flowering, or become useless for decorative purposes, stand them out of doors in a sunny position, but sheltered from wind, and keep them watered till the leaves show signs of decay, after which water may gradually be withheld till the tubers ripen and the stems drop away. Remove them indoors on the approach of frosty nights.

THE FIELD.

The Government Crop Reports.

WASHINGTON, D. C., Sept. 14, 1892.

TO THE EDITOR:—It is due to the truth of crop-reporting history, the honor of the farmers' department of the Government, and justice to myself, to correct some recent statements which do not possess the slightest color of verity. While holding the voluntary testimony of the largest commercial organizations of the country to the utility and value of our crop reports, and receiving the compliment of the adoption of our system by several foreign governments, we find occasionally individual speculators, whose deals have disastrously collided with the truth, who vigorously anathematize our work and enter the columns of newspapers, and even the corridors of Congress, with the most absurd and reckless misstatements concerning it. It is not strange, therefore, that injurious misconceptions should occasionally be entertained by public men at variance with fact and enlightened public opinion. I desire to correct authoritatively certain erroneous views recently promulgated.

It is gratifying to notice, however, that in both Senate and House less than a half dozen persons indulged in any criticism of the crop reports.

The following letter to Hon. W. B. Allison corrects errors of statement made during the consideration of the Agricultural Department Appropriation bill:

J. R. DODGE,
Statistician.

MR. DODGE'S LETTER TO SENATOR ALLISON.

DEAR SIR:—I see in the *Congressional Record* statements made during the debate on the proviso in the Agricultural Appropriation bill relating to crop reports, made under misapprehension of fact, from hearsay, which do great injustice to the Department of Agriculture, and injuriously misrepresent its work.

The Senator from Missouri stated that, in the administration of Commissioner Coleman, "one of these monthly reports in regard to cotton was prematurely published, and got into the hands of speculators in New York, and thousands of dollars were made by it." While pretenses of advance information by speculators are of monthly occurrence, frequently half a dozen contradictory versions of the coming report in a single hour, they are rarely ever near enough to the official report to admit of the slighest suspicion of possible leakage. No cotton report, either under the previous administration or of any other administration since the time of Isaac Newton, ever was "prematurely published," and this is the first time I have ever heard of "a long and elaborate inquiry to ascertain how the information got out." Some months since a similar charge was made in a St. Louis paper, of premature publication in Liverpool. In response to my inquiry, Mr. Ellison, the great Liverpool authority on cotton, said there was a pretended advance estimation, but no attention was paid to it, as it was a monthly occurrence, and never proved to be a forecast of the reports. In this case he said it was three points out of the way. It is a further conclusive fact that no report, whether of cotton, wheat, corn or any other crop, has ever been proved to have been prematurely publshed or sent in advance by any person from the Department of Agriculture.

Relative to the Senator's statement in regard to the so-called controversy with a local cotton exchange, the facts referred to *were not stated in any crop report*, but were quoted from the crop movement records of the New Orleans Cotton Exchange and Ellison's crop consumption of the world, and were presented as a plea to American planters to save themselves from ruin by a reduction of acreage, which was so far heeded, as indicated by my June report of acreage, as to show an apparent reduction of more than three million acres, a result which, if true, will be worth many millions of dollars to cotton-growers.

A third statement of the Missouri Senator was that in one of the monthly reports of 1881, I "undertook to say that the tariff was necessary in order to exclude foreign agricultural products coming into competition with those of the United States." It is only necessary to say that at the date mentioned I was not statistician of the Department of Agriculture, or in connection with it in any way whatever.

In his further remarks, he says: "What right has he to say that there is an overproduction of 2,000,000 bales of cotton a year?" No such statement was made in the March report, or in any report ever made since the creation of the Department of Agriculture. That figure is distinctly given as the approximate accumulation of *two years* in the general and primary markets of the world, as shown in commercial records open to all intelligent readers.

The Senator from Minnesota states that during the past three years, "with two or three exceptions," these reports have had the effect of depreciating the value of farm products. Other influences may depreciate the value of these products, but a true presentation of crop conditions never. The reports are uniformly conservative, more frequently underestimating than overestimating crop products, as shown by records of production and distribution. The State statistics of North Dakota made the wheat crop last year more than that of the Department by ten million bushels, and those of South Dakota were also in excess of our estimate for that State. I state deliberately from careful examination of Department correspondence and published statements of grain-buyers, during the past three years, that in the autumn, when buyers are laying in their supplies for the season, their estimates generally average higher than ours; and further, that often in the spring and early summer, when the mills are seeking markets for accumulated stocks of flour, the same persons who thought the official figures were too low in the fall are persuaded in the spring that they were really too high. I have thus always found that their crop opinions varied with the seasons, especially the seasons for buying wheat and selling flour.

That speculators, and not the Department of Agriculture, are the cause of reduction in prices, was convincingly exemplified in the reception of the April report, when condition of wheat was reported at 81, the previous estimate being 85, tending to advance of prices, which immediately followed, until the bear operators got in their work and hammered down prices several points before the close of the day. The influence of speculation is thus frequently mistaken for that of the crop report.

But the most extraordinary series of misapprehensions came from the Senator from Arkansas. He brings up the apocryphal tobacco stories that have so long been the stock in trade of opposers of official crop reports, and says first that they refer to the crop of 1886. It was that of 1887. His next statement was that our report made the crop of Kentucky 92 per cent of that of the year before. It made, on the contrary, an acreage of 78 per cent and a condition of 77, which reduced the promise to 60 per cent instead of 92. (See report of July, 1887, page 305.) Six weeks later a report of continued effects of drought made a prospect of only 44 per cent, which I explained was in part real reduction and partly due to panic. The result was like the fulfillment of prophecy. The Kentucky Commissioners of Agriculture, from assessors' returns, ultimately made the crop 55 per cent of that of 1886, while mine was a million pounds less. The best census ever taken in any country could not come nearer the actual condition, as it was on the 1st of July, 1887, than my report of that date. It was an unprecedented reduction, truthfully reported, and a wonderful vindication of our crop-reporting method under difficult circumstances.

In the statements that follow, relative to the investigation, of which I have a perfect recollection, I scarcely recognize a point that is correct.

It is only necessary to say, relative to the assertion that the census of 1870 showed an acreage of cultivated crops less than that of these estimates, that *no areas of crops of any kind were reported by the census of 1870!* The areas of 1880, the first ever reported, were greater in most crops

and greater in the aggregate than Department estimates, sustaining the conservative character of our reports.

Finally, the statement concerning hay in Minnesota, showing a remarkable drop in aggregate tons of hay, comes from a separation of hay grasses, the bulk of it being the former, of wild grass from that of cultivated, and this fact is noted in the report in which the change is made, that for 1887, page 559. The debate has presented a series of blunders, which were not those of the Department, which a careful study of the reports should have prevented. Their publication should be regretted, but not by myself, provided the public can see the truth as it exists.

Washington, July 2, 1892. J. R. DODGE.

California Agriculture.

The following stirring tribute to California agriculture and rural life is from the opening address of President Cox of the State Board of Agriculture during the recent State Fair:

I believe that rural life offers the broadest and most certain field for the attainment of happiness and for the maintenance of a spirit of independence. As Washington Irving beautifully wrote: "In rural occupation there is nothing mean and debasing. It leads a man forth among scenes of natural grandeur and beauty; it leaves him to the workings of his own mind, operated upon by the purest and most elevating of external influences. Such a man may be simple and rough, but he cannot be vulgar."

In imagination I hear the prayerful hymn sung by priestly voices a century and more ago for the divine guidance of California in the path of peace and happiness. The prayer has been answered. The grape festoons the lifted hills, the orange blossoms scent the air from Shasta to San Diego. From north to south, from east to west, we see a succession of orchards and vineyards, and the valleys answer to the mountains in one unbroken strain of harvest song. Every known product of temperate and subtropical zones are produced in the State. California's chiefest and most profitable industry is, and will be horticulture. Her destiny is determined. The effect upon the intelligence and morals of the coming generation is not difficult to foretell. Even now the taste for horticulture is a distinguishing trait of Californian character. The professional man, the scholar, the business man and the man of leisure, own fruit farms, and are bringing to their culture the highest trained intelligence.

Horticulture demands the highest skill, and the field of experiment is wide and unlimited. The State recognizing this, excels any other State in the munificence of the appropriation for the encouragment of refined culture of the soil. The State Agricultural Society, the State Board of Horticulture, the Viticultural Commission and 38 district associations, and the Agricultural College of the University, are the recipients of the State's bounty, and are engaged in their several spheres in the promotion of horticulture and viticulture. The United States have established under the supervision of the University, five experimental stations in the State. These bodies are doing a permanent and encouraging work, by educating the public taste, by experiment, and by disseminating literature of the highest excellence. The effect of these forces will be to exhalt horticulture to the dignity of both a science and an art, in the pursuit of which will be found the greatest reward both of fame and wealth.

It is simply amazing the progress which has been made in the past ten years. I quote from the report made by Gen. Chipman to the California State Board of Trade in 1891, in which is shown the fruit shipments to the East in the year 1891. [Heretofore published in THE RURAL.]

The value of the fruit produced annually is only a portion of the material wealth which has accrued to the State by the subjection of the soil to fruit culture. But for the tree and the vine the waters of the Sierra Nevada and Madre would still run unvexed to the sea. The plains of the San Joaquin would turn a brown and arid face to the sun—a sphynx-like face—unanswering to the voice of man, and southern California, the wonderful land, would be the inspiration of an ode to solitude. How changed the scene wrought in a few years! The rivers of the two Sierras pour their affluent waters over hill and plain. Schools, churches, cottages dot the land, trees and vines bear precious fruit, the meadows are in bloom, the hum of industry vibrates upon the blossom-scented air, and men come and go,

> "And talk of the grass, the flowers and trees;
> Of the singing birds and humming bees."

There is a lesson in this transformation, which should be learned by northern and central California. Wherever irrigation has been practiced, population and wealth have increased. The census of 1890 shows that since 1880 Merced county has increased in population 43 per cent; Kern, 75; Tulare, 118; Los Angeles, 204; San Bernardino, 225; Fresno, 238, and San Diego, 306 per cent. All of these counties are fruit-producing counties and have ample irrigation facilities. In the northern part of the State the soil is as fertile and the climate as balmy as the soil and climate of the counties named, and the water supply is as abundant, yet many counties have almost stood still while in others the ratio of increase has been very small. This condition demands our serious consideration.

Irrigation is the key to open up your locked treasures. The fable of Midas, who turned into gold whatsoever he touched, is, with us, no longer a fable. Water, water is the Midas. Whenever it has touched the land, that land has turned to gold, a mine of wealth. The people of this portion of the State should organize. You want more population, new blood and new capital. The people of the South understand this question. I glory in their enterprise, I am proud of their success, but as a Californian, interested in the North as I am in the South, I wish to see all parts of California move along in the path of progress. Do as they do, organize, form county boards of trade, support the State Board of Trade and send your literature to the people of the East to apprise them of the advantages of your respective sections. Turn the rich, fertilizing waters of the Sacramento, American and Yubas upon the foothills and plains, believe in your abundant resources and in ten years your population and wealth will have increased a hundred fold.

The chart for us has been unrolled. In lines of living light we read the history of this goodly land. Under the standard of religion the holy fathers took possession To-day the church spires point the heavenward way wherever men assemble. The waterways which the novitates dug have fallen to decay, but in their place is seen the largest irrigation system on the continent. The trees the fathers planted with hope, and perhaps in doubt, have multiplied by the million. The hymn of petition, a thousand years old, sung in faith a hundred years ago, has been answered. The people in California are treading in the paths of peace. The Eden is here. The paradise of earth is here. Here, if anywhere, engaged in rural pursuits men and women will attain their highest intellectual and moral plane. "The common need, the neighbor touch, the brotherhood of prayer will make a man more precious than the gold of Ophir." In the path pointed out to us let us go and fulfill our destiny. The golden age, if ever it comes, will come to those who, as the ancient warriors did, restore their strength by the touch of mother earth. In this faith, with reverent heart, let California for time to come repeat her birthday hymn, "Veni Spiritus Creator."

HORTICULTURE.

Another Method of Curing the Lemon.

Daniel H. Burnham, one of the pioneers of Riverside and the first one there to introduce and propagate the Lisbon lemon, gives his method of curing them for market, which we copy from the Riverside Press, written by Mr. E. W. Holmes, who is himself an orange-grower and expert.

"The lemons were picked from the trees in November and later, as soon as they were large enough, and while still unchanged in color. Many at that time were still entirely green. Without waiting for the sweating or shrinking as many do, Mr. Burnham immediately wrapped them. He lined his picking boxes with manilla paper and after putting in a layer of wrapped lemons, laid a sheet ot manilla paper over them and so continued until the box was filled. The ends and top were also covered with paper of the same kind. These boxes were then stacked fourteen high in a large shed, one side of which is entirely open, the building being shaded by large trees. There these have stood untouched all through the winter until opened for packing at the end of seven months. Strange to say there was not a loss of three per cent of the fruit of the earlier picking, and not over five per cent of the latter. The lemons when opened, were all changed to a beautiful lemon color, and, as we have said, were the firmest of any long-cured lemons we have examined. The only ones not up to the general standard of excellence, were those in the top boxes, which were, in some cases, slightly shriveled. The specimens we saw were beyond question in the finest condition of any we have ever handled, and we claim to have shipped a good many fine lemons ourselves.

I is needless to add that the fruit was clipped and handled with the greatest care, for no lemon will keep which has not been so treated, nor will fruit keep such a length of time where it has been subjected to any great amount of frost."

The Los Angeles *Cultivator* adds the following. A quantity of his lemons cured in this way were recently shipped to Eveleth & Nash, commission merchants of San Francisco, who pronounced them "gilt edged, and without doubt the finest lot of California production ever sent to this market," and add that "we would certainly advise all who contemplate raising the lemon, to adopt this variety and follow this method of handling." The prices paid Mr. Burnham were the highest paid for any lemons, and warrant the belief that lemons of this variety, treated as Mr. Burnham treats them, will always command the first place in any market. Mr. Burnham says, also, that all the lemons that bear the name of Lisbon are not of the true variety, as many so-called are decidedly inferior to that introduced by him.

The Squirrel Problem.

Pomogadel writes as follows to the Contra Costa *Gazette*: The careful observer who is familiar with the locality has probably noticed that the ground squirrel is to be found about the base of Mt. Diablo. As a matter of fact, it is one of the richest squirrel sections in the State. The fruit orchards of the surrounding country in some directions are beginning to encroach upon the lower slopes of the mountain. Young fruit trees and squirrels do not harmonize. One or the other must give way or discord prevails.

Our Supreme Court has decided that squirrels cannot be exterminated and they have refused to sustain an ordinance of our Board of Supervisors requiring every landowner in the county to clear them off his own land. With all due respect to the book-learning and legal knowledge of the Court, we know better. We have cleared the last one off too many times to leave any doubt as to the ability of each farmer to take care of his own crop of squirrels, and at much less cost than it would be to let them live. The squirrel crop of the farmer who kills off his own squirrels is not the ones that cause him trouble and expense. It is those that come in upon him from his neighbors who will not take care of their own.

Under this state of affairs, what is the fruit-grower to do? Some of the almond orchards near the mountain are protected with a tight board fence six or eight feet high, let into the ground, and with strips of old tin at the top so bent that it is impossible for a squirrel to pass over it. Others station men or boys with shotguns to patrol the frontier and make it so warm for the intruders that they are willing to retreat. One orchardist was located where he was exposed on three sides to the grain and hill land about him. We can imagine his deep breath of relief when another orchard was planted on one side of him, at the thought that that front was now protected and would cause him no more trouble. The line fence between the two places was soon taken down and the neighbors joined forces in a war against the pests. The first of the two neighbors protected his frontier with a fence of posts and stringers with four-foot shakes put on perpendicularly, extending into the ground four or five inches. The same fence was extended around two sides of the new place. Holes were dug with a flaring opening, forming an entrance from the outside going down and under the ends of the shakes and coming up with a sharp turn into the orchard. The size of the holes was only large enough for one squirrel to pass through. These holes were about 50 or 100 feet apart along the whole line of the shake fence. Upon the inside of the fence a warm reception was prepared for the intruder. At the exit from each hole into the orchard a steel trap was placed with arms wide open to receive the visitor. A strong cord was so arranged that the squirrel could not carry the trap into the enclosure, and the hole was not large enough to admit of its being pulled through outside of it, so all that Mr. Squirrel could do was to stay right there and block up his doorway and prevent his neighbors from passing him.

The traps were visited conscientiously every morning, the dead taken out and the traps reset. For months the catch was from 25 to 75 a day upon the two places. With the holes arranged as here described, the squirrels did not scale the fences to any extent. The result of his treatment has been that now, in the fall of the year, scarcely a squirrel is to be seen around the outskirts of these two places. This is one of the items of cost to be met by the fruitgrower in the Mt. Diablo section. He feels that he has reason to congratulate himself that even at this cost he has secured so effective a means of protection against this pest.

Gophers are quite friendly, and sociable, too, in some sections. Upon one new place that we know of, containing 75 acres near the creek, over 1000 have been caught this season. This means an expense of $150 or $200 for this item alone. After the squirrels and gophers are disposed of, there still remain slugs, saw-fly, red spider, scale, frost, strong winds and morning-glory to contend against. The fruitgrower surely has his obstacles to overcome in order to make a living for himself and family much the same as the balance of mankind.

THE VINEYARD.

Feeding off Grape Leaves with Sheep.

The following statement by Newton B. Pierce, agent of the Division of Vegetable Pathology, Department of Agriculture, Washington, D. C., is sent to us by J. R. Williams, U. S. Weather Bureau Observer at Fresno:

In relation to the destruction of vine leaves by sheep, I should say that the leaf, as should be generally known, prepares the food which nourishes the growth of the entire vine, roots and all. The leaves have their cells well supplied with chlorophyll corpuscles, and the chlorophyll corpuscles are the bodies in which the starch required for the nourishment of the plant is formed.

As long as the green color of the leaf is retained, its functions are as yet incomplete.

When the leaves are yellow, the chlorophyll corpuscles have been destroyed and the leaf tissue is of no further value to the plant.

To remove the leaf from the plant while the chlorophyll corpuscles are still green and forming starch is to take from the plant such an amount of the stored-food supply for next season's growth as would be formed in the leaf between the time of artificial removal of the foliage and the time of its natural fall. Hence the earlier the leaves are removed the greater will be the loss to the plant in the matter of food for the next spring's growth.

To correctly estimate the actual loss to the vine or vineyard in productiveness by the premature removal of the leaves, so that it may be reduced to dollars and cents, is certainly beyond our ability at present, but I feel sure that it will eventually amount to much more than the gain arising from rental, and manure left by sheep feeding on the ground. This matter should be reduced to the gain or loss per vine. The gain per vine from the pasturage of sheep upon the ground, it will be seen, is a ridiculously small amount, an amount so small that the least loss sustained from the productiveness of the vine would be almost sure to exceed the gain.

It is a common practice in Europe to girdle the new cane, in the spring, just below the lowest bunch of forming flower clusters, for the purpose of retaining in the new branch and forcing to the opening flowers a greater amount of nourishment than those flowers would otherwise receive. This process strengthens the flowers and their organs of fecundation, and by this means a more perfect and general fertilization of the flowers results.

Now, at Fresno, coulure has caused a loss of over 50 per cent of the first crop of grapes in the Muscat vines the present season. The leading cause of this loss is imperfect fertilization of the flowers.

If in Europe it is often found necessary to aid the flowers in fertilization by stimulating them as here indicated, as a preventive of coulure, it would seem that the loss of food supply sustained by the vine through the pasturage of sheep in the vineyard before the leaves have completed their season's functions may, in some degree at least, often

result in increased coulure the following season. Should this be the case, the loss would be many times the gain arising from the pasturage of sheep in the vineyard.

NEWTON B. PIERCE,
Special Agent.

[This statement is interesting and,we are disposed to believe, in the main correct, so far as possible injury to the vine by premature removal of leaves is concerned.

As for the argument by analogy with reference to the girdling of vine-canes in Europe and the bearings of it upon the removal of leaves by sheep, it is of questionable pertinence. As stated, the European vigneron girdles the young cane to retain all the downflow of sap to the production of fruit above the girdle. In so doing he robs the stock of the vine. The man who allows sheep to eat the leaves while still green does the same thing exactly, if he produces any effect at all; any effect the leaves produce upon the cane itself goes for nothing, because the cane is all cut away at winter-pruning. The European vigneron robs the stock to help the fruit on the new cane; the Californian robs the stock to make wool and mutton. In both cases the stock of the vine is theoretically injured, whether it is practicably or appreciably injured in either case is still a question.

For these reasons we object to Mr. Pierce citing European girdling which robs the stock as reason why Californians should not do something else which also robs the stock or permanent portion of the vine. If he had stopped his statement with the claim that premature removal of the leaves probably reduces the storage of useful strength in the vine-stock, it would have been stronger than after he adds an argument of analogy in which whatever analogy there may exist tends toward the converse of his proposition.

Still his closing paragraph (all but the first clause with an "if") is probably pertinent; coulure may be caused by weakening the vine by feeding off the leaves. This claim is capable of demonstration locally by observing the crop of an acre of vines which has been fed off as compared with a similar acre not thus treated; or, better still, by the crop of several acres of each treatment. But we fail utterly to see what relation there can be between girdling a cane for the benefit of clusters then in sight above the girdle and a prescription which shall exert an effect upon a cane which is not produced until the following season.—ED. PRESS.]

JAMES PORTEOUS of the Fresno Agricultural Works has just completed and shipped from Fresno to Spain, by way of New York, two of the latest improved raisin stemmers of the largest size, with a capacity of from five to seven tons each per day. The same shop has made stemmers for the Australian market, and has successfully competed in that field. It had scarcely been expected that this young city, only a few years old, and scarcely past the experimental state so far as the raisin industry is concerned, would be able to teach the Spaniards how to stem raisins and furnish them the machinery to do it with, when Spain has been in the raisin business from time immemorial. But all these things have come to pass.

POULTRY YARD.

A California Egg Farm.

A representative of the *Cultivator and Poultry Keeper* recently visited Mr. S. H. Olmstead of Artesia, whom the paper calls the "White Leghorn King." There were hens everywhere, nestled under the shade of a weeping willow which stood near an artesian well, flowing, not with milk and honey, but with nature's best gift to man, pure, fresh, cool water, in abundance. They were under the big gum trees, running about the yard, all talking in that hen language which betokens happiness and plenty of eggs.

"Just keep your eye out for any sick or drooping ones," said Mr. Olmstead, and we did so, but not one was seen. "Well, it is time to feed the chicks," so we went through the yard into the nursery.

The writer has seen several chickens in his day, but never saw such a fine lot or such a numerous family in California. Just fancy, ye chicken cranks, over 850 little fellows, all hatched during the hottest season, and not a droopy one among them—all chirping, busy, and as lively as—well, as healthy chickens should be.

Mr. Olmstead hatches with hens, and would not have an incubator about him. He has an ingenious arrangement for the setting hens, and each one has comfortable quarters, semidetached villas, so to speak.

The hatching-pen or yard is all portable, detachable and easily cleaned. They are 16 feet long, divided into 14 compartments, and consists of a sittinghouse with a tight side and roof, the latter being arranged so it can be lifted from the outside, thus giving easy access to the biddy. In front of this is a yard or run, four feet long and the same width as the nest—13½ inches. In this is placed the feed and watertrough, and the hen is kept right there until she hatches her brood, when two broods are given to one hen and the other is discharged.

Now, the one selected for the mother is placed in her own house, which is made of an oil or gasoline can, three shakes and three laths. Here she stays until her family is ready to "scratch for themselves."

By this system, Mr. Olmstead has extraordinary success with chickens, and any skeptic who claims that they cannot raise chicks in California, or during the warm weather, had better go and see Mr. Olmstead's place and study his method.

Leaving the young ones, we then went to the yards where the laying hens were. These at present number 750, all White Leghorns, and are housed in 28 pens, 16x24 and 16x22. made of six-foot laths, each yard having a house attached. These are made of shakes and there are 22 houses, 16 single and 6 double ones. The single ones are 8x4 feet, and the double ones each 4x6 feet. Everything is kept clean, roosts being detachable, nest-boxes easily cleaned and all joints and cracks kept thoroughly sweet and clean by a liberal use of Little's carbolized sheep dip, a splendid disinfectant.

At the far end of the yards was the "hospital," and there were about 20 inmates, but not a sick one. The writer suggested that the name should be changed to "infirmary," as the patients were all suffering from barley-beards or foxtail which had got in their mouths and worked up into their heads. These hens were laying from 10 to 12 eggs per day while under treatment, and some of our poultry-keepers would be glad to have their flocks as healthy as these.

Mr. Olmstead's breeding stock consists of fowls from Knap Bros., and are a fine lot.

Many readers will be interested to know of the methods and variety of food used. This consists mainly of wheat, corn, alfalfa, bran and meat. The meat is cooked and mixed with the bran. Sometimes a very little cayenne pepper is added to the mixture, and cracked shells and charcoal are always where the fowls can get at them.

The egg product at the time of writing is about 15 dozen per day, this in the height of moulting. In the laying-season the average is 50 dozen, and a ready market is had for both eggs and broilers.

There is on the place a clover-cutter (not a toy, but a first-class article), bonemill, egg-cases, etc. These are kept in the "shop." There is a small house, barn, granary with 200 centals of corn stored away, wagon, cart, three horses, etc.

The ranch, which is all under fence, consists of 40 acres of level, rich loam, A No. 1 alfalfa land, and is at present planted to corn. There are about 100 fruit trees of all kinds.

THE STABLE.

The Pneumatic Tire.

No man who has ridden in the ordinary sulky, with non-elastic tires, needs to be told that the jarring and jolting increases as speed increases, and this, of course, is wearing on both horse and driver. The pneumatic tires act as both cushions and springs, obviating the jolting and jarring, and they skim over the surface of the track in an elastic and rebounding style that favors speed and comfort. The ball-bearing gearing reduces the friction between the axle and the hub. In the ordinary wheel the whole interior surface of the hub fits upon and presees against the axle, thus, of course offering resistance when the hub revolves at every part of the surface of the axle. The ball-bearing hub is made with a concave interior face, and into this channel are placed steel balls, which, in motion, revolve against each other and against the axle. With only one point of the ball at once touching the axle and the balls on either side of it, the surface of contact and friction is also greatly reduced, and this decrease in resistance necessarily means an increase in speed. As in all really great and practicable inventions, the mechanical principle of the ball-bearing hub is simple.

The horsemen owe this improvement to the discoveries and improvements of bicyclists. Although the bicycle was invented in France 70 years ago, the perfected racing bicycle is an evolution of the last five years. The original bicycle was a crude and heavy affair, but with both wheels of the same size, as are those of the fastest bicycles of today. About 25 years ago a French inventor, Michaud, conceived the idea of making the front or driving wheel much larger than the other, and this, with the improved principle of crank motion, brought the bicycle into wider utility. Later India rubber tires wire used to relieve jolting. Later the ball-bearing improvement was made, and in 1890 the superiority of the pneumatic tire was demonstrated. The pneumatic tire, which is simply a large India-rubber tube filled with compressed air, "produced a marvelous improvement in speed at both short and long distances, whether on path, road or grass," to use the words of an authority on bicycling. In 1891 the bicycle record for a mile was reduced to 2:20¾, and this year it is already cut to 2:11.

The idea of the pneumatic or bicycle sulky "caught" at once, and the new sulky has attained success so instant and complete that the airy vehicle of the gossamer wheels seems doomed to soon disappear from our great trotting tracks. Almost all, if not all, the winners at Washington Park trotted and paced in the pneumatic-tired sulky, and certainly all the fast miles were made with the improved racing vehicle. Its success is now beyond the region of debate. Its steadiness and freedom from vibration or wabbling, its virtue of taking the turns at high speed without "slewing" and thus interfering with the horse's balance and stride, the reduced axle-friction due to the ball-bearing device, and the elasticity and lightness of motion produced by the pneumatic tire, are combined advantages which at once commend themselves to practical horsemen, and all the drivers with whom we have conversed are unanimous in praise of the pneumatic and ball-bearing sulky, the concensus of opinion being that it means a gain of about two seconds in a mile in speed. Conservative Budd Doble expressed the opinion that it added speed to harness racing, that it was easier to ride in, and an admirable vehicle for a heavy track. Ed Geers says: "The bicycle sulky enables a fast trotter or pacer to go faster, and two seconds a mile is perhaps a fair estimate on the increase of speed it gives." "My experience," said George Fuller," is that the bicycle sulky is an easy rider, and as it decreases slewing on the turns, I am led to believe that it increases speed about two seconds a a mile." George Starr agreed that "it certainly adds to the horse's speed and the driver's comfort," and pronounced it "an admirable addition to trotting-track improvements," and A. T. Miller said he "would not drive a horse in a race to anything but a bicycle sulky." And so on, *ad infinitum*, the knights of the whip and rein praise the pneumatic tires and ball-bearings.—Exchange.

THE IRRIGATIONIST.

Results of Irrigation.

WASHINGTON, Sept. 15, 1892.—The Bulletin of the Census Bureau, just issued regarding irrigation in the arid States and Territories of the West, contains information likely to be of value to business men interested in land enterprises in that section of the country. It would appear that the results of irrigation have been reasonably satisfactory and that the irrigated lands have paid a fair profit. Of the 124,808 farms enumerated in the arid region in June, 1890, 52,584, or 42.13 per cent, contained land on which crops were raised in 1889 by the artificial application of water, the entire area of land irrigated being 3,564,416 acres—20.72 per cent of the total area of the 52,584 irrigated farms, 9.66 per cent of the total area of the whole number of farms enumerated, and about one-half of one per cent of the total land area of the arid region. To this must be added 1552 farms, containing 66,965 acres irrigated, in the western parts of North Dakota, South Dakota, Nebraska, Kansas and Texas, designated, for convenience, the subhumid region, where irrigation is slowly making its way, as a method of agriculture always advantageous but not always absolutely necessary.

The average value of the land irrigated in 1889, with the improvements thereon, is found to be $83.28 per acre, and the average value of products for the year stated $14 89 per acre. By correspondence with over 20,000 irrigators, fairly distributed through the arid and subhumid regions, it has been ascertained that the average first cost of irrigation is $8.15 per acre, and the average value placed upon the water rights, where separable from the land, $26 per acre, or over three times their original cost. The average annual expenditure for water, as distinguished from the purchase of water rights, is $1.07 per acre, and the average cost of the original preparation of the ground for cultivation, including the purchase of the land at the Government rate of $1.25 per acre, is $12.12 per acre. By applying, with necessary modifications, to the enumerators' returns the average obtained for each separate State and Territory, it has been found that, in round numbers, the total investment in productive irrigation systems utilized in 1889, in whole or in part, was, up to June 1, 1890, $29,611,000. Their value at that date was $94,412,000, showing an apparent profit of $64,801,000, or 218.84 per cent. In the same manner the aggregate first cost of the irrigated areas, with their water rights, not including the farms of the subhumid States, has been ascertained to be $77,490,000, and the value of the same on June 1, 1890, $296,850,000, showing an increase in the value of land and water rights of $219,360,000, or 283.08 per cent. In other words, the land irrigated in 1889 was worth nearly four times what it cost, no allowance evidently being made for failures. The total expenditure for water, including the maintenance and repairs of ditches, in the arid States in 1889 was $3,794,000, and the total value of products $53,057,000. The number of artesian wells used in irrigation in the arid and subhumid regions in June, 1890, was 3930, constructed at an average cost per well of $245.58, and giving an average discharge of 54.43 gallons per minute. The area of land thus irrigated, averaging 13.21 acres per well, amounted to 51,896 acres, or 1.43 per cent of the total area of irrigated land in the arid and subhumid regions.

The following table shows the extent of irrigation in States and Territories in the arid region :

States and Territories.	Area irrigated, acres.	Per cent of entire land surface of State.	No. of farms enumerated.
Arizona	65 821	0.(9	1.448
California	1,004 233	1.01	53 269
Colorado	890,735	1 34	16,505
Idaho	217,005	0 40	6,654
Montana	350,582	0.38	5,664
Nevada	224.403	0.32	1,341
New Mexico	91.745	0.12	4,174
Oregon (a)	177,944	0 39	10,513
Utah	263 473	0.50	10,757
Washington (b)	48 799	0.23	11,237
Wyoming	229,676	0 37	3 246
Totals	3,564,416	0 50	124,808

(a) 16 Eastern counties only.
(b) 13 Eastern counties only.

The following table shows the total approximate cost of productive irrigation systems and their value in 1890 :

States and Territories.	Cost.	Value in 1890.	Increase.
Arizona	$465,000	$828,000	$363,000
California	13 005,000	39,446,000	26 441,000
Colorado	6,369 000	25 350,000	18,981,000
Idaho	1,029,000	2,860,000	1,831.000
Montana	1,623,000	5,273,000	3 650,000
Nevada	1,251,000	3.714,000	2,463,000
New Mexico	512,000	1.679,000	1,167,000
Oregon	826,000	2,755,000	1,929 000
Utah	2,780,000	7.072,000	4,292,000
Washington	197.000	642 000	445,000
Wyoming	1,281,000	3,801,000	2,520,000
Subhumid region	273,000	992,000	719,000
Totals	$29,611,000	$91,412,000	$64,801,000

The following table shows the first cost of irrigated areas, including water rights and their value in 1890 :

States and Territories.	First cost.	Value June 1, '90.	Increase.
Arizona	$1,114,000	$3 204,000	$2,090,000
California	31,814.000	150,635,000	118,821,000
Colorado	16,140,000	59,696,000	43,556,000
Idaho	3,320,000	10 091,000	6,771,000
Montana	4,968,000	17,354,000	12,386 000
Nevada	3,905,000	9.200,000	5,295,000
New Mexico	1,701,000	4,677,000	2,976,000
Oregon	3.288,000	10,143,000	6.855,000
Utah	7,022 000	22,198,000	15,176,000
Washington	759 000	2,440,000	1 681,000
Wyoming	3,459,000	7,212 000	3.753,000
Totals	$77,490,000	$296,850,000	$219,360,000

THE HOME CIRCLE.

By and By.

Written for the RURAL PRESS by ISABEL DARLING.

She stood and sighed to the heavy air,
Alone, as now at the door she stands;
But then unbound was her sunny hair
And small and white were her dimpled hands.
The clouds were gathering overhead,
The hot tears filling the baby eyes.
"The sun will shine by and by," we said,
Yet still unhushed were her sobbing cries.
"But by and by is so long to wait!
I'll be asleep it will be so late."

The years have passed with their sun and shade,
Time's clouds been gathering overhead;
Grief, care and labor their marks have made,
Yet tears are slower, impatience dead;
And through the tempest again she hears
The words unheeded in younger days—
"The sun will shine by and by." How clear,
How strong is her trustful gaze!
For by snd by is not long to wait,
She'll be asleep but 'twill not be late.

Aunt Hannahran.

Written for the RURAL PRESS by KATHERINA BRYANT NOLAN.

(*Continued from last week.*)

Uncle Hezekiah Stebbins was laid to rest with all the ceremony due to the husband of Aunt Hannahran, and the town turned out in honor of this one whom death had so unceremoniously and ruthlessly torn from his accustomed haunts. The old bell of the meetinghouse where he was wont to worship when in life, tolled a requiem as he was carried out to the ancient churchyard, followed by a long line of mourners. When all was over and the four members of the Stebbins' household returned home they found a gap; an empty chair stood by the hearthstone, but each one did his best to wear a cheerful demeanor. Finally Paul said:

"I must be off in the morning, mother."

Paul, I wish you'd come home now your father's gone," she said, laying her hand on his arm, gently.

"If you wish me to do so, of course I will; but I've worked hard to get up to where I stand in the store and it will be hard to throw it all up."

"I know that, Paul, and I suppose I ought never to have thought of such a thing," she said, with a sigh.

"I'll tell you what I've been thinking of, ma; now, supposing you were to sell the farm and come to live with me—you and Carrie. I—"

"Sell this farm!" Aunt Hannahran echoed in amazement. "Sell this farm, where I've lived all my life with your father! I won't sell the farm, and I won't live in no city, I can tell you! You can't teach an old dog like me any new tricks," and Aunt Hannahran hunted up her blue stocking and fell to knitting furiously, as a relief to her excitement and indignation.

Paul glanced toward Carrie. She stood with widely-opened eyes and parted lips, but as Paul colored and looked embarrassed, at the warmth of his mother's refusal to listen to his suggestion, she smiled slightly and then went out of the room. Carrie was amazed, and not without good reason. Paul had been Aunt Hannahran's ruling passion. She had bitterly lamented the separation from him and had never seemed reconciled to it, and to witness so decided a change of sentiment staggered her.

The subject was not again referred to, but Paul volunteered to return shortly, after a hurried look at his father's papers, to assist his mother in the attention to them that was necessary to satisfy the demands of the law, and the house seemed lonelier than ever when he was gone.

Carrie Defarge was a distant relative of Uncle Stebbins, and she knew nothing of her father excepting that Aunt Hannahran considered him a renegade and without the pale of Christianity, and, as she was a woman who held decided opinions upon all things, great and small, her opinions were not to be controverted.

If Aunt Hannahran would have told just what awful thing she knew, and then have been done with it, Carrie would have been truly and humbly grateful; but this nameless, intangible scandal hung over her and around her, and always followed her at every turn; a cloud of dreariness. The blossoms along the pathway of life bloomed brightly, yet, when she reached out and gathered them, they turned to thorns and thistles.

Aunt Hannahran came of good stock; those ancestors of hers had been God-fearing people; all "meeting-folks," and Aunt Hannahran saw nothing but stumbling blocks for Carrie in all the foibles the other young folks were allowed to indulge themselves in, so the girl finally settled down into a routine precisely similar to that her patroness adhered to. Her mother had died at her birth, and a neighbor in the little seafaring town where she first saw the light of day, so long as the remittances came from her father, took care of her. When she was seven years old, the money ceased to come, and the woman forthwith packed her clothes and sent her to Denham.

"Hezekiah Stebbins—he's related to yer ma, an' he's well-to-do. He can tek care of ye an' bring ye up ship-shape like. Mind now and behave yerself. 'Tain't likely he'll stand no tantrums, and ye needn't come sailin' back to me no ways, so yer mind yerself," the woman had said to this little mite of a girl.

"Hezekiah Stebbins had been amazed when this small parcel was set down at his doorstep, bag and baggage, but he had never entertained any idea of turning her away. He had trained her to be useful to him, and she and Paul had been inseparable, and Carrie Defarge always remembered one little thing that seemed strange to her. She had been looking at a small miniature of her mother one day, when he came along and took it out of her hand. He had looked at it a long time and then said:

"She was a gay gal in her day and the pictur is very like her." Then he had sighed deeply.

"Oh, tell me about my mother, Uncle Stebbins; no one has ever told me of my mother!"

"Some other time, some other time," he had gruffly said; but Carrie had never broached the subject again and the knowledge had died with him, and she felt his death more keenly than any one else, as she was dependent upon him for any feeling of security or any foothold in the Stebbins family.

When Paul walked in on his return to Denham, the sitting-room, living-room and kitchen combined was cheerful enough, and Aunt Hannahran sat with the homespun stocking in the little chair near the window. She seemed to be in a brown study. Her face expressed less placidity, and it struck Paul with a feeling of dissatisfaction; this indefinable change in her was vexatious on many accounts, but chiefly because of Carrie. All the chivalry of his nature was aroused at the forlorn condition of this girl; if she had been born a boy, why then she could have gone into the world and have been independent; every cold word from Aunt Hannahran struck a chill to his heart, if she had only known it. He had guarded his secret well, and his mother had not really been unkind, only her idea was, as she expressed it once herself:

"Gals hev to be brought up strict in these days." Yet Paul had always found it hard to endure, but for Carrie's sake he had borne it silently, and now he felt that it had been a mistake and that he should have been her champion. He heartily wished that he had declared himself and become an acc pted lover during his father's lifetime As he had not done so, he now planned out his campaign carefully. The goddess must be appeased, that was quite evident, and this was not an easy task as long as her opinions must be most deferentially treated, and she seemed so much changed and hardened.

"Paul, Aunt Huldah will never consent to it!" Carrie was standing in the doorway of the barn straight from a forage after eggs high up in the haymows. One feathery piece of hay had managed to get into the tresses of her hair, and Paul carefully pulled it out. It was the day after his return.

"That is not the question, Carrie."

"I think it is, Paul. Surely, you will not marry without your mother's consent," she said, shaking her small head with the air of a sage. She looked very pretty as she stood there, the sunlight falling on her slender figure, her hair blown about by the fresh breeze, and just enough color in her cheeks to enliven her face and soften it into a fresh beauty. "I don't think Aunt Hannahran will really want to part with me. I thought perhaps she would feel different now that Uncle Hezekiah is gone, but I think she depends on me, Paul. I think so."

Paul made no answer to this. He took Carrie in his arms, and before he released her, she owned to her abiding love and promised to marry him, always providing Aunt Hannahran proved agreeable; yet she was a little angry at so summary a proceeding on his part and taxed him with boldness after the manner of women.

After dinner, Aunt Hannahran settled herself to her knitting by the western window, and Paul busied himself at the desk with the ledger, wherein his father had left many an enduring memorial to his capability and thrift and good management. Thanks to these traits, his widow was left amply provided for. She sat meditating a little while, and then she said:

"I know what you want to say, Paul, an' I say don't say it!"

"But ma"——

"You've been brought up with Caroline and you've made up your mind to hev her. I've seen a good many matches in my day, an' helped 'em along, but this one's not to my likin', so don't talk to me, Paul."

Paul scrutinized the ledger calmly, his pale face growing whiter and sterner-looking all the while, and after a pause, he answered gently:

"I am sorry you take that stand, for I have indeed made up my mind to marry Caroline. She insists that I shall gain your consent, so consequently your attitude is a disappointing one for me."

Aunt Hannahran looked at her son in a puzzled way, but she made no reply. When he took this grandiloquent way with her, she hardly understood what he meant; yet she dimly realized that Paul had developed into a man of a world of which she knew nothing, and it made her all the stronger in that determination of hers to prevent a marriage between this simple country-bred maiden and her son.

So Paul went away again, and things went on in the same quiet fashion at the farm. Jabez managed affairs outside, under Aunt Hannahran's tongue, grown caustic with the sudden accession of power, but he did not appear to mind it and plodded on day after day in the good way Uncle Stebbins had laid out for him while he was yet living.

Jabez had a freckled, good natured, large face and an abundance of bushy, red hair. He wore a full beard and that was red; still he was not a repulsive looking man by any manner of means. He now developed a lively sense of the ways of Providence, and the stern necessity of preparing for death, and always stood in readiness to "hitch up" and take Aunt Hannahran to prayer meetings, sewing society gatherings, and he never failed to grace the Stebbins' pew at all of the Sunday services. This was much more than Hezekiah Stebbins had ever done, and although Aunt Hannahran kept on abusing Jabez to his face she held him up as an example when his back was turned.

Carrie was now left much alone, but the trouble in regard to Paul and herself made this solitude agreeable; it was easier to bear when no eye was there to see every changing hue upon a face which grew fairer as the days went on into months, and it was a year and more since Uncle Hezekiah Stebbins had met with that untimely death and Paul was coming home. The house was in a bustle preparing for his proper reception. He was to bring a friend with him and Aunt Hannahran was in a "stew" over her best cap, with its lavender ribbons, for fear Paul might think it too gay, and solicitous about the baking which the deep, cavernous brick oven held.

"Did you put plenty of sugar in those pies, Caroline," she asked for the hundredth time, as she anxiously examined the effect of the cap in the glass. She had latterly called the girl Caroline altogether. Carrie answered patiently and monotonously, as she was aware that Aunt Hannahran never once heard the answer, since her own thoughts led her so far away from the subject in hand. The pies came out in prime and luscious array, filling the house with savory, spicy odors, and at last Paul and his friend were driven into the yard by the indefatigable Jabez.

They were good-looking young fellows and sprang out of the wagon with much laughter and strode gaily into the house in search of the women folks. They staid in Denham two weeks and attended some kind of a party nearly every night, taking Carrie with them. Aunt Hannahran made no objections to this and noticed with joy that Andrew Blunt and Carrie seemed very much taken with each other. What a fine thing it would be to make a match for Caroline with this likely, shrewd young man and leave Paul free to look higher for his bride. It certainly would be a move worthy of the brilliant record of the past and stop these scandalizing tongues that whispered the tale of Paul's attachment and Aunt Hannahran's opposition to the match. She had lost prestige among the young people on account of it, but this would set the matter straight without any humiliating concession upon her part, and so she laid her plans carefully. As she foresaw, Andrew Blunt was quite agreeable to them, but he made the proviso that Caroline should consent to marry him before he ever broached the subject to her.

"I'll fix all that," she answered, "and if you say so you can be married at Christmas"

"All right," said Andrew, "that'll suit me to a T, but I am afraid she don't like me. I think she likes Paul; but Paul is so close mouthed. Do you think he cares for her now!"

"Oh, they've been brought up together and of course they've ways like to brothers and sisters."

Andrew asked no more questions, but when he went away it was an understood thing that they should come back at Christmas for the wedding. Paul seemed to take it hard, but he told his mother that of course Carrie had a right to choose for herself. Aunt Hannahran entered into the preparations necessary for this event with tremendous energy and the house was in a state of ferment for the next month.

It seemed hardly a day before she watched the young people drive off to the minister's house, this trio reinforced by Pa Goodwin's eldest daughter. Carrie looked very proud and pale and reserved, but she had been unable to withhold her consent under Aunt Hannahran's nagging. Then she liked Andrew, and if she must have somebody and Paul had ceased to care about her, why Andrew would be her choice. He was so much like Paul. So they drove on and were ushered into the cold, tomb-like parlor at the parsonage, and Carrie was so flustered that she noticed nothing until Paul stooped and kissed her just as the white haired parson was about to congratulate her.

"Paul," she gasped, and then they all laughed.

"This is a week of weddings," said the parson. "I have another to-morrow. I advise you and your wife to remain and witness the ceremony and be introduced to the bridegroom." Paul looked at him in a questioning way and he said:

"Ask Aunt Hannahran; she knows!"

"O Paul, Aunt Hannahran will never forgive us. I don't dare to face her," the trembling bride said as they neared the farmhouse on their return.

"Andrew and I will face Aunt Hannahran," Paul said, gravely. So these two conspirators sat down and carefully unfolded the conspiracy to Aunt Hannahran.

"So Carrie and I are married, mother," Paul said, at last. Aunt Hannahran was equal to the occasion and she said, as she knitted away on a blue stocking that was the counterpart of the one on the needles at the beginning of this tale:

"Yes, and I guess Jabez and I—"

"What about Jabez?" Paul asked, quickly, a sudden look of suspicion dawning in his eye.

"Well, Jabez is a likely man, ef I do say it, an' he's kept things agoin'—"

"Yes!"

"So," said Aunt Hannahran, defiantly, "me and Jabez are agoin' to git merried tomorrer. Didn't the parson tell ye? I told him to." Paul laughed long and loud and then he said:

"We'll have to shake hands on it; we are quite—," but Aunt Hannahran maintained her dignity and not a muscle of her face relaxed as she went on with her blue stocking.

[CONCLUDED]

About Us Poor Unfortunates.

Written for the RURAL PRESS by MAID OF ALL WORK.

A San Francisco literary man, truly a matchless critic and reckless wit, has announced to the breathless public that women have no brains. This startling announcement was a surprise to many people, but we are forced to believe revelations that come from so great an oracle. It has been some time since this important truth was made known, yet we see no change made, or about to be made, in the relations women bear to the rest of the people.

Helpless young maids are still turned out by impecunious fathers to make their own livings, bright girls are sent to normal schools, mothers are held responsible for the conduct of sons, wives are required to economize, and widows are expected to support their children.

Women still make dresses, trim hats, and sell merchandise for self support.

This is barbarous and inhuman. Now that the truth is known, these customs should be discontinued. Women having no brains, they should be taken care of like cows and canary birds.

Men should no longer say to their wives: "Great heavens, Jane, can't you keep the grocery bill within reason?" How can she? They ought not to trouble their wives with such questions as "Mary, shall we buy this horse, or that house?" or "Molly, does my collar fit just right?"

All this is outrageous, cruel. We don't expect hens to spin, or cows to read. And yet we require women, who have no brains to do all sorts of difficult and remarkable things.

The same oracle definitely announces that American women can't cook. This is but a logical conclusion, and should have been made known long ago. A great many

women don't like to cook, and if they could be relieved from their responsible duties in kitchens, from any cause or excuse, they would celebrate a jubilee.

Let the oracle lay to and drive this new discovery into all masculine skulls. Let us have no more trash on the dining table, no more brainless combinations. Drive the women out of the kitchen, clear away the mess, and let us have something to eat at last. Shades of New England and Virginia, who haunt and inspire us, go back into your graves, you are but a delusion.

A bright woman in the East has said that the solution to the temperance problem is to let men do the praying while women do the voting. The men would not have to pray long it is obvious. The world would wag on very well then.

Suppose women did vote, and did have to carry the sword to sustain that power. Conclusively, we would arbitrate to keep our women at home. Instead of fighting to preserve our homes, the nations would sue for peace to preserve the homes. This would be "The White Crown," international arbitration and peace, and as good a way as any to get it.

She Didn't Go to the Poorhouse.

The county-house wagon drew up at the old farmhouse door in the early morning light, and the poor overseer got out and knocked on the door with the butt end of his whip.

"Hey," quavered a thin voice within, "who's there?"

"We've come for ye, mother," said the overseer.

"Who calls me 'mother'?" asked the tremulous voice, and then the door was opened by a shaggy hand, and an old woman, dressed in shawl and hood, stood in the doorway.

"I 'member," she said, slowly, nodding toward the wagon "it's the selecman, an' I s'pose they know best; but if Jim knew—if Jim knew that his poor mother was goin' to the poorhouse, it 'ud break his heart."

"Are ye ready, mother?" asked the man, gently.

"Yes, I be. I ain't slept sense I heard ye were comin' for me. It's all right, an' I don't blame ye; but it's hard to hev worked all yer life an' raised a family, an' then die in the poorhouse. It'll a-most kill Jim when he knows."

The man on the doorstep coughed and turned away, pretending to examine the wisteria vine that blossomed over the door. Not for worlds would he have told her that he was only carrying out Jim's orders against the time he should bring his wife to the farmhouse.

She came out slowly, looking with vague, wondering eyes at all she was leaving—the trees she and Harvey—that was her husband—had planted when they were young, at the bed of cinnamon pinks, and the little lilac bushes at the gate. She stopped and gathered some of the fragrant southernwood—"old man" they called it—and then she looked up at the window of one room—bridehood, wifehood, motherhood, angelhood, that meant to her. Little Carrie had died there, Harvey had looked his last in the heaven of her own eye there. That was nigh on to forty years ago. Why, where was God this fair summer morning that he had forgotten her and let her go to the poorhouse?

"Hurry up, mother," said the man, gently. "We're to call for another paup—passenger a bit farther down the road. 'Taint much you're a-leavin'," with a short laugh. He was trying to make the best of it for her.

He helped her into the wagon, and in the golden light of another new day, they moved on, jogging along the country road, sweet with the scented life of nature, until they reached the stile that led into the old graveyard, where the sentinel stones shone among the trees in their strange, dumb witness.

"Oh, ef you don't mind—if I just could say a word to Harvey, it would help me so much, an' I wouldn't be long—I wouldn't keep you waitin'."

"All right, mother." The overseer jnmped out and helped her to the ground.

"Don't be long; there's a good soul," and he lit his pipe and talked to the driver, apologizing for his weakness.

"'Taint like as if she were a common pauper," he said. "There are folks here as remember when she was the belle of the county, and they do say it is this son Jim that has run through with the property, an' is gettin' her out of the way so he won't have to pay for her keep. I wouldn't tell her for a house and lot."

"She wouldn't believe yer if yer did," said the driver, seriously. "But she's taking her time in yonder."

No. It was not time she was taking, but eternity. When the overseer went to look for her she lay with her withered cheek pressed to the moss-grown stone that bore the name of her husband, and a smile that seemed to be a reflected glory from Paradise lit up her peaceful face. It had come to her in one brief moment, the assurance that she would not go to the poorhouse, and then—she had gone home.—Exchange.

How Whittier was Discovered.—Mr. A. L. Haskell, of Boston, who is past eighty years of age, and is probably the only man now living who was a schoolmate of Wm. Lloyd Garrison, gave me a graphic account of "how Mr. Whittier was discovered." As I remember the story, it was as follows: Mr. Garrison was editing the Newburyport *Free Press*. The box into which correspondence and articles for the *Free Press* were put was at the bottom of the stairs, out of sight of the editorial rooms. Anonymous poems came into this box week after week. The poems had the true ring, and so much merit that the editor earnestly, but vainly, sought for the author. There was a drug store opposite. Its door and windows overlooked the editor's box. An agreement was made with the druggist to keep an eye on that box, and to let it be known if he saw any one who was not among the regular contributors to the paper put in an article, or letter. They had not long to wait. Before many days the druggist saw a man at the box, who put something in and immediately left. He at once reported the fact to the editor. Mr. Garrison left his types, hastily put on his coat, and followed the retreating author. On overtaking him, he saw a tall, lean, bashful-looking youth, who, being confronted with the poem he had just left in the box, confessed, with blushes, it was he who had put it and others there. After some conversation, they went together to Mr. Whittier's father, who had been inclined to consider his son a lazy youth who "would do nothing but write verses." Thus was John G. Whittier discovered; he who later was to fire the nation's heart with the spirit of freedom, and to nourish in the popular heart the love of all tender and sweet and beautiful things.—Lucy Stone, in Woman's Journal.

Young Folks' Column.

My Little Sister.

When I was six years old, I was sent on a visit to my grandmother. It was very pleasant for the first day or two, but after that I longed unutterably for home.

"I suppose she could go back to-night," said grandfather.

"Oh, to-morrow will be soon enough," said grandmother.

"Day after to-morrow will be most convenient," said Aunt Martha. "It's not a matter of the slightest importance, anyway."

That was always Aunt Martha's way—to insist that matters which were fraught with weal or woe to me were not of the slightest importance!

The next day was so long that I felt myself growing perceptibly aged. Toward its close I comforted myself by thinking that when I did go home my mother would be sitting as usual in her little, low sewing-chair. She would draw me to her and kiss me and ask me if I had been a good girl. Always when I went away she told me to be good, and when I came back she asked me if I had been good.

My father would make no reference to goodness. He would say, "Hullo, chipmunk! What are you doing back here? I thought I put you off these premises once." And all the time he would hold me tightly in his arms, and I would put my face in his neck and think what a funny father he was, and how kind and nice he was.

I would tell them how homesick I had been, and when they said they could just as well as not have sent for me before, I would say, "It is not a matter of the slightest importance." Then they would be much surprised.

The next day after this long one that I have told of, as grandfather's hired man was going to the town a few miles beyond our house, it was arranged that he should "drop" me on the way. When he discovered how eager I was to reach home, he said it was very injurious to horses to make them trot. It put them into a fever. A slow walk was the best thing for them.

This made me so angry that I slipped out at the back of the lumber wagon, and ran home with all the speed I could muster. Arrived there, I flew panting through the lower part of the house, and then rushed in dismay to the kitchen.

"Sally! Sally!" I screamed at the cook; "where is mamma? What has happened?"

Sally deftly lifted me by one arm, and set me with unnecessary force on a chair.

"Stop your noise," she said. "Your mother is sick, and you're not to disturb her."

I sat still for a few moments, trying to realize the condition of affairs.

"Well, I declare!" exclaimed a familiar voice in the doorway; "if here isn't papa's girl." I sprang into papa's arms.

Papa led me very softly into mamma's room. I was not allowed to rush to her nor to hug her at all; and then they showed me a tiny face in a flannel bundle beside her, and said that was my little sister!

I looked at it first with pure wonder that any one could be so small and yet be alive. Then a pang of jealousy shot through my heart. This was my father and mother, and I had expected that they would be overjoyed to see me! Instead, they scarcely noticed me, but were gazing with unconcealed pleasure at this ugly, red-faced little interloper.

I went to bed with a strangely desolate feeling. There was no father to throw pillows at me and pretend that I had broken some of his bones when I threw them back again; no mother to tuck me in, and ask me to wake her next morning with a kiss.

My father played no more games with me. It would disturb the baby. My mother told me no more little stories. Her time was absorbed by the baby. Even cross old Sally said, "Bless its little heart!" when she spoke to the baby.

Once, when the baby behaved rather worse than usual, they sent off in haste for the doctor, and afterward when I had a bad toothache they said that was what I must expect when I got my feet wet every day.

At another time, papa, who was going away in a great hurry, exclaimed in a loud, laughing voice, "Only ten seconds for refreshments!" And as he spoke, he kissed mamma and the baby in the hall, and forgot all about asking where I was.

My heart ached and ached. I shut myself in my room, and cried desolately. I thought of every friend I had in the world, and it seemed to me that every one had been deliberately unkind to me. Cronk, the gardener, was a possible exception. I dried my eyes and went out to him with the hope that he would say something consoling.

"Mr. Cronk," I said, by way of drawing him out, "you are very handsome and clever, aren't you?"

Cronk straightened his commonplace person with a sigh.

"Ah, Miss Ellie," he said, "you ought to have seen me when I was a young man!"

"Well, anyway," I said, "I wish I was good-looking and clever both."

"Oh, you're pretty passable, said Cronk.

Somewhat discouraged, I went back to the house, and determined that if nobody cared for me I would care for nobody. In a few days, as a result of this decision, my mother had a serious talk with me. She told me how much I had grieved her and my father by my naughty behavior, and that it was an awful thing for a person to let the Evil Spirit get control of her thoughts and actions. Afthr a long talk, she told me to come and kiss my little sister, and I refused.

"It would only be a Judas kiss, mamma," I said. "I don't really love her. She has spoiled all my pleasure in life. And I'm not going to pretend to love her when I don't."

"Then you must go to your room, and ask God to give you a new heart," said mamma sadly. Some days afterward she told me my father wished to see me alone in the library.

I felt myself growing cold and leaden all over. I seemed to have lost all love for my father and mother, and as for my baby sister, I simply hated her. Perhaps my father thought he could scold me or whip me into pretending that I loved them. Well, he just couldn't, then! I was sure of that. I would not yield. I clenched my teeth, and locked my lean little hands together, and went down to my father. After I came in he closed the door behind me, and then he showed me a sad, sad face.

"Darling," he said, "I want to ask you to forgive me. I've been thinking it all over, and I see that ever since baby came I've been a poor, cheap, second-rate kind of a father to you. I didn't realize it before, but but I blame myself for all this coldness that has come between us, and—"

"But with a loud sob I had dropped before him with my face on his knees. He drew me up to his breast. "Oh, no, papa!" I said, "it isn't you at all. I have been wicked and cold and hateful—"

He stopped my lips with kisses.

"Don't you dare slander my chipmunk," he said, and I only tightened my clasp on his neck and gave a long, long sigh of relief and rest and blessed joy.

Since then I have always been very fond and proud of my little sister.—Ethelwyn Wetherald.

Domestic Economy.

English plum pudding.—One cupful of melted butter stirred into two cupfuls of fine cracker crumbs; add this to one quart of boiling milk and stir till thick. One cupful of sugar, one-half cupful of molasses, two teaspoonfuls mixed spice, salt, two cupfuls of stoned raisins, one cupful of currants, one-quarter of a pound of citron, one-half cupful of wine or brandy, rind and juice of one lemon. When this is cool, add six eggs. Put in a dish in the oven and cover at first; when it is set, stir up thoroughly. Let it bake slowly by an afternoon fire four hours, or it can be boiled. Whipped cream makes a good sauce.

Lemon Custard. — Six eggs, beaten separately, three teacupfuls of sugar, one-half cup of butter, four cups of water, five tablespoonfuls of cornstarch, two large lemons. Slice the lemons, and put them in the water to boil till the strength is extracted; then dip them out and drain the water. Beat the yolks, butter and sugar together, and pour the water over them; return to the jar, and when ready to boil, stir in the starch; beat the whites to a stiff froth, and stir in lightly after it is taken off the stove.

Red or Black Raspberry Jam.—To use one-third currants to two-thirds raspberries is better than the berries alone. Mash the fruit well and let it boil 20 minutes; weigh the quantity; allow two to three pounds for the kettle to weigh, and to every pound of fruit use three-quarters of a pound of sugar. After this is put in let it boil till, by taking some out on a plate to try it, no juice gathers about it. Then it is ready to put away, as you would jelly, in glasses, or stone jars are nice.

Corned Beef Hash.—Chop sufficient cold corned beef to make one pint, it must be chopped rather fine, cold boil potatoes in the same quantity, mix meat and potatoes together, put them in a saucepan with a tablespoonful of butter, teaspoonful of onion juice, a cup of stock, and saltspoon of pepper; stir constantly but carefully until it just comes to boiling point; serve at once on buttered toast. Water may be substituted for the stock, but of course the hash will not be so good.

Cabbage.—Cut the cabbage in two, or, if large, in four pieces, and well wash and boil it quickly in plenty of water, adding salt and a small piece of soda; when about half done, drain it in a colander and put it into fresh, boiling water; when soft enough, drain and press the water away; chop it, adding a little butter, pepper and salt; put it into a hot pan, and turn it out on a vegetable dish.

Gooseberry Water.—Put one pint of green gooseberries in a porcelain-lined kettle, add two quarts of water, a small piece of green ginger cut into slices, cover the kettle and boil until the berries pop; then stir for a moment, stand aside and pour carefully through a flannel bag, sweeten with loaf sugar when cold, add a small amount of cracked ice, and it is ready to serve.

Hashed Potatoes.—Cut the potatoes as for a pie; put them in a pan with a little chopped onion, pepper and salt; add a little butter, allowing about a half-ounce to each pound of potatoes, and quarter of a pint of water; cover the pan and let them stew moderately about 30 or 35 minutes.

ROYAL

BAKING POWDER

Absolutely Pure.

A cream of tartar baking powder Highest of all in leavening strength.—*Latest U. S. Government Food Report.*

AGRICULTURAL NOTES.

CALIFORNIA.

Butte.

ONE MANAGEMENT.—Oroville *Mercury*: Geo. F. Ditzler, manager for A. T. Hatch, is one of the busiest young men in the State. He has charge of 1600 acres at Rio Bonito, 540 at Lincoln, 320 at Woodland, 320 at Red Bluff, and 2300 at Cottonwood, making a total of 4180 acres. He has a foreman at each place and is constantly on the go, supervising them all. Nearly all this land is set or being set to fruit under his supervision, employing a large number of men. From the Rio Bonito orchards he has shipped many carloads of fruit this season, and is now engaged in gathering almonds and other late fruits. He is now putting up gas engines to run machinery for shelling almonds.

Contra Costa.

TULE FRUIT. — Antioch *Ledger*: We were shown this week some beautiful apples and Bartlett pears grown in the tules on West Island. The fruit is very large and sound, and free from all parasites, and is proof of what the tule lands can do. West Island is not leveed and is flooded, and yet there are a few stray fruit trees on the island that tell their own story. They are wholly neglected, and yet they are as full of fruit as they can hang every year, and it is very large and clean. There is no doubt that if the tule lands contiguous to Antioch were reclaimed and planted in Bartlett pears that they would pay interest on a valuation of $1000 per acre. The problem of reclaiming these lands is not a serious one. They are too near the bay to be menaced by flood, and tide is all that has to be contended against.

GRAPES MOVING.—Martinez *Democrat*: The shipment of grapes has commenced in earnest, and load after load is being hauled to town and shipped to San Francisco and various other places. Wine grapes are bringing good prices, some of our vineyardists getting $20 per ton.

Colusa.

BIG BEETS.—Colusa *Herald*: W. R. Mumma, the Grand Island farmer, recently harvested a crop of beets grown on 2½ acres of land on the island. The yield was 160 tons to the acre, and Mr. Mumma is of the opinion that the average weight of the beets was 50 pounds each.

Fresno.

FRESNO RAISIN NOTES. — Fresno *Expositor*, Sept. 23: Now that the raisins of the first crop are on the trays, or about all on the trays, a tolerable estimate of the total yield can be made. It is found that it is not the same in all the vineyards. In some the total yield of the first crop will not be more than ten per cent below that of last year, while in the other vineyards it is reported as much as 40 per cent, or possibly still more in a few isolated cases. Some find that their grapes have yielded better than they had hoped in the early part of the season, while others are disappointed because the yield has fallen short of their expectation. One of the worst complaints heard is that the weather for a few days past has been so cool, with so much dew at night, that the grapes have not been drying as well as they should. There is no doubt but that they will cure in good shape if the rains do not come and catch them. But this fear of an early rain enters into all the vineyardists' calculations. If the weather remains clear for ten days or two weeks yet, the first crop will then be about all out of the reach of calamities on account of bad weather. About that much time will be necessary to cure the first crop, which is now on the trays. Some, indeed, must have three weeks yet, but that is only a small part, and includes only the latest picking of the first crop. Of course, a large part of the second crop will be picked for raisins, providing the weather is such that they can be cured. But even if the weather should be all that can be desired, there would still be much of the second crop that will not be made into raisins. Many of the vineyardists have already arranged to manufacture these grapes into wine and brandy, thinking there is more clear profit in this than in raisins, when all the risk is taken into consideration. One company here has already engaged 50 carloads of the second-crop grapes, to be shipped north for the purpose of making wine and brandy. Other shipments on a large scale are also bargained for, and the result will be that many of the late crop will be disposed of in a similar manner.

VINEYARD PESTS.—*Expositor*: The vineyards on the White's bridge road, a few miles west of this city, are being ravaged by a species of worm, which is devastating the foliage of the vines. The intruders closely resemble the common tomato-vine pests, but are of a darker color. Much apprehension is felt by the vineyardists that these pests will give them much trouble later on. Already a number of vineyards infected present a very desolate appearance.

Inyo.

A LARGE DIVERSIFIED CROP.—Independence *Index*: Tim Madden and Louis Frevert had the Vagt place at Camp Independence leased this season. Sixty acres were under cultivation, and from this they harvested 70 tons of small grain, seven tons of corn, three tons of potatoes and 50 tons of alfalfa hay. One field of 30 acres yielded 43 tons of wheat and barley. And it is a fact that this season has not been as good as usual in this section.

Kern.

THE RAISIN OUTLOOK.—*Californian*: It is reported that the Rosedale Vineyard Company will have at least 150 tons of grapes this season, and that there will be from 150 to 200 tons more in the Rosedale colony. The promise is that this year's product will be of the very first quality, and that a superior lot of raisins will be packed at the Sumner warehouse this year. J. D. Browne's vineyard is expected to yield a ton of raisins to the acre.

ALFALFA.—Bakersfield *Californian*: E. Chauvin's place near Delano is watered from an eight-inch artesian well, 704 feet deep. This gives a flow of 3½ inches of water, all of which runs into a reservoir, from which it is drawn for irrigation purposes as it is needed. Three years ago, when the alfalfa was first seeded in a small field which he has, the yield was about one ton to the acre, but it has kept on increasing until this year the product is really marvelous. After a cutting, the alfalfa grows from an inch to one and a half inches a day, and when cutting time comes around, it takes four horses to pull the mower with ease. The record thus far this season is this: April, 2 tons per acre; May, 2½ tons; June, 3 tons; July, 2¾ tons; August, 2¼ tons; September, 2 tons—a total thus far of 14½ tons per acre, with at least two more cuttings, and probably more, to hear from. Its growth has been so rapid that it is now cut every 20 days or thereabouts. There are thousands of acres in that vicinity which, if irrigated, will yield just as well as the land in question. This alfalfa is sold to sheepmen and others, and brings about $8 a ton. This high price is of course due to the location of the field like an oasis in the midst of dry and unirrigated grazing lands, and would not obtain if the thousands of similar acres were also changed into alfalfa fields.

FINE CROP OF CORN.—Bakersfield *Gazette*: C. A. Maul has about 80 acres of Egyptian corn growing on his Rosedale place, and the growth speaks volumes for our valley. The land has never been irrigated. Last year he raised an excellent crop of Indian corn on it, and will gather a first-class crop off it this fall. The ground, which some years ago was remarkable only for its extreme dryness, has become moist by reason of seepage from the Calloway canal, and fruit trees or anything else will grow there with no irrigation whatever.

AN ALMOND GROVE ON THE WEED PATCH.—*Gazette*: J. E. Smith, the grandfather of the Weed Patch section, is as enthusiastic regarding his favored locality as ever before. He will put out a number of peach pits this winter, and plant for 100,000 almonds. He prefers hard-shell variety, Mr. Smith informs us that he has an orange tree that shows a growth of ten feet and two inches this year, and if any one can beat that, he will have to show the goods.

Lassen.

A BIG YIELD.—Susanville *Advocate*: Last year George Bantly cleared the sagebrush from some 60 acres of his land, lying between the Elledge and Newhaus places at Howard Flat, and below the Hutchinson & Leavitt canal. He broke the land up, plowing and harrowing it thoroughly, and this year put it in wheat. From these 60 acres of virgin sagebrush soil, irrigated from the Hutchinson & Leavitt system, he has irrigated a crop of fine, heavy wheat, averaging 40 bushels to the acre. The simple naration of these facts seems to us to indicate as clearly as may be that the only fertilizing agencies our sagebrush lands require, to make them yield more abundantly than the lands of the great wheat counties of the State, are labor and water.

Los Angeles.

THE CAHUENGA VALLEY.—Colgrove Cor. L. A. *Express*: The crops of the season in this valley are pretty nearly all gathered. Rain is now needed to lay the dust and to revive some of the drooping trees, and especially the orange, which seldom gets water here except that which falls from the clouds. No water is as yet brought in this valley for irrigation purposes. Several schemes are talked about and some are very promising. The one that proposes to bring the water from Tejunga is believed to be the most practical. It is said there is in that quarter an abundance of pure mountain water, ever running to waste, and it is not far to bring it nor difficult for it to be brought to supply all this country to the west, south and southwest of Los Angeles, comprising more than 100,000 acres of the best land in the world. A supply of irrigation water would be a godsend to this region of country, and enable the farmers to raise two or three crops a year instead of one, as at present. All fruits grow abundantly here, but it is found to be the natural home of the lemon It is a fact not generally known that the lemon tree is much less in need of water than the orange. Lemons of the very best quality can be grown here in great abundance. The trees begin to bear in two or three years, and from that time on are very profitable. This business has spread much during the last two or three years. Hundreds and hundreds of loads of melons have been taken to market, but the ground is still almost covered with them.

GREAT FRUIT SHIPMENTS.—Pomona *Progress*: Returns from the shipments of green fruits to the East from Pomona have been coming fast for two weeks, and a better lot of deciduous-fruit growers have never been known here than those who have disposed of much of their crops in this way. Green-fruit shipments in the new refrigerator cars, and by the late modes of fast transit, are established successes. Next year, when the World's Fair in Chicago will make the greatest market ever known for our fresh California fruits, Pomona valley will be decidedly "in it." S. N. Androus reports that from the Dole & Andrews ranch there have been shipped 50 tons and 264 pounds of pears. The net returns from the fruit have been $62 a ton. The Phelps pear orchard of four acres yielded 23 tons that were sent to Chicago in the green-fruit shipments. The pears sold for four and five cents a pound, and the net returns have been $1486 for the four acres. The Golden Cling peaches from I. E. Woodward's place were sent as green-fruit shipments, and netted the grower $7.50 a tree. The trees are seven years old. At that rate, an acre of Golden Clings would be worth $750 per acre.

Mendocino.

HOP NOTES.—Ukiah *Dispatch and Democrat*: The hop pickers have all returned to town. A. S. Berryhill has left at this office as fine a sample of hops as we have ever seen. His entire crop this year is of splendid quality. Zach Bartlett finished picking yesterday. He informs us that he has about 3000 pounds more hops than last year, and that in quality they are the best he has ever raised. Thos. Parsons of Largo reports hop-picking completed in that vicinity, with a larger crop than last year. Mr. Parson's crop exceeded last year's crop by 3000 pounds of dried hops.

Orange.

THE RAISIN INDUSTRY.—Orange *Post*: The Muscat vineyards in and about Orange have produced a heavy yield of fine grapes, which have fully matured. The process of picking the same is nearly or quite over, and the grapes are now lying upon the warm gravelly beds where they are being rapidly transformed into raisins by the simply process of drying in the sun. The weather, so far, has been generally favorable for raisin-curing, the thermometer indicating 75° to 85° in the shade during the warmest part of the day. Much of the present crop has been grown upon vines but 17 months old from the cuttings, and at this present time the young vines are looking strong and vigorous after perfecting the fruit. To a person not accustomed to the productiveness of the soil in this locality, which is particularly adapted to the growing as well as curing of the raisin grape, the number of pounds taken from the vines in a single season seems little short of marvelous, and to the older settler is always a source of pride as well as of a good fair profit.

Placer.

SHEEP NOTES.—Auburn *Republican*: Large numbers of sheep are being driven from the mountains to the valleys for the winter. A band of several thousand passed through Auburn last Sunday. Mutton is mutton these days, sheepmen being offered nine cents for their sheep delivered at any station on the line of railroad. Some few of the Placer county sheepowners shear in the mountains, but the majority do not remove the wool until they have reached the valley. More than a hundred thousand State of Nevada sheep were pastured in the mountains of eastern Placer this season. These sheep are sheared in the mountains and continue to feed there until the first severe storm, when they are shipped to Nevada for the winter.

San Bernardino.

THE ORANGE-GROWERS.—Redlands *Facts*: A statement was made public last week to the effect that the average net price received for seedling oranges through the Orange-Growers Association last year was $2.19. This is misleading and probably an error. We have been shown the report of the secretary to one of the growers in which the gross income is given at about $1.80 per box. From this there is to be deducted the cost of picking, packing, the six per cent commission to the packing-house, and about three cents per box to the manager. From this report, it seems that the average net price brought by seedling fruit to the growers of Redlands was from $1.05 to $1.15 per box. The same authority quotes the net price on Navels at $3.22 and Mediterranean Sweets and other buds at $3.37½ net. As a matter of fact, according to the report of the secretary to the growers, these figures must be scaled down by about $1 per box. If the object in publishing two sets of figures, one for the public and one for the grower, is to boom orchard land, it is a great mistake. California needs no doctored returns. The truth is good enough, and at the true figures mature orchards will pay ten per cent interest on land at from $5000 to $10,000 an acre. But we prefer to think there is a mistake somewhere, and that the secretary, in making his figures for publication, did not give them to the reporter as net, but as the price at which some fruit had been sold, gross. This is undoubtedly true.

Santa Clara.

FRUIT SHIPMENT.—*Mercury*, Sept. 22: Canned fruits lead in last week's shipment, the amount being 1,474,385 pounds, with green fruit a close second. The total of all eastern shipments amounts to 3,788,485 pounds. The total shipment for the corresponding week last year amounted to 2,166,250 pounds, the increase this year being 622,235 pounds. The canned-fruit shipment for the corresponding week last year amounted to 751,770 pounds, the increase being 722,615 pounds, or over double last year's shipment. For the same period the green-fruit shipment amounted to 886,480 pounds, while the shipment last week amounted to 1,026,955, an increase of 140,475 pounds. In September, 1891, no prunes were shipped at all. A. C. Kuhn shipped 14 cars of dried fruit East last week, and yesterday three cars started in with the new week. Prunes, peaches, apricots and silver prunes were the consignments. The shipments last year, as compared with this year's business, were all one week behind. The 3,000,000-pound mark last year was not reached until September 29th, when 3,598,690 pounds went forward, and the banner week, when 5,036,040 pounds went forward, ended on October 17, 1891.

CAMPBELL FRUIT NOTES.—Cor. *Mercury*: Prune-gathering is about over. The yield has fallen far short of early calculations, but the shrinkage in drying is the least that has ever been known, some lots scarcely losing the half in drying. Some magnificent Salway peaches are being shipped through our drier. Mr. Leigh gathered ten tons from 300 trees at one picking, and all very fine peaches.

Shasta.

HAPPY VALLEY FRUIT NOTES.—Cor. Anderson *News*: The Happy Valley people are very much encouraged over the fruit industry. Those who have orchards bearing have realized a handsome profit from their fruit sales. Some have paid up all their debts which they were obliged to incur while getting their trees in bearing, and have money left, while others have paid part, with a good hope of paying up all next year. Mr. Sweasey is getting pretty well through budding. He has 75,000 trees in his nursery on Mr. Robert Mewes' ranch. Picking grapes for raisins began on the Alexander ranch this week.

Sonoma.

A FINE FARM.—Dixon *Tribune*: Petersen & Timm have a fine farm in Rio Vista township. About 1000 acres lay in the reclamation district and several hundred acres are outside. The land is superior to most of the tule lands and when it is reclaimed it will yield largely of both barley and wheat. The firm has spent much money in improvements and will soon have a model farm. The pasturage on the farm is excellent and by an ingenious device Mr. Timm conducts slough water through his own and his neighbors' farms in ditches which are now used solely for watering stock, but which will soon be used for irrigating alfalfa for feed. The firm has its own landing on Linda slough, and transportation by means of schooners is very cheap and satisfactory.

POOR PEARS—THE RESULT OF NOT SPRAYING. Santa Rosa *Democrat*: Speaking about Bartlett pears, J. H. Hunt says at one time Sonoma county raised as fine fruit of this kind as could be found anywhere. For the last two years, however, the fruit has been scabby and in other points inferior to the pears grown in the southern part of the State. He attributes these defects to the neglect of the farmers to properly spray their trees. Last spring the warning note was sounded by the State Board of Horticultural Commissioners, when it said that if the farmers did not spray their pear orchards for the fungus there would not be half a crop, and the quality of the fruit would be greatly deteriorated. The advice, it seems, was neglected to a large extent. Mr. Hunt says his father has been making a number of experiments in his orchard near Sebastopol, and the results in every case have convinced him that careful spraying is worth half the crop. Last year he sprayed all but one tree in his apple orchard. The fruit on that single tree was scabby and otherwise inferior, while all the other trees were loaded with perfect and evenly-matured fruit. This year he took one tree for experimental use. He covered up some branches and sprayed the rest. On the branches which were not sprayed the fruit was scabby. That on the sprayed branches was perfect.

TOKAY GRAPE CROP.—Sonoma *Index-Tribune*: The Tokay grape crop in Sonoma valley is almost a total failure, if we except a few vineyards. Many growers report one-quarter of a crop. The grapes were ruined by the cold nights followed by hot days during the months of July and August.

Sutter.

LENGTHY CUCUMBER.—Yuba City *Farmer*: At the Feather river orchard, below Yuba City, is a curiosity in the way of a vegetable. This spring a small plot of ground was planted to cucumbers and after the vegetables had begun to form it was noticed that a portion of the vines bore cucumbers of great length, some measuring at least five feet and still growing. They are of the same nature as an ordinary cucumber, but the remarkable length is surprising.

ARIZONA.

SALT RIVER VALLEY RAISINS AT THE EAST.—Phœnix *Herald*: Actual shipments of fruit speak louder than words, as to the resources and achievements of the Salt River valley. H. W. Adams' 80-acre ranch is devoted entirely to Muscat and Seedless Sultana Raisin grapes. On August 22d he made his first shipment of raisins to Chicago, and has continued shipping one carload per week since, making 55 tons, and he has yet 15 to 20 tons to ship. The first carload was shipped from Phœnix just one month before grape-picking was commenced in California. The eastern dealers write that this advantage will always give Arizona growers the cream of the market, providing their product is equally good, and they have no fault to find with the raisins of Mr. Adams, which are sacked. Of course the raisins packed in layers bring the next higher price, but for similar packing and curing the Salt River valley product takes the prize from the coast. Mr. Adams received the top market price, being 1½ cents higher than he received last year. Arrangements are being made for packing hereafter in the very best manner.

OREGON.

THE HOP INDUSTRY.—Dallas (Polk Co.) *Transcript*: Sept. 17th witnessed the closing of the hop harvest in this section, and the crop has been saved in excellent shape. Though the output has not come up to the expectation of any of the growers, the hops are all of first quality and will pass as A 1 in any market, if the louse did get in his work in all of the yards. Experienced growers say that the crop will not be more than 60 per cent of what it usually is, owing principally to late spraying. So far we have been able to glean the following figures regarding the yield in several Polk county yards: Hill & Yocum, 16,000 pounds; Yocum & Grant, 10,000 pounds; Yocum & Mason, 5000 pounds; Kirkpatrick & Son, 9500; H. B. Plummer, 8200; J. H Dunlop, 2900; Siefarth & Son, 8500; H. Morrison, 13,280; Farley Bros., 7200; Lee Wann, 14,000; H. W. Clifford, 30,000; Mr. Cutler, 86,000; Harris & Stutsman, 33,000; Hubbard & Harris, 33,000; Mason & Son, 15,000; J. Rhodes, 5000; T. J. Morrison, 21,000; J. F. Groves, 17,000.

INFORMATION FOR SETTLERS!

The members of the Kern County Land Company have a national reputation for wealth, business and financial ability. These facts set the matter of reliability at rest. The company's capital stock is $10,000,000.

They have 400,000 acres of arable, irrigable lands upon which the sun shines almost constantly; and their enormous irrigation system renders them independent of the annual rainfall.

A clear title; rotation, variety and certainty of crops; easy terms; availability to persons in moderate circumstances; ground ready for the plow—no stones nor thistles; good society; schools; churches, etc., are a few notable attractions of this region of country.

Kern is the largest county in the San Joaquin Valley. It has the finest climate for curing and drying fruits, etc.

The 400,000-acre territory of the Kern County Land Company is the pick of the county.

Its area is 5,184,000 acres.

Has the largest irrigation system in America.

The home of the peach, French prune, pear and raisin grape.

Planting and harvesting can be carried on every month in the year.

No rocks, hills or stumps on the land.

A failure of crops is unknown on irrigated lands.

Kern county fruits take the first prize at the State Fair.

Land can be made to pay for itself in less than three years.

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The advantages of good soil and plenty of sun, which occur in the Kern Valley, would have been of little avail but for the third and all-important one of an abundance of water from never-failing sources.

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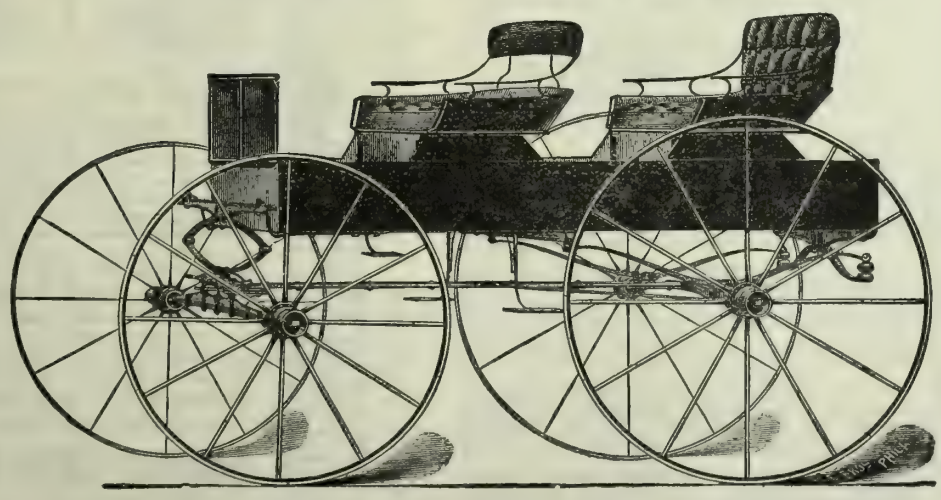

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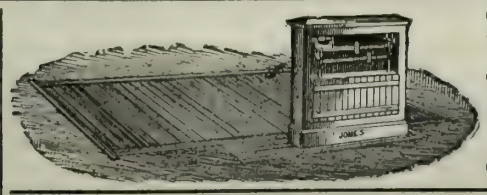

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PATRONS OF HUSBANDRY.

The Secretary's Column.

By A. T. Dewey, Secretary State Grange of California.

MISTAKEN VIEWS OF THE GRANGE.

The following, written by Past Lecturer of the State Grange, Jeanne C. Carr of Pasadena, for the RURAL PRESS, long since, is still of pertinent interest:

The *Popular Science Monthly* contains an article on "the outcome of the Granger movement," by Chas. W. Pierson, which is one of the most singular illustrations of the inability of an outsider to understand what the Grange is and has been to thousands of farmers and their families.

The article is mischievous in its tone, but more so in its partial statements, and, possibly, not willful perversion of the leading facts in the history of the movement. He sails into his subject thus: "The founders of the Grange thought they were establishing an Order whose aims were to be social and educational. But these were soon overshadowed by the cooperative and antimiddleman features. This drew more into the Order than all other considerations combined, at one time threatening to transform our farming population into a race of traders, and this was likewise the cause of Grange decay. Fighting middlemen, unlike fighting railroads, was a legitimate kind of activity, as it had nothing to do with politics or theology—the two subjects tabooed by Granger law. Unfortunately, the story of Grange cooperation is recorded nowhere and thoroughly known to nobody. Those who know most preserve a discreet silence, mindful of questionable transactions and failures now generally forgotten."

Speaking of cooperative movements, he says, further: "It is always easy to experiment with other men's money. The State Grange officials found no difficulty in getting, *with the Grange funds*, into enterprises where disaster was inevitable. It came in every instance. The blow was so overwhelming that in some States they dropped at once from the Order."

It seems that Prof. R. T. Ely, in a recent book on "the labor movement in America," has illustrated the work of the Patrons in cooperation as worthy of all imitation. But our author sighs, "the failures! Has he not heard of the failures? Does he not know that thousands of farmers were carried into the movement, with no idea of the nature or aims of the Order? Does he not know that a Jersey City Grange (a *city* Grange forsooth!) had an army-general for its master, a stonemason for its secretary and the owner of a grain-elevator for its chaplain?"

Mr. Pierson is puzzled over the apparent resuscitation of the moribund State Granges and that the growth is especially marked in New England. "At the session of the National Grange in 1885, delegates were present from all States and Territories but eight. It is not easy to explain this growth, as there seems to be no great principle underlying it."

Mr. Pierson has probably never read the Grangers' Magna Charta, especially Art. III of the declaration of purposes. This will enable him to explain all the paradoxes of Grange history. Not one of the purposes announced in that immortal document originated in the Grange. Some are as old as Moses; as the Sermon on the Mount. The novelty lies in the mode of application. Mr. Pierson says "there was great lack of discipline in the Order from the first, but no discipline could have harmonized such a body."

But as if these Grangers' ways were altogether past understanding, our author says: "The harmless practice of holding great fairs is gaining ground. At a recent one in Pennsylvania [Williams Grove Picnic.—ED.] over 50,000 people were present in one day, and the sales of machinery direct to farmers (no middlemen!) ran up into the hundreds of thousands of dollars! Never were manufacturers and consumers brought into closer or more friendly relations." So it seems that the Grangers have got some discipline at last, and they must have progressed considerably if, as Mr. Pierson acknowledges, "the most enthusiastic Grangers at present are the farmers' wives and daughters, who are attracted by the social opportunities." He says they boast "more of their Grange buildings and libraries than of their business operations," even when they transact "business to the amount of hundreds of thousands," with their own brains to the fore!

That little handful of Grangers who met at William Saunders home in Washington, Dec. 4, 1867, would have been more than satisfied could they have foreseen the results of their organization *as it appears to-day*. What is 20 years in the history of a reform, of any great movement for the elevation of a class or a race? Every organization in its infancy strikes out blindly, but in proportion to the inherent worth of its underlying principles gains in strength.

Is it not true that religion and politics are tabooed in the Grange, though the partisan or sectarian is required to lay these burdens down when he enters its hospitable doors? Mr. Pierson confesses that in healing the sectional differences between the north and south, the Grange has deserved the thanks of the country.

The *Popular Science Monthly* has a larger audience among "thinking men and scholars" than among the Patrons of Husbandry, but is not a stranger in the Grange libraries, which Mr. Pierson approves as more profitable to them than cooperative undertakings. It is a curious fact that there is more understanding and sympathy with the truths of social and physical science among the laboring classes, especially in their organizations, than is found among the more intellectual classes in considering these truths *in their applications*. We can respectfully assure Mr. Pierson that to read the outcome of the Grange movement he will require a larger telescope and clearer lens, when he will no doubt recognize its true significance in the social development of the country. J. C. C.

THE STATE GRANGE.

Next Tuesday the State Grange will open its 20th annual session at 10 A. M. in the Unitarian Church at San Jose. State Lecturer Huffman informs us that the auditorium is handsomely carpeted and furnished with adjustable chairs, and the acoustic qualities of the room are excellent. We have reason to expect one of the largest and most pleasant and profitable of sessions. San Jose Grange has taken great pains to prepare for the comfort and pleasure of all members and visitors. We hope an effort will be made in every subordinate Grange to have as large a delegation as possible attend, feeling sure that Patrons who miss going to the session will suffer a real loss. We hope to greet all old and many new attendants. The editor, in the general columns of this number, has made further mention of the meeting with other matter of interest to Grangers and other farmers.

THE W. M. has called the Executive Committee to meet at San Jose Monday next at 10 A. M.

ALTERNATE REPRESENTATIVES ELECTED.

The following have been reported to the Secretary of the State Grange:

Millville—Mary W. Webb.
Valley—G. F. Loucks, Mrs. M. Hook.
Temescal—A. T. Perkins, S. Goodenough.
San Jose—Mr. and Mrs. R. P. McGlincy. (Mrs. S. A. Bicknell was elected as representative with the Master who has no wife.)
Two Rock—Mr. and Mrs. W. D. Houx.
American River—A. A. Harris.
Tulare—A. J. Woods.
Pescadero—Geo. A. Piper and Mrs. A. M. Piper.
Roseville—J. F. Cross and Mrs. S. J. Cross.
Potter Valley—Fannie Thomas.
Danville—Mr. and Mrs. R. O. Baldwin.
Santa Rosa—S. T. Coulter.
Magnolia—Jennie Elder and Lee Bilderback.
Stockton—Mr. and Mrs. Nathan T. Root.
Dixon—H. Aylworth and Gotefey Schmeiser.
Woodbridge—John Thompson, Sister G. H. C. Ashley.

SAN JOSE.—A "Granger" writes: "We are all looking for a rousing good time at the meeting, and hope the many important questions will be fully discussed, especially that of 'Cooperation,' which has been inaugurated by Two Rock Grange."

BERTHA INGRAM, Secretary of Tulare Grange, and her husband recently returned to their ranch, several miles out of town, after a term of residence in Tulare.

BRO. H. E. HUXLEY, of Neenah, late Secretary of the State Grange and Grand Representative of the I. O. O. F. of Wisconsin, visited us on Monday. He was accompanied by two other solid veteran representatives from Wisconsin to the Sovereign Grand Lodge of I. O. O. F. at Portland, Oregon. Bro. Huxley (who is pretty good-looking for a Western Granger) reports the Order holding its own fairly well in Wisconsin. We are always glad to receive the friendly grip from Patrons across the mountains and plains, and especially such an old and intimate friend of Past Master S. C. Carr of Wisconsin. He reports Bro. and Sister Carr in good health and as full of Grange work and talk as ever.

GRAIN-BAG COMMITTEE. — This committee, consisting of J. D. Huffman, D. A. Ostrom and C. P. Berry, will meet on Monday night next to complete an interesting and important report for the consideration of the State Grange.

UNFINISHED BUSINESS.—The report of the Committee on Resolutions in relation to property rights of wives, and the "Stanford Land Loan" resolutions of Bennett Valley Grange will be part of the unfinished business to be considered at the State Grange.

STATE LECTURER HUFFMAN reports a good meeting at San Antonia Grange at Jolon last week. He also lectured a less well-attended meeting of San Lucas Grange.

ANNUAL REPORTS RECEIVED.—Reports from the Master, Overseer, Ass't Steward, Secretary, Pomona and Gen. Deputy Overhiser are among the few so far received out of those called for from all officers and Deputies, according to the resolution of the State Grange. The Lecturer has deferred his report to hear further from Sub. Grange Lecturers. The reports so far make a favorable showing.

STILL COMING IN.—D. Fisher, W. M. of North Butte Grange, Sept. 23d, writes: "We conferred the third and fourth degrees on a class of 11 to-day."

G. P. Loucks, of Valley Grange, Sept. 24th, says: "At our meeting to-day we admitted four by card and one by initiation. Two new applications. Having a new start, we hope to be able to add many more. We think of holding a special meeting to bring all up to the second degree on Saturday next."

ALL laws, rules and regulations for the government of society should be equal in their operations, so as not to impose upon some burdens from which others are exempt. When a law or rule is found by parties to be unequal in its operations, and to oppress one class, or to confer immunities upon some which it denies to others, it ought to be repealed and a more just statute enacted in its stead. It needs no argument to show that we have now laws which operate adversely to our agricultural interests. We do not pretend that these laws were framed and enacted with that end in view, but that is the effect produced by their enactment, and the result is the same whether we regard them as the outcome of a lack of information or a shameful disregard of the rights of the farmers and landowners of the State, or the product of business shrewdness. We are not now concerned, particularly, about the way they were placed on the statute books; but we are deeply interested in their taking off. A part, and the larger part, of our population is unduly burdened by these acts of legislation, and common justice demands their repeal and the enactment of statutory provisions which shall be equal in the distribution of public burdens.—Farmers' Friend.

PARTY men—men who are for party first and for principles and men as it seems expedient—are asking if it will be possible to whip or cajole the people within the party lines as of old; and other men—men who believe in principles and men first, and the parties as the instruments to get men into office to carry out principles—are just as anxiously asking if the people will be true to their own interests and their own beliefs.—Farmers' Friend.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription, paid in advance, 6 mos., $1; 10 mos., $2; 15 mos., $3. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

IN 1790 three patents were issued. One hundred years later the number was 26,292. The total number of patents granted during the 100 years was 453,944, or an average of nearly 13 patents for every day.

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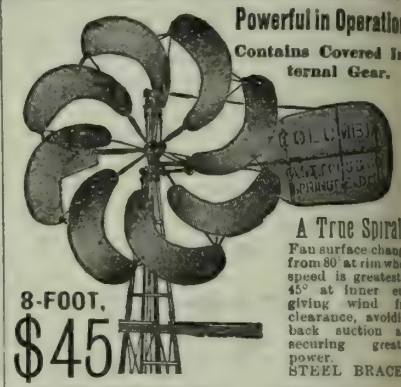

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One Plowman instead of two.

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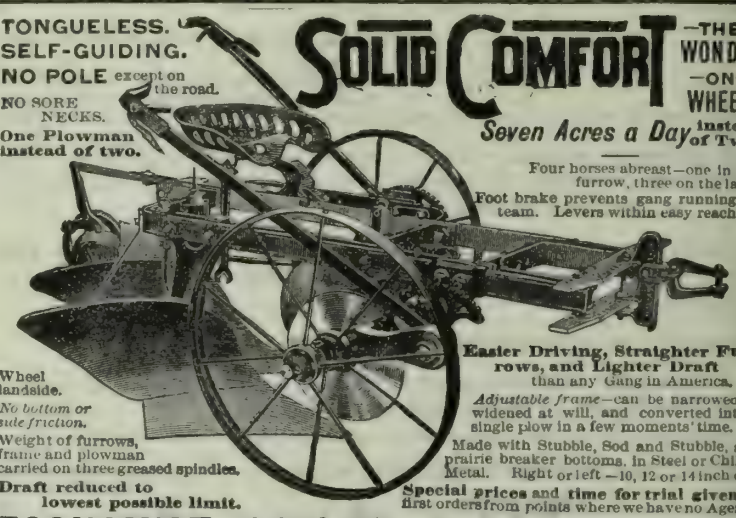
Seven Acres a Day instead of Two.



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Foot brake prevents gang running on team. Levers within easy reach.
Easier Driving, Straighter Furrows, and Lighter Draft than any Gang in America.
Adjustable frame—can be narrowed or widened at will, and converted into a single plow in a few moments' time.
Made with Stubble, Sod and Stubble, and prairie breaker bottoms, in Steel or Chilled Metal. Right or left—10, 12 or 14 inch cut.
Wheel landside.
No bottom or side friction.
Weight of furrows, frame and plowman carried on three greased spindles.
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Our book—"FUN ON THE FARM"—sent Free to all who mention this paper.

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2d
It is maintained by *permanent* patronage, is still growing and we won't stop until we reach a million a year output.

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Plenty of reasons why, in your favor and ours, but life is too short to explain them all here.

4th
Watch the *prices* quoted the balance of this year, in our advertisements in this paper. Will make our record on *them*.

5th
∴ *If* you can buy the same high grade goods elsewhere at our prices, go ahead, but if not, help us sell that million.

6th
Keep posted, send for our daily price list and monthly list of 40 pages. Special new bargains all the time. Cash does it.

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Husks the corn and cuts the stalks into the best fodder known.
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Seeds, Plants, Etc.

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Ve can guarantee every tree we have grown true to le and free from pest,
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Nurseries at Napa, near R. R. Depot. Residence of prietor at Sausal Fruit Farm, 4½ miles north of Napa.
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ARTLETT PEAR TREES.
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Prunes, Cherries, Olives,
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All first class and best of material used, f. o. b.
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THE LATEST and BEST.
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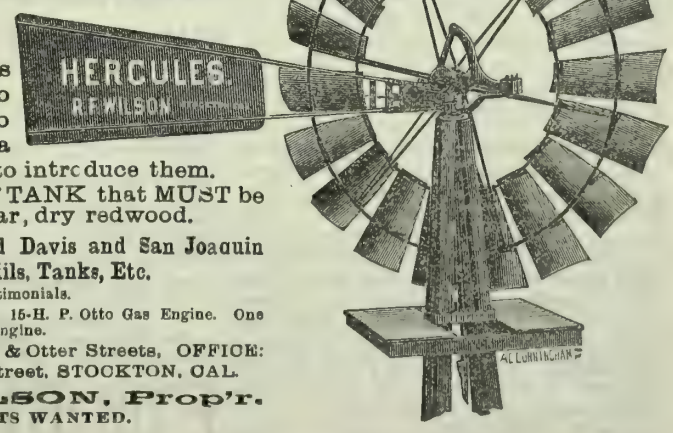

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VARIETIES FOR OIL—Razza, Grossaia, Rossalina, Bellmonte, Olivastra, Leccino, engente, Morinello, Uvaria, Corregiola, Infrantoia, Rubra, Atrovialacea, True choline
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Terms of sale, Cash on delivery at the railroad station. Time for transplanting, January and February. Trees red for sale are two years old, propagated from imported stocks.

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THE Most Efficient Wood Preserver.
APPLIED WITH AN ORDINARY BRUSH.
Protects All Kinds of Timber, Above or Below Ground or Water, from Rot and Decay.
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Good Health.

Cholera Germs.

At the last meeting of the San Francisco Microscopical Society two papers were read on the cholera. The first was by Henry E. Sanderson, M. D., on "The Spirillum of Asiatic Cholera," and the second by R. H. Freund, "A History of the Cholera Organism."

Dr. Sanderson prefaced his paper by a brief account of the method pursued in laboratory work, with cultures of cholera and other disease germs. He said he had no doubt most of his hearers were already familiar with the methods, but for the benefit of his lay hearers he exhibited the various articles used and some of the apparatus.

In 1829–37 Europe, he said, was for the first time attacked by a hitherto unknown disease, which spread with great rapidity over the continent. It came originally from Asia, from the region of the Ganges delta in India, hence the name of "Asiatic cholera." It has since reappeared at varying intervals and has done its deadly work, but for many years its cause was but a mystic conjecture.

In 1883, as the epidemic again spread to the confines of Europe and threatened to cross the borders, the German Government sent a commission to the infected regions to investigate the disease, and especially to search out the causative factor. At the head of this commission was Dr. Robert Koch, who discovered in the discharges the germ since known as the comma bacillus.

In bacteriology there are three forms of vegetable life; the bacillus or rod-shaped, the micrococcus or berry-shaped and the vibrio or spirillum, the spiral-shaped. The cholera germ belongs to the vibrio spirillum group. Some are very slightly curved, others more markedly so. It is one-half the length of the Tubercle bacillus, much thicker and has rounded ends. Some are so much curved as to form almost a semicircle and occasionally, where two or more are joined together, a spiral or letter S form results. Where marked spirals occur it is due to peculiar circumstances, such as restrict the ordinarily quick subdivision, by means of which multiplication occurs.

The germ is very active in its movements. In proper culture media and with proper temperature they swim and wriggle around he field of vision like a swarm of gnats. At one end of each is a whip-like process or flagellum, by means of which this motion is induced.

The question as to the existence of spores is not yet definitely settled. No one has ever been able to prove their presence by staining methods. Hueppe claimed to have seen sporuration taking place in a hanging drop, but his observation has not been confirmed. In order to prove the existence of spores in bacteria it is necessary to prove the existence of forms with far greater resistance power than that possessed by the bacteria themselves. No such enduring forms have been found in connection with the cholera germs. On the contrary this germ is among the most sensitive microorganisms known. A temperature over 122° F. kills them quickly. They stand chemical influences very poorly, especially mineral acids. The hydrochloric acid of the gastric juice kills them, and if the gelatine culture shows a trace of acid the culture will fail. Dryness kills in a short time, sometimes in a few hours, while in fluids they remain virulent for months. Other bacteria easily overpower them, and in putrefying fluids the germs of putrefaction are apt to kill them.

In artificial cultivations, as a rule, the free entrance of atmospheric air is required, though under some circumstances thriving without it. In the intestinal contents of man they thrive without atmospheric oxygen, but produce oxygen from the chemical changes induced by themselves. With a temperature under 50° and over 107° F. they do not flourish.

The method of infection of the general system seems to be somewhat misunderstood, if one judges from newspaper articles which have lately appeared in this city. The bacteria themselves do not get into the blood and the various organs of the body, but remain confined to the intestinal contents, with some invasion of the intestinal walls and occasionally of the intestinal lymphatic glands. From the intestinal tract absorptions of poisonous substances produced by the bacteria into the system at large, absorption of the "toxines," or *tox albumens*, and the consequent poisoning, is what gives the symptoms of the disease; although the thickening of the blood and the terrible drain upon the system from the copious evacuations does, also, great injury.

There are several other bacteria which look under the microscope very much like the vibrio of cholera, and these were very fully described by Dr. Sanderson. He had also placed under microscopes for inspection preparations of the cholera germ and these allied forms, all of which were closely observed by those interested in the paper. He gave a full description of the methods of culture of these various germs, the media employed for the most perfect and rapid development of each, and much valuable information.

HOT WATER FOUNTAINS. — The "hot water fountains" which the municipal council of Paris determined last year to establish, have made a practical commencement on the Boulevard St. Germain, on the south side of the Seine. It is an elegant circular column provided with a button, which, being pressed, after placing a halfpenny in the slot causes about eight quartz of water to be almost instantaneously heated by gas to 65 degrees Reaumer, and passed through a tap into the recipient's pail or can. When this operation is completed an inner weight rises and the gas is automatically turned off. The small householders and shopkeepers of the neighborhood are stated to be availing themselves eagerly of this privilege, which is eventually to be extended to every quarter of the city and suburbs.

The Reliable Incubator and Brooder Co.

Of Quincy, Ill, has moved into new quarters and is now one of the largest exclusive incubator manufactories in the United States, equipped with motive power and new, improved machinery which adds to its facilities for turning out good work rapidly.

This firm furnishes an illustrated catalogue that contains a great deal of information of a practical character, and its testimonial pamphlet is a very creditable feature as some of its best recommendations bear signatures of parties whose names could not be obtained if the merits of this egg-hatcher did not fully warrant it.

P. & B. Paint Co.

In our notice of State Fair premiums in last week's issue, the awards granted to the P. & B. Paint Co. were unintentionally omitted. It was awarded the silver medal on "Best Prepared Paints" and a diploma on "Best Samples of Paint—California Manufacture." These are the highest awards granted by the State Agricultural Society for this class of exhibits.

Unitarian Literature

Sent free by the CHANNING AUXILIARY of the First Unitarian Church, cor. Geary and Franklin Sts, San Francisco. Address Mrs. B. F. Giddings, as above.

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$2,500—Eighty (80) acres, Los Gatos, partly improved; offer wanted.
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$200 Choice Lots (50x300), Town of Belmont.
$1,700 Choice Lot (40x130), N. W. Cor. 19th Ave. and E. 17th St, Oakland.
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$12,000—A very desirable Residence and Lot (140x150), 19th Ave. and E. 17th St., Oakland.

These properties are offered on the most favorable terms, and they are to be sold. Apply at once.

JOHN F. BYXBEE,
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FOR $19.00

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SPECIALTY SINGLE BUGGY HARNESS,

Which is the result of years of figuring to make the best harness ever known for the money. It is made from oak stock, hand stitched and finished by skillful mechanics, handsome full nickel or Davis hard rubber trimmings.

Just the Harness for an Elegant Turnout.

They sell here for $25.00, and harness not as good is often sold for $35.00 in retail shops. If harness is not as represented, money will be refunded.

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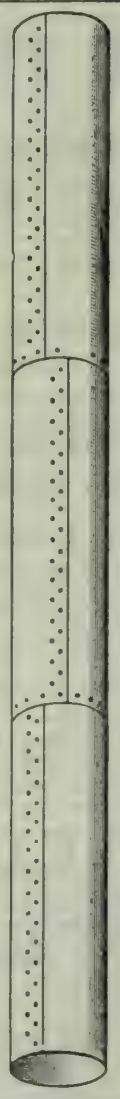
Collar and Hames, instead of Breast Collar, $2 00 extra.

Please state if you want single strap Harness, or folded style Harness, with traces double throughout.

R. H. CRANE, Petaluma, Cal., breeder and importer. South Down Sheep; also Fox Hounds from Missouri.

SHEET IRON PIPE



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For Water Supply, Mining, Irrigating Purposes, Stock Ranches, Etc.

Made in Lengths Desired from 16 to 30 feet.

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The weight or thickness of metal used, is graded according to service required, and pressure to which the Pipe will be subjected.

FOR ALL UNDERGROUND PURPOSES, we immerse the Pipe in a bath containing a special mixture of ASPHALTUM, PITCH and PETROLEUM, at a Temperature of 300° Farenheit. It thus receives a thorough coating, both inside and outside, rendering it impervious to the alkalies of the earth, rust, etc., and is practically indestructible.

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Black, Painted and Galvanized, for Roof and Sides of

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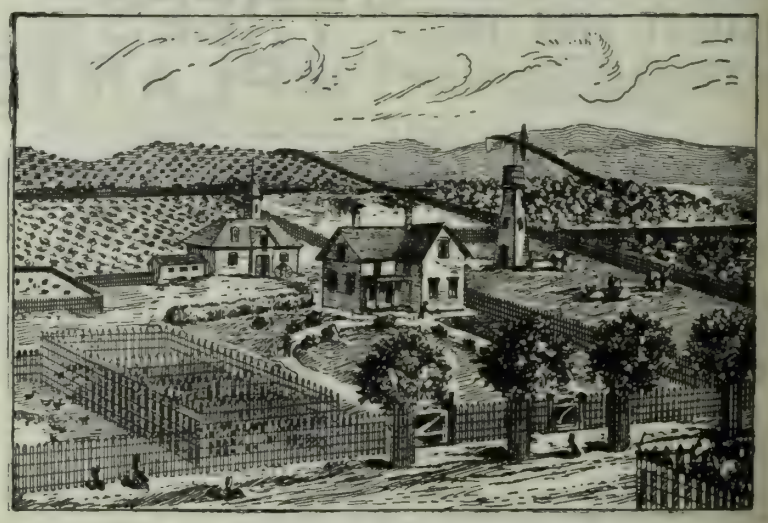
WITH THE "ORIGINAL EUREKA FENCE."



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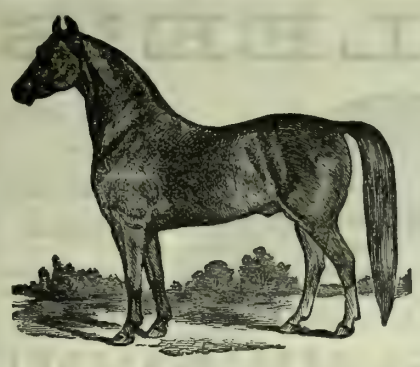

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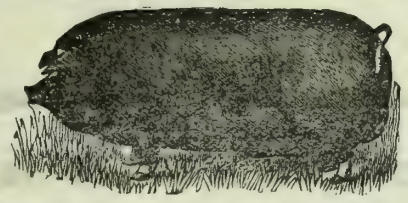

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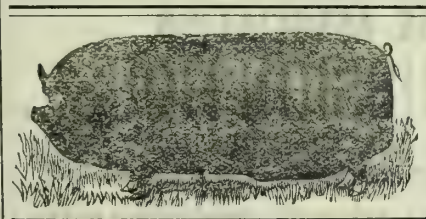

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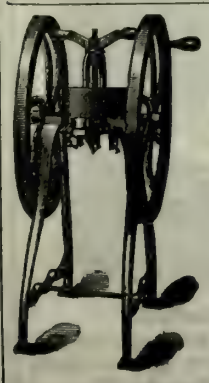

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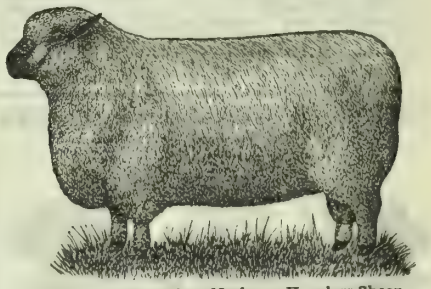

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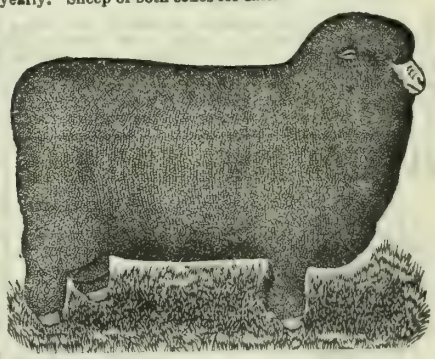

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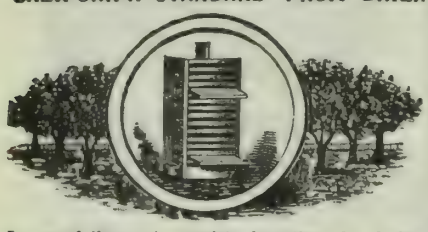

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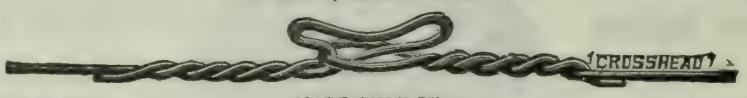

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S. F. Market Report

Market Review.

SAN FRANCISCO, Sept. 28, 1892.

The cholera scare continues an unfavorable factor in the world's market for about everything dealt in. Although its influence is still keenly felt, yet the edge is wearing off, for in some branches signs are multiplying of a steady return of the normal condition of affairs. Wheat is the first of farm products to show returning life and a corresponding appreciation in values. That the wheat markets have been unduly depressed by a strong moneyed syndicate goes without saying, and the cholera scare has been used for all that it is worth to facilitate the downward movement. The statistical position of the cereal, as has been repeatedly stated in the RURAL PRESS, is in favor of holders, and that sooner or later the market would recover and much better prices follow. These opinions were grounded on the best obtainable information regarding the probable supply and demand, and which are now being verified. The preliminary estimates of the world's crop of wheat made by the Hungarian Minister of Commerce, of a shortage in comparison with the crop in last year, are supplemented by later reports, and, with the corrections necessitated by the recent reports of the crop prospects at home and abroad, make an interesting comparison with last year. The total American crop is 603,000,000 bushels this year, against 716,000,000 bushels last year, a decrease of 113,000,000. The entire American crop this year is less than the United States crop last year. The Australian crop is about the same as last year, while the African crop is about 6,000,000 bushels less. The crop in Asia, including India, the Russian territory of the Caucasus, Turkey in Asia, etc., amounts to 385,000,000 bushels, against 44[illegible],000,000 bushels last year, a decrease of 5,000,0 0 bushels. The decrease outside of Europe is 74,000,000 bushels, compared with a year ago. Of the European crops, the principal countries showing a decrease are Germany, 25,000,000 bushels, and Italy, 3,000,000 bushels, while France shows a gain of 77,000,000 bushels and Russia of 26 000,000 bushels. The total European crop is figured at 1,250,000,000 bushels, against 1,161,000,000 bushels last year, an increase of 9,000,000 bushels, making a net decrease, taking the world's crop as a whole, of 86,000,000 bushels. The corrected figures to date indicate a crop of 2,307,000,000 bushels, against 2,392,000,000 bushels in 1891. Besides a shortage in wheat, there is a shortage in corn and also in staple root-vegetables.

Wheat, the past week under review, sold at steadily advancing prices at home and abroad. The shortage in the world's crop, combined with the very low price to which the markets had been sent, caused farmers to withdraw from the market after selling a sufficient quantity to meet current moneyed requirements. Their withdrawal left the short interest, which has been steadily increasing, to the tender mercy of the bulls, made so by the favorable condition of affairs. At this writing it looks as if still higher ranges will obtain in the near future. In our market the offerings, which had been quite light, are now, with prospective better prices, almost nothing; and as there is a large engaged tonnage in port besides a short interest in futures, to secure requirements, it looks very much as if buyers will be forced to bid still higher.

Barley has come in quite freely, but with an improved demand the market hardened. The exports of the more choice grades of bright barley continue on an enlarged scale. This free exporting is in the face of the cholera scare, which has greatly reduced the consumption of malting grades abroad. The general opinion is that if the United States escapes a cholera epidemic, the demand for brewing barley will be quite active, owing to a large shortage in the central States of the grades suitable for malting. The consumption demand for feed barley has been active, with a steadily increasing quantity fed out. Roll barley is being more generally used in this state, and is also more generally taken for shipping to the Hawaiian Islands. Up north it is said that round barley continues the favorite.

Oats have come in fairly free. The lower range of values and strengthening of the barley market attracted buyers, and as receipts lately show a falling off, the market has sold slightly higher. The crop this year in this State is larger than it was in 1891, but in both Oregon and Washington the crop is said to be short. In two of the counties in western Oregon, which usually have large crops, the yield will barely meet local requirements.

Corn, like wheat, barley and oats, has strengthened, but there has been an absence of life. The hardening tendency has been brought about more through the firmness of holders than by an improved demand. The crop in this State is unquestionably short, which, combined with a very large falling off in the central States, causes farmers to be offish in their offerings at the recent decline.

Rye has been dull and barely steady. Receipts are light, but the absence of an export demand, except at low prices, is against sellers.

Ground feed has met with an exceptionally good demand the past week, and although the receipts, particularly of bran, have been heavy, yet the market not only held up, but scored a light advance. The two comparatively dry winters made themselves felt this season in a short natural pasture.

Hay has strengthened, particularly for the more choice grades. It now looks as if the strong selling pressure is about over, and any improvement in the demand would be met by higher prices. It is claimed that large quantities are warehoused; it is also said that feeders have light supplies.

Gilt-edged butter has been advanced to still higher figures. The advance is due to moderate receipts and a fair demand. The receipts are said to be better concentrated, which admits of securing a higher range of values. All grades from good down are still irregular. The demand the past week shows an enlarged call for pickled. The receipts of the latter are increasing. Where a dealer has been taking two boxes of fresh butter he now only takes one, which shows that the consumption is running on pickle. Eastern creamery is on the way, but until the weather grows cooler the demand will be light. Norton, Teller & Co. has one carload due, which is put up in 10-pound packages for family use. This, we think, would be a good thing for California creameries to follow for their winter patronage.

Cheese has hardened under a steady demand, lighter available supplies and strong holding. It looks as if still better prices will obtain in the near future.

Owing to high prices, the consumption of fresh-laid California has fallen off, and with a lighter demand the market has been top heavy, which necessitates, at times, concessions to place consignments. The fine quality of Utah and several special packs of Nebraska, cause the trade to turn largely to them owing to their relative cheapness.

Garden truck has been more or less lifeless, with values largely nominal. Tomatoes, owing to canners still running on them, have moved off fairly free. The market continues to be controlled by the receipts; with an enlargement in receipts, prices go off, only to recover again when they are lighter.

Onions have been slow. The spasmodic effort to advance prices failed, owing to shippers holding off.

Choice shipping potatoes have moved off quite freely without any appreciable advance. Receipts were heavy. The supply of wormy, diseased and otherwise inferior potatoes has been in oversupply.

The fresh fruit market has been in an anomalous condition, with prices controlled more by receipts than for some time past. This is due to the demand being largely, if not altogether, confined to the trade and to coast and near-by shipping orders. Grapes, under moderate receipt, strengthened slightly, but with heavy receipts peaches sold lower. Common varieties of pears have been a drug. Bartlett pears are coming in more sparingly. Plums and prunes have been in moderate receipt, but, with an offish demand, the market has favored buyers. Apples are a glut. The only demand is for choice red, for which good prices are obtainable. Melons have met with a good inquiry.

Dried fruits have been inactive, which has created a weaker tone. Buyers have only been induced to take hold with any degree of freedom by securing concessions. The cholera scare at the East, and also abroad, is being used against the market. The offerings of peaches are heavier. We make several changes in quotations.

Raisins have met with a fair inquiry. Buyers appear to find more difficulty than was expected to break the market. Some short sellers will probably have to enter the market, so as to secure raisins to meet the sales made two months ago. It looks as if they will be compelled to pay prices which will net a loss.

Nuts are coming in more freely and are meeting with a good demand at fairly firm prices.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	Sept.	Oct.	Nov.	Dec.	Jan
Thursday	5s11½d	5s11½d	6s0½d	6s01½d	6s02½d
Friday	5s11½d	6s00¼d	6s01½d	6s02½d	6s03¼d
Saturday	5s11½d	6s00 d	6s01 d	6s02 d	6s03 d
Monday	6s0¼d	6s01 d	6s02 d	6s03 d	6s04¼d
Tuesday	6s00½d	6s10½d	6s02½d	6s03½d	6s04½d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market for P. S.
Thursday	32s3d	32s6 l	32s3d	Steadily held.
Friday	32s3d	32s6d	32s3d	Firmly held.
Saturday	32s3d	32s6d	32s3d	Steady.
Monday	32s3d	32s6d	32s3d	Steadier.
Tuesday	32s6d	33s0d	32s6d	Improving.

To-day's cablegram is as follows:

LIVERPOOL, Sept. 28.—Wheat—Less disposition to buy; California spot lots, 6s 5d; off coast, 32s 6d; just shipped, 33; nearly due, 32s 6d; cargoes off coast, firm; on passage, firm but not active; Mark Lane wheat steadier; French country markets, steady.

San Francisco.

WHEAT.

	Seller '92.	Buyer Sept.	Buyer Oct.	Buyer Dec.	May
Thursday, highest	....	....	....	133⅞	....
" lowest	....	....	....	133⅛	....
Friday, highest	129	128½	....	134⅛	....
" lowest	129	128½	....	133⅝	....
Saturday, highest	....	....	....	134⅝	139
" lowest	....	....	....	134⅛	138½
Monday, highest	....	....	....	136½	141
" lowest	....	....	....	135⅝	140⅝
Tuesday, highest	130½	....	....	136⅝	143½
" lowest	130	....	....	135⅝	139½

The following are to-day's recorded sales on Call:

Morning Informal.—Wheat, Buyer December, 500 tons, $1.35⅞; 400, $1.35½. Buyer January, 400 tons, $1.36½ per ctl. Regular Session.—Buyer December, 500 tons, $1.35½; 100, $1.35⅛. Seller 1892, 100 tons, $1.29⅝ per ctl. Afternoon.—Buyer December, 1700 tons, $1.34⅞; 200, $1.34⅝ per ctl.

BARLEY.

	Seller '92.	Buyer Sept.	Buyer Oct.	Buyer Dec
Thursday, highest	....	....	83⅞	88⅞
" lowest	....	....	83⅛	87⅞
Friday, highest	83½	....	....	88⅞
" lowest	83	....	....	88⅞
Saturday, highest	....	....	....	89
" lowest	....	....	....	88⅞
Monday, highest	85	....	85½	90½
" lowest	85	....	85¼	89⅞
Tuesday, highest	....	....	....	91½
" lowest	....	....	....	90½

The following are to-day's recorded sales on Call:

Regular Session.—Buyer December, 100 tons, 91c; 100, 90⅞c; 100, 90½c; 500, 90c; 100, 89⅞c. January, 100 tons, 9 ⅜c; 400, 90½c.

Eastern Markets.

The following shows the closing prices of wheat for the past week at

New York.

Day.	Sept.	Oct	Nov.	Dec.	May.
Thursday	....	131⅞	134½	137	147
Friday	131½	132½	135	137½	147
Saturday	13 [illegible]	132½	135	137⅜	147½
Monday	133	133½	13[illegible]½	13[illegible]¾	148½
Tuesday	133	132½	136	138⅛	148

The following is to-day's telegram:

NEW YORK, Sept. 28.—Wheat, 79⅞c for October, 82⅞c for December and 88⅝ for May.

Chicago.

Day.	Sept.	Oct.	Dec.	May
Thursday	123½	123¾	128½	137
Friday	122¾	123	127⅞	136
Saturday	....	123⅝	12[illegible]	136
Monday	124⅛	124⅝	128¾	1[illegible]6⅞
Tuesday	123½	124	128½	136⅞

The following is to-day's telegram:

CHICAGO, Sept, 28.—Wheat, 74c for October 76⅞c for December and 81⅝c for May.

Markets by Telegraph.

Canned and Dried Fruit.

NEW YORK, Sept. 25.—It has been a dull, uninteresting week in canned and dried fruits. Operators are not in force. Many have prolonged their vacation in consequence of threatened sickness in the city, and others seem disposed to await some actual marketing of coast goods, especially such as will have foreign competition, before committing themselves to prices. Canned fruits are nominally as high as before. Dried peaches show light sales at 12½@16c spot. Large-sized prunes are easier. Sales, two carloads of fifties at 10¾c and forties at 11c free on board. It would be difficult to duplicate these rates at the close Raisins are without new comment. Three carloads of new were taken at $1.65 for layers, 5c for three-crown bags and 4c for two-crown. These are for mixing with our old to fill numerous western orders. There is more or less of a hitch in the apricot trade, owing to the rejections that have occurred. Perfect lots are stiff and salable at 15@18c.

Eastern Wool Markets.

NEW YORK, Sept. 23.—*Bradstreet's* says: Manufacturers are taking considerable wool, but it is mostly of two or three grades. Territories are selling freely at a decline. Buying is mostly of fine medium wools, which are in large supply. Fine Territories are quiet and hard to move. Fleeces are still in strong demand and firm. Stocks are rather light. There is a fair demand for Texas wools, but the supply of spring wools is small, add fall wools have not as yet come forward. Some large sales are reported of California wool. In pulled wools there is very little doing. Sales are mostly of B supers. Australian wools are quiet and firm. Very little interest is being taken in the London sales because there is very little wool offering which is suitable for this country. American buyers have secured only small lots. Prices are held firm in choice wools, but low-grades are weak and off in price. Carpet wools are in strong demand, and are selling quite freely. Prices are very firm, and the tendency is toward an advance Importers are experiencing considerable difficulty in obtaining their wool.

NEW YORK, Sept. 26.—A heavy outgo of Territorial and unwashed wool is again noted. It is quite evident that numbers of holders have modified their earlier views of value for these grades from the ranges of prices that have ruled in the past fortnight. This, however, does not indicate that a quotable decline has occurred. It is because more lots that had to sell as they run have been put on the market straight. Choice collections are no lower, nor do they show a weakness beyond the fact that they will be kept on a parity with other and higher styles. Certainly, the general offerings remain liberal. All foreign wools are active. There is considerable buying ahead and supplies are light, with a tendency to advance. The effect of the cholera scare is being felt in a marked degree. All steamers are closely watched and no wool is allowed to land without a certificate from the local health authorities, and it is understood that orders have been given to disinfect every package of imported wool, regardless of shipping points. Several good blocks of California sold this week at New York. The sales here were 826,000 pounds of domestic and 300,000 pounds of foreign, chiefly Montevideo.

Boston sold 2,864,800 pounds of domestic and 614,000 foreign. Philadelphia says heavy general supplies, especially of Territory, give buyers an independent feeling. There is a mixed volume of business at that city.

Miscellaneous.

NEW YORK, Sept. 26.—Honey is firm. There is room here for all the coast can spare.

Lima Beans—Quiet at $2@2.05.

Hops—Dealings continue light. Two carloads new California were offered at 20@22c, but were not taken There is a fair showing of contract trade with brewers at 18@20c for State, the lower price for interior business.

Foreign Grain Review.

LONDON, Sept. 26.—The *Mark Lane Express* in its weekly review of the British grain trade says: Deliveries of English new wheat are increasing and held at 20s a quarter. Millers expect to find 200,000 quarters salable weekly at 30s level. Foreign wheats are rather better and California steadier. Cargoes of American red winter quoted at 26s 7d. American flour averages 20s; the highest, 26s. Barley and oats higher. American corn, 23s. To-day's wheats were firmer, though new was in less favor. Flat and round corn was 3d cheaper. Flour dull. Malting barley firm.

General Remarks and Statistics.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending Sept. 27, '92, were as follows:

Flour, qr. sks	99,125	Bran, sks	17,537
Wheat, ctls	375,424	Buckwheat "	
Barley, "	97,327	Middlings "	2,607
Rye, "	1,362	Chicory, bbls	60
Oats, "	10,200	Hops, "	456
Corn, "	2,526	Wool, "	2,810
*Butter, "	1,196	Hay, ton	2,572
do bxs	551	Straw, "	80
do bbls	156	Wine, gals	209,400
do kegs	38	Brandy, "	1,746
do tubs	21	Raisins, bxs	500
do ½ bxs	50	Honey, cs	291
†Cheese, ctls	825	Peanuts, sks	277
do bxs	112	Walnuts "	14
Eggs, doz	18,250	Almonds "	84
do " Eastern	94,500	Mustard "	7,480
Beans, sks	12,748	Flax "	....
Potatoes, sks	31,559	Popcorn "	....
Onions, "	6,459	Broom corn, bbls	....

*Overl'd, 150 ctls. † Overland, ctls.

Exports by Sea from San Francisco from July 1 to Sept. 22.

	1892-93	1891-92
Wheat, ctls	2,465,336	5,024,756
Flour, bbls	275,220	270,656
Barley, ctls	533,337	293,543

Tonnage Movement.

From reliable advices up to Sept. 28, the following summary tonnage movement is compiled:

	On the way 1892.	On the way 1891.	In port 1892.	In port 1891.
San Francisco	285,630	480,615	*156,618	80,28
San Diego	12,038	25,108	7,977	.....
San Pedro	5 825	3,471	....	13,067
Oregon	51,683	68,407	40,181	
Puget Sound	28,858	38,730	.....	
Totals	384,024	566,331	214,844	93,347

*Engaged for wheat, 1892, 31,542 1891, 65,013.

Cereals.

On September 1 the stocks of wheat in Continental ports were 6,602,000 against 9,754,000 bushels for the corresponding time last year.

The Liverpool *Corn Trade News* reports that during the past year the imports of wheat of the principal importing countries amounted to 438,400,000 bushels, of which the United Kingdom imported 178,000,000 bushels, France 26,000,000 bushels, Germany 52,000,000 bushels and Italy and Holland 15,000,000 bushels each, with the balance scattering.

The weekly crop bulletin of Illinois states that the yield of rye is the smallest average per acre for the last 33 years, with the single exception of 1878. The average yield is only 14 bushels.

The exports of wheat and flour from the United States from July 1 to September 15 have been in round numbers 39,000,000 bushels, against 50,000,000 last year. This is a decrease of 11,000,000 bushels, while interior arrivals have gained 9,000,000 bushels, making a total increase in American supply, compared with last year, of 20,000,000 bushels.

The London *Times*, in its monthly report of the condition of wheat in the United Kingdom, shows a deterioration in the condition of wheat of 5½ points, and of 5.9 points in beans, whereas barley has gained 1 per cent, oats 1.4 and potatoes 1.3 per cent. Compared with last year, the condition of wheat is 6.1 per cent worse, barley 9.1 better and oats 5 per cent better.

In the cereal year just ended the imports of wheat into the United Kingdom were 23,348,787 quarters of 480 pounds. Of this amount the Atlantic ports supplied 11,511,000 quarters, against 5,178,000 the previous year. Pacific coast supplies showed little change. The increase in the amount supplied by Canada was nearly 400,000 quarters, while India supplied 1,100,000 quarters more. On the other hand, Russia supplied 2,300,000 quarters less, Germany about 500,000 quarters less and the Danube about 700 000 less The supply from Chile was about 375,000 more than last year.

The output of flour at Minneapolis for the crop year just ended, September 1, was 9,491,480 barrels, against 8,441,998 barrels the previous year and 7,073,015 barrels two years ago. The production in 1888-89 was 5,740,830 barrels, showing a net gain of nearly 4,000,000 barrels since the close of that season.

Wheat to-day was lower on Call for futures, but in the sample market there was no change to report. It is claimed that the bears think that by shading futures, farmers will be frightened into selling the actual grain. Offerings were quite light.

The Produce Exchange has published a neat pamphlet showing how farmers can operate on Call. The pamphlet, which is sent free on application, illustrates how dealing in futures is done. This is the first time the Exchange has had sufficient public spirit to publish such information for the benefit of outsiders.

Barley was fairly steady to-day for feed and strong for brewing grades. The shipping and home demand for the latter is quite active. Holders appear to be firmer.

Oats were fairly steady. The low prices are restricting receipts, and as the latter decrease, buyers appear more anxious.

Both corn and rye were unchanged. Remarks in the "Market Review" cover to-day's report of the market

New York mail advices report that the wheat coming in from the central States is generally poor.

Dairy Produce.

The most of dealers claim that at top prices gilt-edged butter is top heavy. We quote 32½c as an inside figure. The warm weather the past three days is in favor of firm butter.

Cheese was strong to-day with a fair local trade and shipping call reported.

Eggs are weaker. To place consignments, concessions were necessary. The warm weather is against the market.

Feedstuff.

The market was a shade easier to-day for millstuff, but so far as we were able to learn, there were no concessions from former asking prices. Roll and ground barley had a fair inquiry to-day.

Choice grades of hay are said to be scarce, and a slight advance is obtainable on outside quotations.

Fruit.

St. Helena (Napa Co.) *Star*, Sept. 24: A gentleman in Napa valley has received a letter from a friend in Santa Clara, stating that he knows of spot cash offers of $13 and that many people will not sell for less than $15 per ton for grapes. He states furthermore that a wine-maker offers $12.50 on three and six months time, and he does not think he can get any at that rate. Grapes in Napa valley are bringing $15, and soon wine-making will be in full blast. Dowdell & Son have leased the large Bourn cellar. The firm has purchased all of W. B. Bourn's grapes at $14 per ton. The price of grapes has now been placed at $15 per ton, which all concede to be a fair price. Mr. John Thomann authorizes us to state that he will pay $18 per ton for good mountain grapes and $16 per ton for good valley grapes.

The market for fresh fruit to-day was slow for peaches and common pears. Wine grapes were offering more freely, but holders were not giving concessions, so far as we know. Table grapes were fairly steady.

In dried fruits there was nothing new to report. Buyers are offish. They are looking for lower prices.

Live Stock.

Bullocks and mutton sheep have held to fairly steady prices. The offerings are not heavy, while the demand is improving. Hogs are selling at lower figures, under freer offerings and offish buyers.

Vegetables.

The market for garden stuff was slow to-day, but we were not able to hear of any change in quotations from prices ruling the past two days.

Onions were barely steady. The shipping demand appears to be offish, but a better inquiry is expected later on. There was a fair home and shipping demand. Receipts were fair. All choice good-keepers were readily placed.

Miscellaneous.

Poultry has ruled fairly firm for good-sized, well-conditioned hens, roosters and young poultry, but scrubby stock has been, as is usually the case, hard to sell. Ducks have been fairly steady. Turkeys have sold lower, but geese have sold higher.

Hogs are firmer. The crop on this coast is fully 25 per cent short of the yield in last year. At the East it is light, but in Europe it is about the same. The cholera scare is said to be against the market abroad, owing to less beer being consumed.

Wool is strong for better grades. The market shows signs of having touched bottom. The coarser grades are in better demand.

Honey is scarce and wanted at the higher quotations. The crop at the East is light.

Beans are fairly steady. The undertone appears to be strong.

Live Stock.

BEEF.		MUTTON.	
Stall fed	5 @ —	Wethers	6½ @ —
Grass fed, extra	5 @ —	Ewes	6 @ —
First quality	4½ @ —	Do Spring	7½ @ —
Second quality	4 @ —	HOGS.	
Third quality	3 @ —	Light, 99 lb, cents	5 @ —
Bulls and thin Cows	2 @ —	Medium	4½ @ —
VEAL.		Heavy	4½ @ —
Range, heavy	4½ @ —	Soft	4 @ —
Do light	5½ @ —	Feeders	3½ @ —
Dairy	5½ @ —	Stock Hogs	3½ @ —

Wine.

Red and White Wine from bay counties, vintage of 1891, per gal. in cellar lots 12 @ 20

Continued on next page.

General Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

SEPTEMBER 27, 1892.

BEANS AND PEAS		Do fair	1 20@ —
Bayo, ctl	2 00 @ 2 10	Common	1 20@ —
Butter	2 50 @ 2 87	Sonora	1 22½@ 1 35
Pea	2 25 @ 2 40	**HOPS.**	
Red	2 25 @ 2 35	1892 Bld	18 @ 20
Pink	2 15 @ 2 [illegible]	**FLOUR**	
Small White	2 25 @ 2 50	Extra, City Mills	4 00 @ —
Large White	2 00 @ 2 20	Do Country Mills	4 00 @ —
Lady Wash	2 10 @ 2 20	Superfine	2 60 @ 3 00
Lima	3 00 @ 3 15	**NUTS—JOBBING.**	
Fld Peas, blk eye	— @ —	Walnuts, Cal. lb	6½ @ —
Do green	1 75 @ 1 90	Do Choice	8½ @ —
Do Split	1 50 @ -	Do paper shell	9½ @ —
Split	4 50 @ 5 50	Almonds, sft shl.	12 @ —
BUTTER.		Paper shell	14 @ —
Cal. Poor to fair, lb	17 @ —	Hard Shell	7½ @ 8
Do good to choice	22 @ 27	Brazil	9 @ 10
Do Gilteged	30 @ —	Pecans small	11 @ 13
Do Creamery rolls	25 @	Do large	14 @ 16
Do do Gilte'ge	32½ @ —	Peanuts	3½ @ 4½
Eastern, ladle	17 @ 19	Filberts	11 @ —
Cal. Pickled	21 @ 24	Hickory	7 @ 8
Cal. Keg	20 @ 24	Chestnuts	11½ @ 16
Eastern Creamery	25 @ 30	**ONIONS.**	
CHEESE.		Silverskin	40 @ 50
Cal. choice cream	9½ @ —	**POTATOES.**	
Do fair to good	8 @ —	River Reds	60 @ 70
Do gilt edged	11 @ —	Early Rose, ctl.	50 @ 65
Do skim	5 @ 6½	Peerless	65 @ 75
Young America	— @ 12½	Garnet Chilies	65 @ 80
EGGS.		Burbank Seedlings	50 @ 75
Cal. "as is," doz.	18 @ 20	Do do Salinas	80 @ 1 10
Do shaky	14 @ 16	Sweet	1 00 @ 1 25
Do candled	21 @ 25	Extra choice sell for more money.	
Do choice	27 @ 30		
Do fresh laid	35 @ -	**POULTRY.**	
Do do sled wht	— @ 40	Hens, doz	6 50 @ 7 50
Eastern "as is"	17 @ 19	Roosters, old	6 00 @ 7 00
Do candled	21 @ 23	Do young	5 50 @ 6 50
Do selected	24 @ 25	Broilers, small	3 00 @ 3 50
Outside prices for selected large eggs and inside prices for mixed sizes; small eggs are hard to sell.		Do large	3 50 @ 4 00
		Fryers	4 00 @ 5 00
		Ducks	4 00 @ —
		do, large	5 00 @ —
		do, extra large	6 50 @ —
FEED		Geese, pair	1 75 @ 2 50
Bran, ton	14 50 @16 50	Turkeys, Gobl'r.	18 @ 19
Feedmeal	27 00 @30 00	Turkeys, Hens	15 @ 18
Gr'd Barley	19 00 @20 50	All kinds of Poultry if poor or small, sell at less than quoted; if large and in good condition, they sell for more than quoted.	
Middlings	21 00 @24 00		
Oil Cake Meal	— @25 00		
Manhattan Food ⅌ ctl. cabinet	— @ 8 00	Manhattan Egg Food ⅌ 100-lb. cabinet	8 00
HAY.		**PROVISIONS.**	
Wheat, per ton	7 00 @ —	Cal. Bacon, he'vy, lb	11 @ 11½
Do choice	— @12 50	Medium	12 @ 13
Wheat and Oats	7 00 @10 00	Light	13½ @ 14
Wild Oats	6 00 @ 9 00	Lard	8 @ 11
Cultivated do	5 00 @ 8 00	Cal. Sm'k'd Beef	11½ @ —
Barley	5 00 @ 8 00	Hams, Cal. salt'd	12 @ 13½
Alfalfa	7 00 @ 9 00	do Eastern	13 @ 14
Clover	8 00 @10 00	**HEEDS.**	
Straw, bale	30 @ 50	Alfalfa	— @ —
GRAIN, ETC.		Clover, Red	15 @ —
Barley, feed, ctl.	70 @ —	White	25 @ —
Do Good	81½ @ —	Flaxseed	2 00 @ 2 25
Do Choice	85 @ —	Hemp	3½ @ 4
Do Brewing	92½ @ —	Mustard, yellow	4 @ —
Do do Choice	96½ @ —	do Brown	3½ @ —
Do do Gilteedge	1 00 @ —	**WOOL.**	
Do Chevalier	85 @ 1 10	SPRING, 1892.	
Do do Gilteedge	1 15 @ 1 25	Humb't & Men'cino	17 @ 21
Buckwheat	2 00 @ —	Sac'to valley	16 @ —
Corn, White	1 30 @ -	S Joaquin valley	11 @ 16
Yellow, large	1 22½ @ —	Cala's & F'th'll.	16 @ 21
Do small	1 27½ @ —	Oregon Eastern.	12½ @ 19
Oats, milling	1 32½ @ —	do valley	18 @ 23
Feed, Choice	1 30 @ —	So'n Coast, def.	10 @ 12
Do good	1 25 @ —	Nevada (State).	15 @ 19
Do fair	1 17½ @ —	FALL, 1892.	
Do Common	1 05 @ —		
Surprise	1 47½ @ —		
Black Cal	1 05 @		
Do Oregon	— @ —	San Joaq'n, plain	6 @ 8½
Gray	1 22½ @ 1 30	do mountain	9 @ 11
Rye	1 05 @ 1 10	do lamb	8 @ 9
*Wheat, milling		**HONEY.—1892 CROP.**	
Gilt edged	1 35 @ —	White Comb, 2-lb	9½ @ 12½
Do Choice	1 32½ @ —	do do 1-lb frame	11½ @ 14½
Do fair to good	1 31½ @ —	White extract'd	7 @ —
Shipping, cho'ce	1 31½ @ —	Amber do	6½ @ 7
Do good	1 28½ @ —	Beeswax, lb	25 @ 28

* Buyers' bids

Dried Fruits.

APPLES—1892.		Sun-dr, pl'd, prime, bl	— @ —
Sun-dried, t's, com'on	2½ @ 3½	Do do choice	— @ —
Do do prime	3½ @ 4	Do do fancy	— @ —
Do do choice	4 @ 4½	Evap, peeled, in boxes, choice	17½ @ —
Do sliced, common	3½ @ 4	Do do fancy	20 @ —
Do do prime	4 @ 4½	**PEARS—1892.**	
Do do choice	4½ @ 5½	Sun-dried, quarters	— @ 3
Evap bl., ring, 50-lb box	8 @ 9	Do sliced	4 @ 5
Fancy higher		Evap, sliced, in boxes.	7 @ 8
APRICOTS—1892.		Do ring do	9 @ 10
Sun-dried, unbl. com.	4½ @ 5½	Unpeled, q'r'd bl'ch'd	10 @ 11
Do do prime	6½ @ 8	**PLUMS 1892**	
Do do choice	9 @10	Pitted, sun-dried	10 @11
Do bleached, prime	12½ @ —	Do evap. boxes, choice	— @ —
Do do choice	13½ @ —	Do do do fancy	— @ —
Do do fancy	14½ @ —	Unpitted	4 @ 5
Evap. choice, in boxes	15 @ —	**PRUNES—1892.**	
Do fancy, do	15½ @ —	Cal. French, ungraded	7½ @ 8
FIGS—1892.		Do graded, 60 to 100	8½ @ 9
Sun-dried, black	4½ @ 5	Do do 40 to 60	11 @12
Do white	3 @ —	Fancy sell for more money.	
Do do washed	— @ —	**RAISINS—1892**	
Do do fancy	— @ —	London Layers, cluster, ⅌ box	1 90 @2 00
Do do pressed	— @ —	Do choicest do	1 60 @1 70
Smyrna boxes	— @ —	Do prime, ⅌ box	1 40 @1 45
Do sacks	— @ —	Loose Muscatels, common, ⅌ box	— @ —
GRAPES—1892.		Do choice, do	1 25 @1 30
Sun-dried, stemless	3½ @	Do fancy, do	— @ —
Do unstemmed	1½ @ 2	Unstem'ed Muscatels, in sacks, ⅌ lb	4 @ 5½
NECTARINES 1892.		Stemmed do do	— @ —
Red, sun-dried	8 @ 9	Seedless do do	— @ —
Do Evap., in boxes	— @ —	Do do ⅌ 20-lb box	— @ —
White, sun-dried	9½ @11	Sultanas, unbl, bxs	— @ —
Do evaporated	— @ —	Do bleached, in bxs	— @ —
PEACHES—1892.		Halves, quarters and eighths 25, 50 and 75 cents higher respectively than whole boxes.	
Sun-dried, unpeeled, common, bleached	8 @ —		
Do do prime, do	10 @ —		
Do do choice, do	12 @ —		
Do do fancy	12½ @ —		
Evap. unpe'l'd, choice	12½ @ —		
Do do fancy	13 @ —		

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

SEPTEMBER 27, 1892.

Limes, Mex	4 50 @ 6 00	Do Bartlett	1 00 @ 1 50
Do Cal	2 00 @ 4 00	Quinces pr box	50 @ 65
Lemons, box	5 00 @ 7 00	Extra choice fruit for special purposes sells at an advance on outside quotations	
Do Sicily choice	— @ —		
Strawberries, per chest—Sharpless	5 00 @ 8 00	Beets, sk	— @ 75
Peaches, box	35 @ 75	Carrots, sk	40 @ —
Figs, blk box	25 @ 75	Okra, dry, lb	15 @ —
Do White	30 @ 50	Do green, box	25 @ 50
Apples	35 @ 65	Parsnips, ctl	— @ 1 25
Do Choice	75 @ 1 00	Peppers, dry, lb	10 @ —
Do Extra choice	1 25 @ —	Do grn Chili, bx	30 @ 40
Canteloupes, pr crate	50 @ 1 00	Do do Bells	25 @ 40
Melons, pr 100	5 00 @12 00	Turnips, ctl	75 @ —
Nutmegs, ⅌ box	25 @ 40	Cabbage, 100 lbs	50 @ 65
Grapes, pr box—		Garlic, lb	1 @ 1½
Do White	25 @ 40	Tomatoes	25 @ 35
Do Black	25 @ 65	Do River lrg bx	20 @ 35
Do Muscats	35 @ 60	String Beans, lb	1 @ 2
Do Tokays	40 @ 75	do do Wax, lb	2 @ 3
Do Royal Isabel	75 @ 1 00	Lima Beans	3 @ 4
Wine Grapes, Zinf'nd'l, pr tn	14 00 @20 00	Cucumbers, box	10 @ 25
Prunes, Hung'n	— @ —	Do pickle	½ @ 1½
Do German	50 @ 65	Mushrooms	— @ —
Do Coe's Gold'dp	50 @ 85	Egg Plant, bx	20 @ 50
Plums, ⅌ box	50 @ 85	Green Corn, box	50 @ 1 50
Pears	25 @ 75	Mar'fat Squash, ⅌ ton	5 00 @10 00

Auction Sales of California Fruits.

At Chicago

Sept. 21.—Four carloads: Beurre Hardy Pears, $2.55, Beurre Clairgeau Pears, $2.10@2.20; Bartlett Pears, $2.50; Onondaga Pears, $2.35; White Doyenne Pears, $2; Beurre Diel Pears, $1.70. Muscat Grapes, $1.85; half-crates, 85c; Tokay Grapes, half-crates, $1.10@1.20; Malaga Grapes, half crates, 70c; Strawberry Cling peaches, $1 10; Salway Peaches, $1 10; German Prunes, $1.55@1 65; Silver Prunes, $1.35; Ickwith plums, $1.45.

Sept. 21.—Six carloads: Fellenberg Prunes, $1.50@$1.55; Silver Prunes, $1.20; Peaches, 75c@$2.50; Beurre Hardy Pears, $2.55; Bartlett Pears, 90c@$3.15; Beurre Clairgeau Pears; $2.05@2.15; D'Anjou Pears, $2.20@$2.25, Howell Pears, $2.50; Muscat Grapes, single crates, 95c@$1.20; double crates, $2.25; Tokay Grapes, single crates, $1.25@1.45; Nelis Pears, $1.60.

Sept. 22.—Six carloads: Beurre Clairgeau Pears, $2.15@2 20; Diel Pears, $1.30@1.50; Vicar, $1.40@1.45; Quinces, $1.55; double crate Tokay Grapes, $2.90@3 40; sidgle crates, $1.15@2.10; doub'e crate Muscat Grapes, $2.30@2.45; single crates, $1 05@1.20; Duchess Pears, $2 15; Bartlett Pears, $1 50; Peaches, 55c@$1.35; Japan Plums, $1 70; Seckel Pears, 80c; Nelis Pears, $1.30.

Sept. 22.—Three carloads: Tokay Grapes, half-crates, $1.20@1 50; Muscat Grapes, half-crates, $1; Beurre Hardy Pears, $2.05@2.25; Onondaga Pears, $2@2.30; Howell Pears, $2 50; Doyenne Pears, $2@2 10; Duchess Pears, $2 05; Bartlett Pears, $2@2.10; Strawberry Cling Peaches, $1.10@1.15; some bad, 75c; Salway Peaches, $1.15@1.20; George's Late Peaches, $1.75; German Prunes, $1.10@1.65; Silver Prunes, $1.25; French Prunes, $1.25.

Sept. 23.—Five carloads: Tokay Grapes, $3.10; half-crates, $1.30@1.50; Muscat Grapes, half-crates, $1.15; Bartlett Pears, $2 70; De Comice Pears, $2.60; Beurre Hardy Pears, $2.50; Beurre Clairgeau Pears, $2.30, Glout Morceau Pears, $2.40; Duchess Pears, $2 05@2.25; Winter Seckel Pears, $2; White Doyenne Pears, $1 90@2.45; Malaga Grapes, half-crates $1; Salway Peaches, $1.10@1.25; Picquet Late Peaches, $1.05; Golden Cling Peaches, $1.05; Red Nectarines, $1.20. Some fruit in a damaged condition sold for less

Sep. 23.—Three carloads: White Doyenne Pears, $2.85; Beurre Hardy Pears, $2.45@2.55; Duchess Pears, $2.05; Diel Pears, $2.05; Winter Nelis Pears, $1.40; Easter Beurre Pears, $1.35; Bartlett Pears, $2 50@3 20; Pears, $1.50; half-boxes Pears, 75c; Figs, 35c; Peaches, 75c@$1.25; Tokay Grapes, single crates, $1.25@1.55; double crate Tokay Grapes, $2.95@3 40; Muscat Grapes, single crates, $1.15.

Sept 24.—Two carload: Muscat Grapes per double crate. $2.75; single crate, 60c@$1.35; Tokay Grapes per double crate. $3.35@$3.40; single, 70c@$1.60

Sept. 24.—Three carloads: Bartlett Pears, $2.30@3.10; Beurre Hardy Pears, $2 60; Onondaga Pears, $2.25@3; Beurre Clairgeau Pears, $1.00@2.20; Beurre Diel Pears, $1.60@1.80; German Prunes, $1.70; Silver Prunes, $1.35; Coe's Late Red Plums, $1 55; Golden Drop Plums, $1.35; Tokay Grapes, $2.80@2.85; half crates, $1 30@1 50; Muscat Grapes per half crate, $1@1.20; Malaga Grapes per half crates, $1@1.15; Salway Peaches, $1@1 15; Strawberry Cling Peaches, $1.15; Picquett's Late Peaches, $1 15; Quinces, $1.15@1.75.

Sept. 26.—Five carloads: Salway Peaches, 85c@$1; White Doyenne Pears, $2@2.35; Comice Pears, $2.70; Diel Pears, $2; Beurre Hardy Pears, $2.35; Winter Nelis Pears, $1.20@1.60; Bartlett Pears, $1 45@3.40; Vicar Pears, $1.50; Pears, 90c@$1.60; Figs, 40c; Peaches, 65c@$1.30; Cling Peaches, 75@90c; Picquet's Late Peaches, $1.25; Muscat Grapes, single crates, $1 10@1.40; double crates, $3; single crates Tokay Grapes, $1.15@1 60; double crates, $2.60@3.40.

Sept. 28.—Four carloads: Bartlett Pears, $2.30@3.10; Beurre Hardy Pears, $2 60; Onondaga Pears, $2 25@3; Beurre Clairgeau Pears, $1.60@2 20; Beurre Diel Pears, $1.60@1.80; German Prunes, $1.70; Silver Prunes, $1.35; Coe's Late Red Plums, $1.55; Golden Drop Plums, $1 35; Tokay Grapes, $2.80@2 85; half crates, $1.30@1.50; Muscat Grapes, half crates, $1@1.20; Malaga Grapes, half crates, $1@1.15; Salway Peaches, $1@1.15; Strawberry Cling Peaches, $1.15; Picquet's Late Peaches, $1.15; Quinces, $1 50@1 75.

Sept. 26.—Three carloads: Tokay Grapes, $2 80@3; half crates, $1.25@1 45; Muscat Grapes, half crates, $1.35; Malaga Grapes, half crates, $1 20; De Comice Pears, $2.60; Onondaga Pears, $2.35; White Doyenne Pears, $2.50; Bartlett Pears, $2.10; Beurre Clairgeau Pears, $1.80@2.25; Beurre D'Anjou Pears, $1 90; Salway Peaches. $1@1.10; German Prunes, $1.75; Silver Prunes, $1.35

At New York.

Sept. 21.—Three carloads: Figs 50c; Quinces, $1.80@2.20; Beurre Clairgeau Pears, $1.90@2 45; Salway Peaches, 95c@$1.55; Cling Peaches, 65c@$1 40; George's Late Peaches, $1.35@1.40; Yellow Peaches, 65c@$1.35; Pears, $1.40@1.80; Muscat Grapes, $1.20@1.40; Tokay Grapes, $1.50@2 35; Beurre Hardy Pears, $2 45; Silver Prunes, $1 75; Ickwith Plums, $1.65; Seckel Pears, $2@2.45.

Sept. 22.—Two carloads: Salway Peaches, $1.40@$1.65. George's Late Peaches, $1.30@1 55; Levi Cling, Peaches, $2; Heath Peaches, $1 20@1.40; Figs, 95c; half-crate Tokay Grapes, $1.50@1.65; double-crate Tokay Grapes, $4@4 05; half-crate Muscat Grapes, $1.20; double-crate Muscat Grapes, $2.55@2.60.

Sept. 22;—Two carloads: Salway Peaches, $1.50@2.05; George's Late Peaches, $1.25@2.60; Heath Cling Peaches, $1.20; Yellow Peaches, $2; Winter Nelis Pears, $3; half-crates Tokay Grapes, $1 40@1.65; double crates, $3.85; half-crates Muscat Grapes. $1.45; double crates, $2.80@2.90; Black Morocco Grapes, single crates. $1 60@1 80

Sept. 26.—Two carloads: Salway Peaches, $1.35@1.60; George's Late Peaches, $1 35@1.40; Yellow Peaches, $1.25; Figs, $1.50; Muscat Grapes, single crates, $1.05@1.30; Tokay Grapes, single crates, $1.20@2 60.

Sept. 26.—Three carloads: Tokay Grapes, $3.65@3.70; half crates, $1.65@1 80; Muscat Grapes, half crates, $1.40; Cornichon Grapes, half crates, $1.70@1.75; Salway Peaches, $1.10@1.0; Picquet's Late Peaches, $1 15; Bartlett Pears, $2.85@3.30.

At Minneapolis.

Sept. 21.—One carload: Tokay Grapes, $1@1 20; Muscat Grapes, 30@90c; Peaches, $1.20.

Sept. 22.—One carload: Peaches, 85c@$1.15; Muscat Grapes, half-crates, 60c; Tokay Grapes, half-crates, 45c@$1.25

Sept. 22.—Two carloads: Muscat Grapes, half-crates, $1; French Prunes, $1 10; Salway Peaches, 85c; George's Late Peaches, 80c; Bartlett Pears, ripe, $2 25.

Sept. 23.—One carload: Silver Prunes, $1.70; German Prunes, $1.50; Beurre Hardy Pears, $2.55; Howell Pears, $2 30; De Comice Pears, $1.75@2.40; Duchess Pears, $2@2 35; Lawrence Pears, $2.10; Beurre Clairgeau Pears, $1 85@1.95; Quinces, $1.60.

Sept. 24.—One carload: Pears, $1.25@2.45; Quinces, $1.55@1.60.

Sept. 23.—Four carloads: Silver Prunes, $1.70; German Prunes, $1 50; Beurre Hardy Pears, $2 55; Howell Pears, $2.40; De Comice Pears, $1 75@2.40; Duchess Pears, $2@2.35; Lawrence Pears, $2.10; Beurre Clairgeau Pears, $1.85@1.95; Quinces, $1 60.

Sept. 24.—One carload: Pears, poor condition, $1.25@2.45; Quinces, $1.55@1.60.

At Omaha.

Sept. 22.—Three carloads: Pears, $1.50@3; Quinces, Quinces, $1 50@1.75; Tokay Grapes, single crates, $1.25@1.50; Peaches, $1@1.25.

Sept. 23.—Two carloads: Arrived in good condition. Quinces. $1.50; Pears, $1.50@2.50.

Grain and Wool Bags.

Calcutta, spot	5½ @	6
Wool Bags	36 @	38

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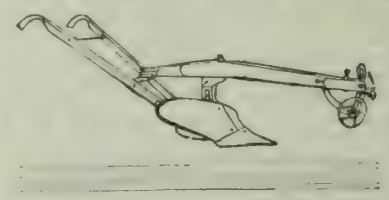

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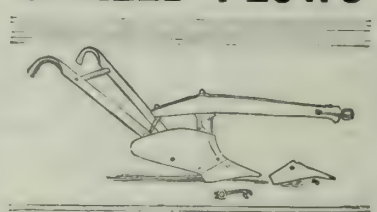

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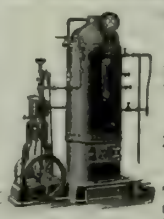

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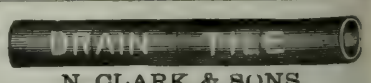

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Windmills.

Our reporter, while taking in Stockton Fair, as very much pleased with the Improved ercules steel and iron windmill made by R. . Wilson, one of the largest manufacturers of indmills on the Pacific Coast. His large ops are run to their utmost capacity to fill ders. Mr. Wilson has just perfected a new ethod of making wooden tanks non-rinking, and has applied for a patent hereon. It adds but little to the cost of the nk and is superior to galvanized iron. Com-ning his steel windmill "Hercules" with the ew wooden tank, he has an outfit that very farmer and ranchman needs. In addi-on to windmills in his large plant, he supplies ll kinds of tanks and pumps if parties desire hem.

One peculiar feature of Mr. Wilson's mills is hat he gives a written guarantee with each hill that he sets up that if it does not work atisfactorily it can be returned without any harge for services whatever. It is undoubtedly rue that in the line of manufacturing agri-ultural implements Stockton leads any city in he State, and Mr. Wilson's windmills are mong the most popular windmills on the acific coast. Parties wishing information n this subject would do well to send for a ircular.

The State Fair, 1892,

Proved a grand success, and also the exhibit of he Manhattan Food Co., Charles Kertell man-ger, elicited the unanimous praise of the vis-tors. Their display was very artistically ar-anged, showed great taste, and proved the nost meritorious exhibit in the Agricultural Department, thus receiving the California State Fair's gold medal, 1892. The Manhattan Food Co. received the silver medal at State Fair, Sacramento, 1891, and also at Stockton Fair, 1891.

Some of our largest ranchers and poultry raisers in California and the East are loud in praise of this food (Red Ball Brand). Its extraordinary assimilative properties justly claim for it the merit of economy.

Thoroughbred Swine.

Mr. J. B. Ashley of Linden, California, made an exhibit of thoroughbred swine at the recent Stockton Fair that was highly commendable. He had the noted breeds Small Yorkshire, Victoria, Essex and Poland China, the entire herd consisting of over 50 head of registered and selected from some of the leading prize-winning herds in Nebraska and Missouri. Mr. Ashley makes a specialty of this class of stock, and from the fact that he took every prize in his class at the Stockton fair augurs well for the line of blood that he has in his herds. Mr. Ashley is reported to be an upright, reliable gentleman, and any one seeking information in this line will get facts that can be relied upon. For the class of hogs that he has, he is selling them at low rates.

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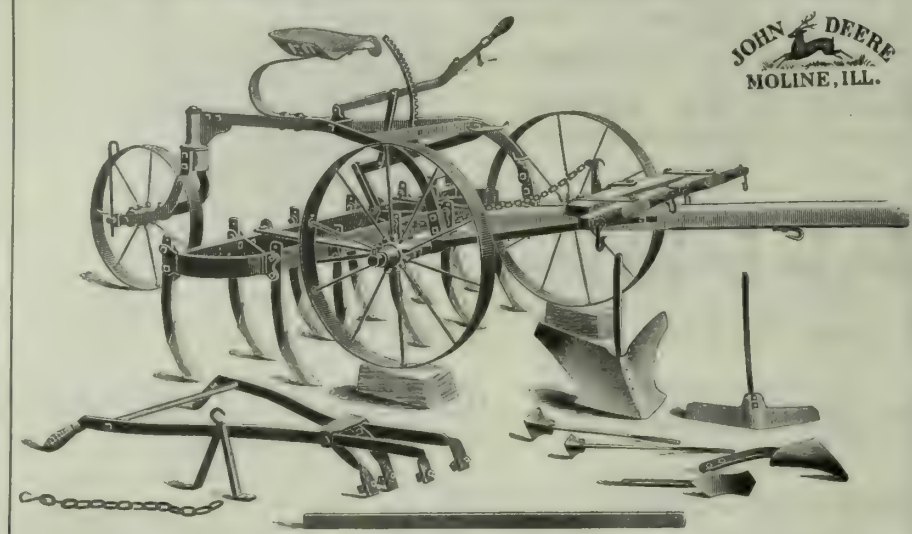

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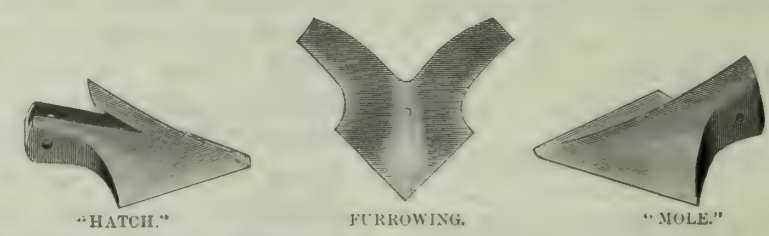

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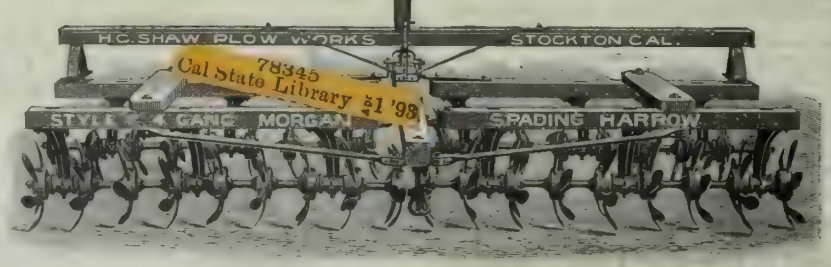
KING OF PULVERIZERS FOR HARSH, REBELLIOUS SOILS.

Matchless for Pulverizing Salt Grass and Other Sods.

The style "E" is designed for use in soils where any other implement of its class is not expected to work successfully. Intended for clay, or "adobe" soils, and particularly for pulverizing hard, tenacious "adobe" clods, in reducing "adobe" summer-fallow lands to a condition suitable for receiving the seed grain before the fall rains, it has leaped into prominence and favor, and we are pleased to say that it still maintains its reputation, won under great difficulties.

The front gangs throwing outward and the rear gangs throwing inward cause a most complete pulverization of all the surface and no furrow or ridge is left in the middle, as the rear gangs throw toward each other, leaving the whole "cut" of the harrow perfectly level and smooth.

The rear gangs of spades are so set that they run between the front gangs, thus presenting a cutting surface to the earth **every three inches,** whereas any two-gang disc or other harrow does not present a cutting surface to the soil any nearer than six inches. Owing to its peculiar construction, the style "E" Spading Harrow will do three times the amount of execution that any other kind of implement can possibly accomplish in the same time. The style "E" is a double machine, and by reason of one set of spades throwing the soil one way and the other set throwing the soil in an opposite direction, it accomplishes its work at one operation, or in going over the land once only, where disc or other harrows could not do the work in going over the land less than three or four times.



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The peculiar shape of the blade is the same as those used on the style "A" Harrow, and any "points" set forth in regard to the style "A" Harrow apply also to style "E." The style "E" is unrivaled in its effectiveness for surface tillage of all harsh, tenacious soils, and often proves an effective substitute for the plow. It is made in six sizes, from 6 to 14 feet. Considering the amount of work accomplished it is very light of draft. It loosens, crumbles and lightens the soil, does not pack it, and does what no other implement in the world will do, viz:—leaves the soil thoroughly pulverized, stirring it from the bottom upward, in fine condition and exposed to the enriching influences of sun and air. It thoroughly covers seed grain and is a most economical implement to use for this purpose alone. It will cover from a fourth to a fifth more seed than any other implement used in broadcast sowing.

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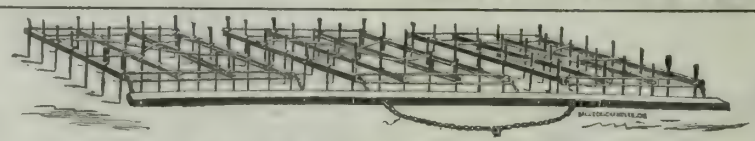

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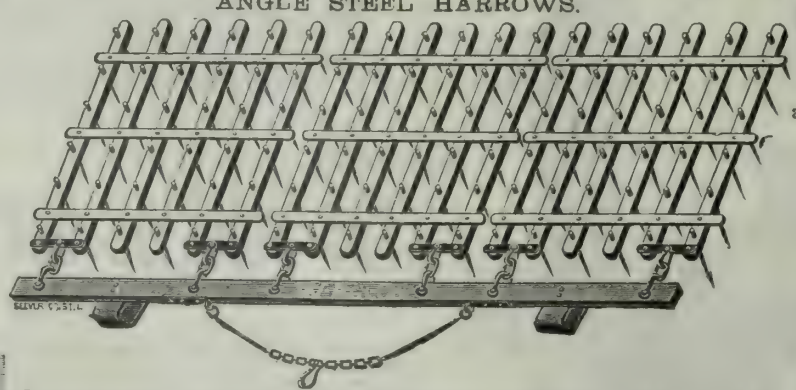

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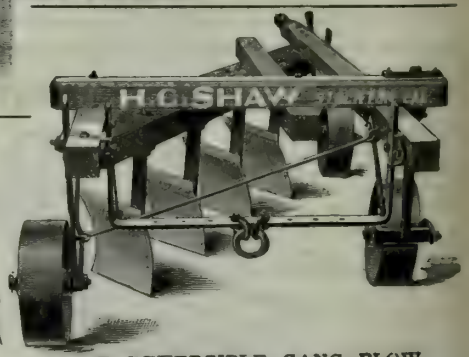

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PACIFIC RURAL PRESS

Vol. XLIV. No. 15. SAN FRANCISCO, SATURDAY, OCTOBER 8, 1892. THE DEWEY PUBLISHING CO. Office, 220 Market St.

California Chrysanthemums.

The glorious chrysanthemum season is at hand. Blooms of the earliest sorts are already appearing in florists' windows and in suburban gardens. These are, of course, but faint foreshadowings of the glories which will come later, as is now promised by the strength of the plants and the size of the buds which we see in our walks among the treasures of the best growers. So far as our observation goes, the outlook is very promising for 'mums of '92, and as the popular interest in the plant has been increasing in geometrical ratio during recent years, we expect that the fall shows will bring to view something finer than California has seen thus far.

The Californian enjoys marked advantages in the growth of the chrysanthemum, and can do much in the open air which has to be done under cloth or glass at the East and abroad. One can infer this much from the significant engraving on this page. Acres of chrysanthemums under a clear sky and not a sign of protection, unless it be that of the native oaks amid which they are growing at Sherwood Hall, Menlo Park, the suburban place of Mr. Timothy Hopkins. It is true that some growers rig up a sort of a fly of light cloth to protect the bloom from the excessive heat of the sun, which is occasionally strong enough late in the autumn to injure the purity and brilliance of the bloom, but protection, except from heat or dust is not thought of. Even the latest bloomers, which linger along until midwinter, do not find anything in the California winter temperature to disconcert them, but freely display their disheveled locks even amid the storms, bending by their own weight and that of the entangled raindrops and cast about by the breeze until they seem like sea nymphs vainly endeavoring to shake their tresses free from the gems which Neptune has showered upon them. Charming even in such distress, and when the winter garden would be otherwise well-nigh bereft of beauty, the chrysanthemum brings its marvelous forms and wealth of colors to make even the short, dark days delightful.

CHRYSANTHEMUM FIELD AT SHERWOOD HALL, MENLO PARK, CAL.

But it is the midseason varieties, of course, which carry the greatest weight of glory. In November the season is at its height, and then there is seldom rain enough to disarrange a bloom or drive an admirer to shelter. The heat and glare of midsummer are over, the winds are resting for later exertions, and amid the most delightful surroundings of warmth and quiet the queen of autumn displays her marvelous charms.

This exceptional adaptation of the autumn climate of California to the needs of the chrysanthemum has ed Californians to enlist most zealously in the service of this ruling goddess of the floral world. Even in distant parts where the culture of the plant is attended by greater difficulties than here, there seems no lessening of its popularity. Here its fame is clearly advancing, and we anticipate a permanent supremacy over all blooms but that of the rose. The culture requirements are so few to secure garden plants of satisfactory quality, the arts by which the finest show blooms are obtained are so simple, and the extreme ease with which the plant is multiplied and disseminated—all these are elements of popularity which assure us that all we have done with the chrysanthemum up to this time is but a faint foreshadowing of its future.

By virtue of our situation, we are enjoying the direct results of all the efforts which are put forth for the improvement of this plant upon both hemispheres. Our direct importations from the home of the crysanthemum on the east coast of Asia mingle with the choicest honorbearers from the shows on the Atlantic slope and in England. Visitors who have admired those distant exhibitions say that the California shows surpass them. At San Francisco, Santa Cruz, Santa Barbara, Los Angeles and San Diego, notable displays have been held, and smaller towns have not been lacking in loyalty to the great autumn flower. Any one who has seen such exhibitions needs no exhortation to attend them, but there are hosts of our people who have no conception of the glories of these occasions. In this city, during the first week in November, the State Floral Society expects to turn the great Mechanics' Pavilion into a perfect blaze of chrysanthemum glory. All the people should aid this organization in its praiseworthy work, and, by patronage of its shows, make it possible to bring together floral exhibitions here superior in quality and extent to any held elsewhere. This is but what California should expect from people whom she has endowed with soil and climate which welcome enterprise beyond any thus far displayed.

The Race at Its Best.

We have had so many occasions to denounce racing as a feature of agricultural fairs, because of the gross immoralities and pernicious influences which too commonly attend the race, that it is gratifying to read of a speed contest which displayed all the innocent and desirable characteristics which such a contest can boast and a freedom from the evil characteristics which almost universally attend it. Such an account may be found in the letter upon another page, in which a well-known and esteemed contributor of the RURAL describes the Orange County Fair.

Some reader may claim, perhaps, that our approval implied in the foregoing sentence may be too sweeping; that our correspondent writes of the affair merely as she conceived it to be; that in her enthusiasm and in the purity of her own thought she saw no evil, though a more critical judgment would find much; that frequent allusion is made to the pools, and that though the correspondent looks upon pool-selling with the kindly eye of innocence, it is gambling all the same, and gambling in any form is vitiating, degrading, demoralizing and abominable. We are forced to admit something of this claim. We would have preferred to have read that the throng of good people, from which the so-called "sporting" element was conspicuously absent, had been content to let the contest be for the purse which was hung up, and have enjoyed all the interest and enthusiasm which the contest excited without indulging even a somewhat refined form of gambling.

But perhaps we expect too much at once. It would probably be an ideal contest against which no objection whatever could lie. It is possible that by ruling out at first the grosser forms of evil, there may be secured an evolution which shall proceed until the less objectionable shall also give way. It is certainly refreshing at least to read of a race in which the better elements of local society were conspicuous instead of the worst, and against which no charges of jockeying and chicanery can be urged. Almost all, too, will sympathize with the deep local interest which is so graphically described, and which evidently pervaded the whole community. For who can resist the appeal which equine nobility makes upon human interest and sympathy? Who, too, feeling the pride of home environment, can resist the patriotic glow of pride and affection for a horse which at that moment appears to embody, in a conspicuous way, home spirit and community interest? We confess to satisfaction in presenting a description of an affair in which even the most critical must concede that the better elements predominated.

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By The Dewey Publishing Co.

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Our latest forms go to press Wednesday evening.

ALFRED HOLMAN.....General Manager

San Francisco, October 8, 1892.

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BUSINESS ANNOUNCEMENTS.

[NEW THIS ISSUE.]

Irrigating Machinery—Byron Jackson.
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The Week.

Rain clouds are cavorting around the geographical extremities of California, but they are slow in approaching vital parts. It is just as well, for there are crops still out, although much finishing up in some lines has been recently accomplished. Dried fruit has moved out of the State as rapidly as the railways can handle it, and there will certainly be a great inflow of coin as the aggregate for this season's production. In spite of large supplies of dried fruits, the eastern quotations hold up well and the inquiry is good.

Growers of wine grapes are taking considerable comfort out of the fact that they are receiving a decent price for grapes for the first time in several years. It is true that there is a small crop to sell, and this fact has most to do with the advance in values. There is, however, a renewed confidence among the producers of wine grapes, who point to the recent victories of California wines at foreign wine-shows, and to other indications, as promising something of a reaction from the depression which has for some time prevailed. All the time, our producers are learning to handle grapes and grape juice more successfully, and will be able to furnish a better article than ever for the better price. If the tide should turn now, the winemen will be better able to hold the values. It will be fortunate in the long run if valves do not show boom colors, for a slow increase in production will probably better meet the future.

Nurserymen are getting many orders now for winter planting. If you intend to plant do not defer ordering. Many people have been disappointed during recent years by trying to get trees from empty nursery rows.

Fruit Canner Wanted in Australia.

At the last meeting of the State Horticultural Society B. M. Lelong, secretary of the State Board of Horticulture, announced that he had a place for an experienced canner to go to Australia, for the purpose of explaining the process of canning to the fruit growers of one of the colonies. Expenses and a liberal salary will be paid. Of course the best of references are required.

The cholera has ceased to be an issue in this country. The disease seems to have been effectually shut out from New York. In Europe the disease is still making some headway in new locations. Over 7000 deaths are reported from Hamburg, where the plague made its greatest stand.

The Garden Natural.

We recently alluded approvingly to a small work by William Robinson, the distinguished English horticulturist and landscape gardener, entitled "Garden Design," and promised later reference to some of the author's declarations. As previously stated, the work is controversial and its temperature at times is what an American would call red-hot. The author seems to have been lashed into fury possibly by circumstances which at this distance we do not understand, but we must remark that a quieter tone and a more gentle spirit would better befit the subject and the normal disposition of the author. We trust that ere long there may appear a book of equal bulk which shall treat of the subject constructively and not destructively, and a little expansion of constructive points which the little book really contains would furnish a welcome brochure to those who do not care to pursue the subject in more pretentious works which are extant.

The season of the year invites the Californian to thoughts upon landscape gardening. The early rains, which cannot be long deferred, will lead many, both old residents and newcomers, to begin upon the improvement of home environment. Perhaps the first thought will be of a plan, and with too many, possibly, the problem will be to make the place fit some plan instead of the truer conception of some plan to fit the place. Before determining, however, upon an outline of procedure in any individual case, it is well to reflect upon general considerations of garden design. Such consideration will be fostered by a few suggestions which we propose to draw from Mr. Robinson's work, to which allusion has been made. The two types of garden design which are in sharpest contrast, and consequently most easily grasped, may be called the garden natural and the garden formal. Upon the former we shall isolate some of Mr. Robinson's sentences and paragraphs which combine to convey an idea of the principles upon which this line of designing proceeds:

Beneath all art there are laws, however subtle, that cannot be ignored without error and waste; and in garden design there are lessons innumerable both in wild and cultivated nature which will guide as well if we seek to understand them simply.

That men have never yet generally enjoyed the beauty that good garden design may give, is clear from the fact that the painter is driven from the garden! The artist dislikes the common garden with its formality and bedding; he cannot help hating it.

Why is the cottage garden often a picture and the gentleman's garden near, wholly shut out of the realm of art, a thing which an artist cannot look at long? It is the absence of pretentious "plan" which lets the flowers tell their tale direct, the simple walks going where they are wanted; flowers not set in patterns; the walls and porch alive with flowers. Can the gentleman's garden, then, too, be a picture? Certainly; the greater the breadth and means the better the picture should be. But never if our formal "decorative" style of design is kept to. Reform must come by letting Nature take her just place in the garden.

After we have settled the essential approaches, levels and enclosures for shelter privacy, or dividing lines around a house, the natural form or lines of the earth herself are in nearly all cases the best to follow.

In the true Italian garden on the hills we have to alter the natural line of the earth or "terrace" it, because we cannot otherwise cultivate the ground or move with ease upon it. The strictly formal in such ground is as right in its way as the lawn in a garden in the Thames valley.

I hold that it is possible to get every charm of a garden and every use of a country-seat without sacrifice of the picturesque or beautiful; that there is no reason why, either in the working or design of gardens, there should be a single false line in them. By this I mean hard lines, such as the earth never follows. * * * Also every charm of the flower-garden may be secured by avoiding wholly the knots and scrolls which make all the plants and flowers of a garden, all its joy and life, subordinate to the wretched conventional design in which they are "set out."

"Reproducing uncultivated nature" is no part of good gardening, as the whole reason of a flower-garden is that it is a home for cultivated nature. It is the special charm of the garden that we may have beautiful natural objects in their living beauty in it, but we cannot do this without care and culture to begin with. A wretched flowerless, pinched bedding plant and a great yellow climbing tea-rose are both cultivated things, but what a vast difference in their beauty! There are many kinds of "cultivated Nature" and every degree of ugliness among them.

The landscape gardener of the present day is not always what we admire, his work often looking more like that of an engineer. His gardening near the house is usually a repetition of the decorative work of the house, of which I hope many artistic people are tired.

The soul of true gardening is to show, on a small scale it may be, some of the precious and inexhaustible loveliness of vegetation on plain, wood and mountain. This is the necessary and absolutely only true, just and fair use of a garden!

These few sentences will serve our present purpose which is merely to incline the minds of those who are now pondering garden design toward a little deeper thinking than is usually given the matter. In California we are doing some very creditable elementary work and are also perpetrating some outrageous work as well. So far as our observation goes the country places are, as a rule, more praiseworthy than the suburban creations. In the suburbs the homemakers too often play all sorts of pranks with earth and plants. Having a moderate area of ground they can torture it in many ways without too great expenditure. In the country, at least in those parts of the State where the surface is broken and there is a natural growth of tree and shrub, some very satisfactory work has been accomplished in adding to the charms of the place while not sacrificing its natural beauties. If we have not advanced as far in instances of good gardening as perhaps might be expected of a people upon whom such wealth has been poured, we have fortunately not made many serious mistakes and have produced some fair work. There seems to quite a general leaning toward correct taste and appreciation of that which is fitting and beautiful. The more interest which can be aroused in discussion of the matters involved, the better will be the surety for our future.

Boys in the Vineyards.

We have certainly made great progress during the last few years in the substitution of white labor for Asiatic in all departments of fruit-handling. Ten years ago practically all the fruit was picked and packed by Chinese, and Chinese, too, were the main reliance in the canneries and drying establishments. Now, with a product multiplied many fold, and consequently requiring vastly greater labor supply, we are handling it almost wholly with white labor. Of course some Chinamen are employed everywhere, and in some districts perhaps largely, but the white laborers, young and old and of both sexes, have a decided lead in the race. This, too, has been accomplished without any great immigration, and without the systematic introduction of laborers from European countries which was regarded as the only possible means of replacing the Chinese a decade ago. We suppose the legitimate conclusion is that young Californians are really better stuff than was thought formerly, and the increased labor supply is largely the result of growth of a generation of youth from the babes who were in arms at the time the discussion we have alluded to was rife. This is encouraging indeed, and the public will have to revise its judgment that young Californians were mostly hoodlums.

Even the San Francisco boy seems to be making of late a much better record than was dreamed possible. Capt. McIntire, who used city boys largely for several years on Senator Stanford's place at Vina, has given them a good name. This year D. W. Parkhurst started his raisin-gathering with boy-power, at Fowler, Fresno Co., and seems to have succeeded well, upon a progressive policy, with them. He tells a *Chronicle* reporter some of his arrangements as follows:

Through a San Francisco employment agency a large force of white boys from 13 to 18 years of age was engaged. Those who were without means to pay their fare to Fowler had it advanced to them and subsequently deducted from their wages. A comfortable house had been provided for sleeping purposes, and each boy was required simply to furnish his own blankets.

A novel but satisfactory system of compensation was arranged, each boy being given as many dollars monthly as he was years old. The thirteen-year-old boy received $13, and the eighteen-year-old boy $18, and so on. To each boy an abundant supply of plain, well-cooked food was furnished free of charge. In addition, prizes of shoes, trousers and other articles of clothing were given regularly to the 18 boys out of 50 employed who gathered the highest number of trays above 60 every two days. These prizes proved a great stimulus to the efforts of the boys, and there was much rivalry for the reward of industry. It was found that under this system these San Francisco boys accomplished more and better work than either the Chinese or Japanese.

Strict discipline was enforced, there being regular hours for each portion of the day's duties, and obedience to the tap of the bell was required. No drinking, cigarette-smoking or card-playing was allowed, and, as a result, the boys all sent the bulk of their earnings home to their parents. Many of the young workers have already obtained permanent situations and will make their homes in Fresno county.

No doubt the city can furnish as much of this sort of material as the country can assimilate. We trust the experience of other men in other years to come will be like that described by Mr. Parkhurst.

The Pure Food Show.—The committee of the State Horticultural Society who were entrusted with the California exhibit at the Pure Food Exposition in New York, reported at the last meeting of the society it had been obliged to discontinue all arrangements toward making this exhibit. The reasons given were the cholera fright at New York and the fact that so few of the exhibitors were willing to pay anything toward the expenses of preparation and transportation of samples. The report was adopted and all subscriptions made were ordered returned.

Orange County Fair of 1892.

Written for the RURAL PRESS by AUGUSTA E. TOWNER, Santa Ana, Cal.

County Fairs and State Fairs; State Fairs and World's Fairs; Pavilion Shows and stirs at the race-track; that is what a big part of the American world is talking about now, from Maine to California. That is what Californians are interested in, anyhow; and little Orange county, only old enough to be holding its third annual fair, is as wide-awake as the best. *We* think so, at least.

Really, there is reason enough for it. Coming events sometimes cast glories before. Sure it is that the World's Fair preparations have lent unusual interest to this year's county fair. It opened Tuesday, Sept. 27th, and closed Saturday night, October 1st.

AT THE PAVILION.

There were crowds every night; but by day, mothers with their children were the principal onlookers. Still, the attractions at the pavilion vied with those at the racecourse more than usual. There was on a table 56x6 feet 150 jars of the county World's Fair exhibit—jars in sizes from ounces to gallons, containing, naturally preserved in chemicals, almost every product of our section—fruit and vegetables and even trout from mountain brooks.

This display is gratifying both to public and private vanity; it is from the county, and then the contents of each jar is an individual contribution. Onlookers, with expectant, admiring faces, read the labels, hunting for their own names or the names of friends.

But the magnificence of this exhibit is rivaled—overshadowed, indeed, by a locality and individual exhibit on the other side of the hall. This is from the famous Bell Canyon ranch, back 25 miles in the mountains, and is entered by its owner and his wife—Mr. and Mrs. Joplin. This is perhaps the finest show in this fair, or in any fair in the State. The main table is 50x5 feet, arranged in pyramidal shape with six rows of shelves. On this are 2000 jars of canned fruits, jellies and pickles—jars of various shapes and sizes and in beautiful variety of coloring. These are all booked for the World's Fair. Behind are rows of shelves against the wall, containing a more miscellaneous exhibit—more canned fruit, jellies and pickles, besides dried and fresh fruits in great variety, nuts and vegetables. And we are told these are all from the cultivated five acres of Mr. Joplin's stock ranch, and that the fruit is all put up by his wife.

"You needn't tell me," exclaimed a fascinated spectator, "no, you needn't tell me that California climate is enervating, or that southern California would fall out of the race if it wasn't for Eastern capital coming in here to buy that climate; no, sir!" Then he looks at the plump, gray-haired, bustling little woman (with whom, just then, Prof. Wiggins, secretary of the Southern California World's Fair Association is shaking hands congratulatory), and says: "So she did it all. Well, these women, they beat the dickens!"

But there are other sights, besides the preeminent displays bound for Chicago next year. From the candy booth to the curio booth, from the bunch of corn in the corner behind the door (from Garden Grove), so tall it takes a man and a boy to look to the top of it, and so sturdy one avers it might serve as piling for one of Chicago's many-storied blocks, to the fancy-work, embroideries and hand-painted china on the stage, there is more than the most veteran sightseer can "do" in one afternoon.

"That settles it," said one tired woman, sinking into the campchair a friend had thoughtfully provided.

"Settles what?"

"Why, my going to the World's Fair."

"So you've just made up your mind you will go, then?"

"Not much," and the tired woman gives an emphatic flourish of her right arm, which is meant to include everything, from the monster yellow globe in the decorations overhead, emblematic of Orange county, to the tempting array of cakes and breadstuffs to her left. "Not much. Think I want to die of brain fag? If a three-year-old county fair like this is going to tire me to take it all in, suppose I'm going to try one a thousand times bigger?"

"Oh, well," says the friend philosophically, "I shall see you starting all the same next spring; but don't forget the races to-morrow. It's Friday; Silkwood and McKinney, you know. Our own Silkwood, and they say orange is to be his color. All the girls are making knots of orange-colored ribbons for themselves, and neckties and hatbands for their gentleman friends. There'll be thousands and thousands in town then from all over the State."

"Going? Of course I am!" and the tired woman suddenly sat up very straight. "Why, John's got a box. Come, I'm going to get some yellow silk and ribbon before I go home."

AT THE RACE TRACK.

In a high cupola, the upper air modifying its blare, the Santa Ana brass band "discourseth."

Away down below, very indifferent to the music or thronging crowds around, fancy poultry in their pens peck their grain or sip water out of their bright tin cups; while in strong, neat corrals, the cattle, swine, sheep and goats eat and sleep or contentedly watch the restless bipeds around, contemptuous, probably, of so much uncare that they can conceive no purpose for.

Not so the blooded horses at their mangers. They are alert and bright-eyed. They have nerves, intelligence. Carefully tended and housed, brought out occasionally to race against time and each other, before admiring crowds, petted and cheered, they know what it is all about. Yes, indeed. The world and all that therein is was created for their benefit; man is their servant, and the chief end of man is to breed fast horses and race them forever. One can imagine them saying to each other, on baby-show day, for instance: "Nice little things up at the pavilion, but just *human* babies, you know. No blooded stock. Ten to one they won't get any sort of experienced training. Bet you half of 'em will be regular lag-tails, or else break on the track every time. Never'll have a bit of money put up on 'em."

"No," says another, with a snicker-like whinny, "but cost money like the dickens. Humans ain't of much account, anyway, for show or action. Now there's Silkwood. See the attention paid him. Heard some one say: 'If he wins to-morrow's race he'll make Willit's fortune—be worth $50,000 at least.' Daisywood and Laguna are proud as peacocks because they are Silkwood's colts. And well they may be. Now, I've seen McKinney, and I tell you—"

Here, it is probable, some officious "human" interferes, thinking that the horses are trying to bite each other, instead of whispering confidentially on racing matters.

Whatever the interest elsewhere, at the fair here the interest in the races is paramount and almost universal Horse-racing, well conducted and by gentlemanly drivers, is a fine sight. The Santa Ana race track is called the finest in Southern California. This year everything was carefully conducted. There were no accidents of note, no gamblers were allowed on the grounds, and there were few cases of theft, even on the grand race day.

From Tuesday to Saturday there were races every afternoon, races in the usual variety—trotting, pacing, running and mixed races, repeating races for yearlings and for two and three-year-olds, and so on. Purses and stakes were up, big and small, for many thousand dollars. But the special race—purse $1500—was on Friday, between Silkwood and McKinney. This race brought thousands to town, who would not otherwise have come. The day before this race pneumatic tire sulkies were used for the first time on the track. They were used at the grand race between Silkwood and McKinney.

Silkwood, a pacer, is a Santa Ana horse, a favorite here, a beautiful black. McKinney, a trotter, is a Los Angeles horse, though trained on the Santa Ana track. In two year's races he has made such a reputation that, proud as Santa Anans are of their horse, few probably felt sure that Silkwood could outdistance McKinney. In betting parlance, before Durfee's big bay came to town it was "one to one and one half in his favor," and the night before the race, "ten to eight" in his favor.

I got my husband to give me all the figures. He carefully explained them to me and said that they were just like a thermometer to tell how judgments were running as to the two horses. I had a good box at the race-course, right in front and almost opposite the wire and judge's stand. Then I had a good opera glass. I went first Thursday—ladies' day. It was not specially interesting—the ladies' part of it. They showed they could keep their seats well, and did a little hurdle jumping quite gracefully.

All right in front. A pretty, black-eyed Miss won a gold watch and a thin-faced woman a valuable side-saddle. But there was a trotting race for colt stakes for yearlings that made me realize how beautiful a well-built horse looks in swift motion. It was won by Daisywood, a Silkwood colt. "If Silkwood looks anything like that—is even bigger and nicer, as they say he is—I want to see him go," thought I, so I went again Friday.

There never was such a crowd in Santa Ana before. As I looked down from my box at the sea of heads, the forms on both sides of the track, up and down, hanging over the fences and ropes, over all the shed roofs, on carriage seats, on top of buses and coaches, swarming, clinging everywhere, while the boxes around me and grand stand back were crowded to bursting, I realized what an attraction there is in a good horse race.

It was a nice crowd. A quiet, respectable, amiable crowd. I could see no sign of any "toughs" or "roughs," or anything offensively betokening the "genus sport." The nicest ladies I knew were in the boxes. Staid farmers and their wives and children were down below in abundance, eager and interested. The thousands who came to see the race certainly were well-behaved. "It's ten to eight in favor of Silkwood," said my husband, just as I was seated in our box.

We all wore the Silkwood colors. We, my cousin and I, had made orange-colored silk "four-in-hands" for the gentlemen of our party. Orange color or yellow was everywhere, some ladies having huge bouquets of yellow dahlias.

There was a tension, an excitement in the air. The bell sounds from the judge's stand. There is a watchful hush, a murmur. Durfee on his pneumatic-tired sulky and with McKinney appears.

"He's a fine horse, a gamy horse," says one. "I declare, I shall be sorry to see Silkwood beaten." A shout arises, which increases into a roar of welcome, *Willits with Silkwood.*

After a little exercising, and after several trials, finally it was a "go."

That was an anxious moment for Silkwood's admirers. So many thought McKinney the better horse, but Silkwood led from the first and won in 2:14¼.

O, what a shout and rush! The black beauty was unchecked, blanketed, garlanded with choicest yellow roses, while his driver and owner was presented with as choice a bouquet and congratulated on all sides.

"That's all very well," said the sober-heads, "but Silkwood has done his best, and McKinney can beat that. He's good for 2:13. I expected Silkwood would win the first heat."

The bell sounds. Again there is an admiring murmur when McKinney appears, and a roar of welcome for Silkwood. With but little "jockeying" it is a "go." This time Silkwood, though only making the mile in 2:15¾, outdistances McKinney more than before, while the latter "breaks" twice.

"It was 10 to 6 in favor of Silkwood after the first heat," says my husband, "and now it's 20 to 6, and hard to get at that."

The sober-heads still feel far from sure of victory; but Silkwood's feminine admirers are sanguine.

"O," said a sparkling brunette in the box next to me, "how I do enjoy seeing Silkwood win! I don't believe I shall feel so happy when I'm married!"

Two little tots, exercising hand in hand in the open below the boxes, call up to a young lady in one of them—

"Who you for, Lizzie?"

"Silkwood. Who are you?"

"Silkwood, course. 'Kinney's no good."

"*Ding-dong*" goes the judge's bell.

There is a curious *timbre* in the shout that greets Silkwood this time. This heat may decide it. "Make it a walkover," the cry seems to urge. The horses start in a hush. For the first time McKinney is a little ahead at the "go." But, as every other time, Silkwood outdistances him in the first quarter, choosing his place on the course. But this time the big bay does not break, and keeps nearer Silkwood than before. Yet, as before, Willits is seen to measure the distance between, glancing over his shoulder, and, as one expressed it, "turning on just as much steam as he thought necessary to beat."

And Silkwood did beat, making the mile in 2:13¼.

Such a jubilant crowd! Silkwood almost smothered by crowding admirers, who bring him an armful of fragrant alfalfa-hay for a tribute; Willits carried off on the shoulders of his friends.

Sober-head said: "I declare, I didn't expect it."

The cry is "Silkwood forever." The judge's voice announcing his engagement at the Los Angeles races is almost unheard. The band strikes up "Hail to the Chief," as usual, though a merciless wag urges the leader to play "McGinty," saying "the big bay is going to be rechristened" under that cognomen.

People can hardly settle for the next race of three year olds, one of them, Laguna, a Silkwood colt. Laguna wins, trotting beautifully.

"Silkwood's stock is way up," says my husband to me, as we drive home, "but he'll have to look to his laurels in Los Angeles; he'll be matched with a 'leven-quarter pacer there."

Then I overheard one man say to another: "Ought to have seen my wife. Never saw her so enthusiastic. But I tell her it wasn't fair for McKinney. He's a tip-top horse in his class. He was outclassed, that's all. Say, heard when Durfee got here and saw Silkwood, he realized it, too. Went to chewing a rag right off to think he'd brought him down here. Told his friends so. That's the reason the betting changed so soon. Tell you there was $20,000 just laid in the bank and wasn't touched."

Everybody who had one wore an orange silk badge the rest of that day. It was the never-ceasing, joyful cry, "Silkwood!" Even the sleepy children, as they tumble into bed after the evening's entertainment at the pavilion, are heard to murmur, "'Kinney's no good."

And Saturday evening, too, when again amidst all the display at the pavilion, the crowds gather for the closing entertainment, the topic of Friday's grand race vies with all the other attractions. The farmer, proud of his 200-pound pumpkin or 75-pound watermelon, the lady of her hand-painted china or dainty bit of arrasene work, confessed to equal enthusiasm when Silkwood's name was mentioned.

"Have you heard the Silkwood cry?" I overheard one young lady ask another.

"No. What is it?"

"O, —— told me. You know, I wondered why they brought out that bunch of alfalfa-hay to him after the third heat. But it seems that the Los Angeles horsemen have all along been 'jossing,' as they say, the Santa Ana boys, saying Silkwood was no good—fed on alfalfa and pumpkins'—making fun that way. Well, the Santa Ana boys are going to charter a car next Wednesday and go up to the races at Los Angeles, wearing the Silkwood colors, and their 'cry' will be, '*Al-fal fah! San-tan ah! Silkwood! Silkwood! 'rah! 'rah! 'rah!*' I'm going to get some one to go up with me. I just must."

Exhibiting Stock in Show Condition.

HOME RIDGE FARM,
BAKERSFIELD, CAL., Oct. 1, 1892.

TO THE EDITOR:—I have been much interested in your complete reports of the State Fair, but from my personal experience and observations feel that I may be justified in taking exceptions to some of the comments of your correspondent, especially in regard to the *condition* of the cattle on exhibition. A number of years ago the breeding of fine cattle, particularly Durham, became almost a craze in the central States. Every breeder was ambitious to own prize cattle, and a pampered, show condition was the first requisite for a premium.

Practical stockraisers and farmers bought these ornamental cattle for useful purposes, and the experiment was disastrous. They learned by bitter experience an almost obvious lesson, viz: that the higher the artificial development, the lower and weaker the natural powers of reproduction. The reaction produced by this experience created an almost ruinous prejudice against thoroughbred cattle, which has required great care and judgment on the part of breeders to overcome.

A rule which has been almost universally adopted in prize rings in the eastern States, and which I am glad to note is gaining ground here is, that excessively fat animals are excluded from competition in breeding classes, and judges are instructed not to award premiums to animals that have been injured by overfeeding for the best results in breeding.

We heartily agree with your correspondent that to insure success, the breeder must give careful attention to all the details which tend to make his stock attractive and to maintain a high standard of merit. But he should not intimate that it detracts from the merit of a bull that he is not in "show condition," or of another, that "he had evidently come right off the lucerne pasture."

It is right on the lucerne pasture that the average farmer wants to put his thoroughbred bull, and he is glad of an opportunity to see just how the bull shows under such conditions.

It is not at all necessary in this age of well-informed

farmers that the faults be hidden or the good points helped in an animal by an extra layer of fat. A desire to cater to the general public and the praise of superficial observers has been a great temptation to breeders in the past to produce showy animals, and the high hopes of those who yielded have been wrecked on the rock of utility.

What has been said in regard to cattle applies with even greater force to the breeding of thoroughbred hogs, an industry just in its infancy in California, and one which, in its present condition and future outlook, is very promising.

I have referred to your report, not as an individual instance, but rather as a means of presenting a view of the question of prize exhibitions which is worthy of consideration. JAS. M. HUNTER.

THE VINEYARD.

Premiums for California Wines.

Several months ago Mr. Winfield Scott, Secretary of the State Board of Viticultural Commissioners, received a communication in which there was a request to the wine-growers of California to send samples of the products of their vineyards to the distillers' and brewers' exhibition, held in Dublin, Ireland, from August 15th to the 27th.

In response to this circular, 26 of the wine-growers sent samples of their products.

On Monday the secretary received the judges' report, from which it was seen that 11 of the exhibits had either received medals or special mention. The *Call* furnishes the following outline of results:

In white wines, it was pointed out that several of the exhibitors seemed to have been under the impression that age with these wines meant excellence. But they should not be kept as long in bottle or in wood as the majority of those sent from California appear to have been.

The Sauterne of H. W. Crabb was exceedingly good, nearest type to the Sauterne (French), and he was awarded a diploma for a gold medal.

The hock of the Napa Valley Wine Company had been a wonderful wine. It was awarded a diploma of the second class.

The Riesling of I. de Turk had been a good wine, but it had been quite long enough in bottle. It was awarded a diploma of the second class.

The Riesling of Jacob Schram was decidedly above the average type, and it was awarded a diploma for a gold medal.

Clarets are classed as a splendid type of wine, and just what is required in that country. It is pointed out that there is now some prejudice against white wines and an increasing demand for sound red wines, and the really important point for California growers to consider is their red wines. If they could put some sound wines on to the British and Irish market at say £10 per hogshead (48 gallons) in bond they would become formidable rivals to Bordeaux shippers.

The claret of Beringer Bros. was awarded a diploma for a gold medal, A. Haraszthy & Co. a certificate of merit of the second class, and G. Migliavacca a certificate of merit of the third class.

The judges were exceedingly pleased with the Burgundy wines and an encouraging feature on this point was that the trade for Burgundy was increasing in Ireland. The high class quality of these wines strengthened the opinion that in this department California could successfully compete with the Burgundies of France.

The Burgundy of the Italian-Swiss Agricultural colony was awarded a diploma for a gold medal; Inglenook vineyard, a second-class certificate of merit; Napa Valley Wine Company, a certificate of merit of the third class.

California growers are advised to turn their best attention to produce a port wine which could be sold in the Irish market from £20 per pipe of 115 gallons and upward (for beverage and for high class medicinal usage.) Sweetness must be avoided and dryness cultivated. Port wine, like claret and Burgundy, had an increasing tendency.

The ports of the Eisen Vineyard Company was awarded a diploma for a gold medal, and it was added that if they kept up that standard, they were on the right lines.

Sherry was not increasing in consumption, consequently stocks were ample, with low rates and keen competition, with a plethora of good quality.

The sherry of the Eisen Vineyard Company was awarded a diploma for a gold medal. The wine was very good indeed—perhaps rather full as compared with the wines generally consumed there.

In brandy a diploma for a gold medal was awarded George West & Sons of the El Pinal Vineyard. The striking resemblance of the 1882 vintage to old cognac caused some consternation among the judges. Such a sample was not expected from California, and the growers are congratulated upon the achievement. It was noteworthy that the other samples shown of different vintages by the same firm all bear unmistakable signs of the cognac type.

A diploma for a gold medal was awarded the Eisen Vinepard Company for Muscat and Tokay.

A diploma for a gold medal was also awarded A. Haraszthy & Co. for their champagne, which was peculiarly Californian, of an agreeable type.

To Help Difficult Fermentations.

Wm. Pfeffer writes to the *Tree and Vine* as follows:

The indications for the coming vintage point to a repetition of the vintage year 1885, in which year difficult fermentation had been the rule all over the dry-wine districts. Winemakers who understand the consequence of "stuck tanks" will gladly take any extra step in time in order to save nine.

The following nonpatented methods are not generally known, and will, I think, enable many to steer clear of difficult fermentation.

First, ferment in as small batches as you can—say not over a ton of grapes at a time—and should it happen with very sweet must that a small quantity of sugar is left, put the young wine in small casks of no more than 50 gallons capacity. Of course, in large concerns such proceeding is not applicable, but the following will do good service: Keep the pomace securely down at the bottom of the fermenting-tank, and, for equalizing fermentation in the whole tank, draw the liquid several times from the bottom and pump it on the top of the fermenting mass.

Still another way to prevent difficult fermentation is: Take the *half* fermented wine out of the fermenting-tank, press the pomace, and finish fermentation in the storage cask or tank. By this latter method, the storage cellar should not be very cool, as this could interrupt fermentation.

A PRIZE FOR CALIFORNIA WINE.—Dr. Ollino, Vice President of the Italian-Swiss Agricultural Colony, has received a cablegram announcing that the first prize gold medal had been unanimously awarded the wine display made by the colony at the Italo American Exposition at Genoa, Italy. This is regarded as a great compliment and triumph for California wines, especially for those made from Italian grapes grown on California soil. It is claimed that at the Exposition the wines were in direct competition with the best vintages of Italy.

The State Grange, P. of H.

ITS TWENTIETH ANNUAL COUNCIL NOW IN SESSION.

From Our Special Correspondent.

SAN JOSE, Oct. 5, 1892.

The Twentieth Annual Council of the State Grange of California was convened in this city yesterday at 10 o'clock and was called to order by Worthy Master Davis. The place of meeting was the Unitarian Church, a spacious and comfortable building which had been handsomely decorated for the occasion. The rollcall showed every officer of the State Grange to be present, and among the general attendance were the following:

ALHAMBRA GRANGE.—W. M., H. C. Raap and wife.

AMERICAN RIVER.—W. M., N. H. Lauredson and wife; Alternate, A. A. Harris; A. Harris, Mr. Jas. Cornell and wife, Miss Cecily Cornell, Miss Etta Cornell.

CARPINTERIA.—W. M., O. N. Cadwell.

DANVILLE.—Alternates, R. O. Baldwin and wife; Mrs. G. L. Everett, Miss S. E. Wood.

ELK GROVE.—E. W. Stickney, Mr. and Mrs. Stone, Miss S. J. Stone.

FLORIN.—Alternates, D. Reese and wife; Miss Lillie Casey.

EDEN.—Annie J. Gading, M. C. Christiansen, H. Mousen and wife, Miss Josie Sharai.

GLEN ELLEN.—W. M., C. W. H. Bruning and wife.

GRASS VALLEY.—W. M., J. W. De Golia and wife, Mrs. S. L. Richards.

GRIMES.—Alternates, W. W. Kilgore and wife.

HOLLISTER.—W. M., Gustav Brown; Alternates, Bates De Hart and wife.

INDEPENDENT.—W. M., Geo. Klinger; W. S. Elliott, M. E. Harrison.

LODI.—W. M., C. H. Wakefield and wife, J. D. Huffman.

LOCKEFORD.—Mrs. E. E. Lower.

MAGNOLIA.—John Thomas.

MERCED.—W. M., L. H. Applegate; Mrs. M. D. Atwater, Miss E. E. Atwater, Miss Nettie Brouse.

MILLVILLE.—Alternate, Mary W. Webb.

NEW HOPE.—Alternate, Mrs. Geo. Carleton.

NORTH BUTTE.—W. M., D. Fisher and wife, Miss Ether Mould.

PESCADERO.—W. M., I. C. Steele, Mrs. M. A. Chanttler, Mrs. E. Leighton, Miss J. F. Leighton.

PETALUMA.—W. M., C. D. Grover and wife, D. M. Winans and wife, Mrs. M. Kelsey, Miss M. Kelsey.

ROSEVILLE.—S. S. Gladney, J. G. Gladney.

SACRAMENTO.—W. M., S. H. Jackman and wife. Alternates, C. A. Hull and wife, M. Sprague, T. L. Hamilton, E. Greer and wife, Mrs. J. H. Hamilton, Mr. and Mrs. A. A. Krull, Miss Elva Brown, Della Krull, Myron Smith, Mrs. L. Danie's, Mrs. S. H. Jackman, Walter Greer and wife, Daniel Flint and wife, J. H. McKune and wife, Miss A. M. Wilcox.

SAN JOSE.—W. M., E. T. Pettit and Mrs. S. A. Bicknell. Alternates, Col. R. P. McGlincy and wife, Amos Adams, Mrs. P. A. Simons, Jacob Jowell, A. H. Simons, Thos. Hersey, Mrs. P. A. Simons, Col. R. P. McGlincy, W. H. Gilmore, Miss Georgia McBride, Ella I. Sanders, Hattie B. Wells, Mrs. S. A. Bicknell, Mrs. M. J. Hall, Jennie M. Sanders, Mrs. W. Beauchamp. T. A. Whidden, Mrs. Arbella Hersey, Mrs. M. S cord, Euclera B. Warcen, Mrs. S. J. Watkins, Miss Helen G. Adams, Mrs. M. J. Tarleton, Cyrus Jones, Mrs. M. J. Worthen, A. E Mintie, W. Beauchamp, Nellie Jefferds, W. C. Kingsbury, F. S. Jefferds, Sarah Kingsbury, Mrs. M. Barnes, Miss Julia Hayle.

SAN ANTONIO.—W, M., J. H. Martinus and wife.

SAN LUCAS.—Alternate, S. Sherwood.

SANTA ROSA.—Alternates, S. T. Coulter and wife, Mrs. Mary E. Saxton, E. W. Davis and wife, Chas. D. Bonner and wife, Ella C. Sutherland.

SEBASTOPOL.—W. M., Mrs. F. H. Lawton. Alternates, D. Litchfield, C. Wightman and wife, Mrs. F. H. Lawton, Miss E. Lawton.

SOUTH SUTTER—W. M., Mrs. M. E. Donaldson. Alternates, Rebecca G. Jones, Ann M. Roberts. Frank Donaldson, Mrs. W. E. Roberts, Miss May Donald on, Mrs. Ellen M. Boyd, R. A. Jones.

STOCKTON—W. M., N. E. Alling. Alternate, Miss B. Alling. Mrs. E. M. Stone, W. L. Overhiser and wife.

TEMESCAL—W. M., Walter Renwick and wife. Alternates, A. T. Perkins and S. Goodenough. A. T. Dewey, Mrs. S. H. Dewey, Miss Anita M. Dewey, Mrs. H. S. Brannan, Mrs. J. E. Gibson, Wm. G. Babcock.

TULARE—W. M., E. C. Shoemaker. Alternates, John Tuohy, A. J. Woods, Frank S. Chapin.

TWO ROCK—Mr. and Mrs. S. Q. Barlow.

VALLEY—Alternates, Mrs. M. Hook, G. P. Loucks.

WATERLOO—W. M., H. C. Strucke and wife.

WATSONVILLE—W. M., W. A. Bowman and wife. Alternates, A. P. Roache and wife. I. J. Cromarby, M. L. Cooper, Mrs. M. Fergusson, Mrs. G. N. Rowe, Vorce M. Roache, Mr. and Mrs. C. E. Bowman.

WOODBRIDGE—W. M. John S. Perrott. Alternates, John Thompson and wife. H. C. Shattuck.

YUBA CITY—W. M., P. L. Bunce and wife. B. F. Walton, Glen Harter, Geo. Ohleyer, Jr., Hattie S. Jones, B. F. Frisbie and wife.

This list of names is necessarily incomplete, since a great many have been tardy in registration. The list does not comprise more than two-thirds of those actually present, and it will be impossible to give a complete list until our next issue.

The time was largely given to the reception of reports, which were read by the several officers and submitted to appropriate committees. They are appended below in full, although it is possible there may be some changes before they have been acted upon by the committees and their final adoption by the State Grange.

Following the session a party of twenty-five ladies, upon invitation from the Vendome Stables, took a drive about the city, and upon invitation of Dr. A. E. Mintie, nearly all of the members of the Grange visited the rooms of the World's Fair Commission and viewed the exhibit which is being prepared for the World's Fair.

RECEPTION.

A reception tendered by the citizens of San Jose was an occasion of special interest, and every delegate participated in it. The following is the souvenir program:

1. *Organ Voluntary*.....PROFESSOR POMEROY.
2. *Solo*.... "O, Hush Thee, My Baby" "O, Dinna Forget" ....MRS. HILLMAN-SMITH.
3. *Reception to State Officers*.....*a*, Song of Welcome; *b*, Floral Presentation; *c*, Wand Drill by Little Girls. Under the direction of.....MISS WEBB and MISS JEFFREDS.
4. *Poem*....."The Granger's Welcome".....MISS ESTABROOK. Written for the occasion by Mr. E. F. Estabrook.
5. *Address of Welcome*.....HON. H. V. MOREHOUSE.
6. *Response*.....HON. E. W. DAVIS, Master Cal. State Grange.
7. *Male Quartette*.....*a*, "Grangers' Song;" *b*, "Fly Tender Birdling." 1st tenor, GEO. BABCOCK; 2d tenor, J. R. KOCHER; 1st bass, J. W. REYNOLDS; 2d bass, W. J. HAYWARDS.

This unique and attractive order of exercises was planned by Mrs. Amos Adams, with the assistance of Mrs. S. P. Sanders, and executed by those whose names appear with an artistic skill and close attention to detail that enlisted the enthusiastic approbation of the audience. Professor Pomeroy was unavoidably absent, but the voluntary was rendered in a way to delight the audience by one of San Jose's many musical artists, who are equal to any occasion or emergency. The solo of Mrs. Hillman-Smith was thoroughly appreciated, both for the culture of her voice and her attractive presence. Worthy Master Pettit was too modest to have his name appear on the program, but still gave us hearty assurance that the labor of preparation for entertaining this large assembly for a whole week had been a labor of love on the part of San Jose Grange. He also gave an interesting outline of the solid prosperity that has visited this city and State Grange alike since its first session here in '73.

The feature of the evening was a score of bright school girls, dressed in style suited to the occasion, who came marching in, each bearing a basket of flowers. After taking their places on the platform, in perfect time with the music of the piano, one after another came forward with her gift of flowers and recited a short poem, that seemed to have been composed specially for the occasion, and each presented one of the officers with her basket of flowers.

After that they returned and formed again on the stage, bearing wands about three feet long, gayly decked in blue ribbons. In perfect time to the music, they executed a fancy drill after the Dio Lewis system of light gymnastics that is so well calculated to train and develop, while entertaining, the child. All were graceful and showed careful training, but the leader, whose motions all were watching, was almost perfect in the grace and accuracy of her movements and equally perfect in her elocution when presenting her basket of flowers to the Worthy Master.

As we hope to have "The Grangers' Welcome" for publication, our readers can judge of its merits, but would have probably enjoyed it more had they listened to the hearty applause with which it was greeted.

The address of welcome by Hon. H. V. Morehouse was a scholarly and polished effort, showing how the prosperity of all classes rests upon that of the tillers of the soil. Worthy Master Davis responded in his usual happy style. Like all of us he was deeply affected by the interest shown in our Order by young as well as old, and hopeful of the future of a country whose chief pride is in the training of the men and women of to-morrow.

THE MALE QUARTETTE.—These songs were well calculated for the closing attraction of so pleasant an evening. Those more gifted with capacity to delight in harmony were engaged in a critical debate as to the comparative excellence of bass and tenor until the conclusion was forced upon the less critical that both were remarkable voices. Thus ended one of the pleasantest of all Grange receptions.

[We had hoped to be able to give a report of Wednesday's proceedings, but a delay in the mails from San Jose renders it impossible. We must go to press without the doings of Wednesday, but will give them with the reports for the rest of the week in the paper of the 15th inst.]

MASTER'S ANNUAL REPORT.

Brothers and Sisters of the State Grange of California: It is a pleasant duty to inform you that the Order in California is in the healthy and progressive condition that commands the labor, love and devotion of its membership and the respect and attention of its opponents. During the past year, our membership has grown in numbers, usefulness and ability. To-day, some of the leading and trusted men of California are proud to say hey belong to the Grange. These men of our Order are unlike the politicians of this day and generation, for they say, "the party belongs to them and they do not belong to the party." It would be a healthy condition of political affairs if more men controlled parties and fewer men were controlled by them.

Since our last annual conclave, many events have transpired which have, directly or indirectly, tried the metal of which the Grange is made. In every instance, so far as I know, the metal has been found good and true, and has nobly withstood all the assaults and strain made upon it.

In the Halls of Congress, the bills which were urged for

Continued on page 296.

HORTICULTURE.

Olive Varities on the Foothills.

Mrs. Emily Robeson, well-known as an olive grower and oilmaker near Auburn, Placer county, gave the following results of her experience at the last meeting of the Olive-Growers' Association in this city:

We have about eighteen different varieties of olives on this place, consisting of the following well-known kinds, viz: Rubra, Atro-rubens, Columella, Pendulier, Nigaina, Oblonga, Polymorpha, Macrocarpa, Regalis, Nevadillo Blanco, Manzanillo, Redding Picholine, and six varieties of the Mission. Of these, only the Rubra, Regalis, Manzanillo, Mission, and Redding Picholine have fruited in quantities necessary for practical oil-making. All of the other kinds are now in bearing, and we hope in sufficient quantities to thoroughly test their oil-making qualities this coming season.

As I understand only the results obtained from the varieties from which oil have been expressed are desired, I will confine myself to observations gleaned from the five kinds before mentioned, viz: Rubra, Regalis, Manzanillo, Mission and Redding Picholine.

The Rubra does remarkably well here. For four years in succession it has borne good crops and at the same time made fine growth. For two years we have made oil from this berry. It makes a fine grade of oil, of dark amber color, darker and heavier than the Mission. The oil flows from the pulp under the pressure very freely, in flakes as large as a silver quarter. The pulp after pressure is of a light color with reddish cast. This oil has a decided nutty flavor, and I imagine requires a cultivated taste to appreciate it fully.

As to proportion of oil obtained, would say that before filtering it ran about seven and a half pounds of oil to fifty-five pounds of berries, or, in other words, the yield was in the near neighborhood of 13 7-11 per cent.

The Regalis seems to thrive equally as well in the foothills. It is not, however, a uniform or regular bearer. The year before last the trees were loaded with fruit; last year they bore absolutely nothing. This year they are again full, which tends to demonstrate beyond peradventure that the Regalis is a biennial. The oil is, like the Rubra, heavy, of not quite so dark a color, but with a decided flavor. The yield is good, even better than that of the Rubra, running, as I now recollect, about 14 per cent. I noticed particularly that the oil seemed longer settling than other varieties.

The Manzanillo grows well, and is an even bearer with us, having gathered from successive crops. The oil made from the Manzanillo is lighter in color, and not so heavy as that expressed from the two varieties just mentioned. I like it personally better than the Rubra or Regalis. The yield obtained was not satisfactory, and I am inclined to think it will be found to prove more profitable to plant for pickling purposes than for oil.

As to the Mission, of course this tree being so generally planted throughout California, it seems superfluous to dilate to any extent upon it, in a letter to be read before a convention of olive-growers, any one of whom it is more than probable can give me more information on the subject in a single interview than I can impart in twenty such papers as this. I will content myself in saying that the Mission does probably as well at this altitude as any variety as yet planted, with the exception of its late maturity, the fruit sometimes not coloring until the middle of January. It is here, as elsewhere, not a uniform bearer, yielding a full crop every two years.

The percentage of oil will not vary far from an average of 13 per cent. The Mission, like all heavy oils, is not as palatable to those who are cultivating a taste for olive oil as the lighter oils. It is more appreciated by those who have long been accustomed to its use.

Now, the last and least valuable to most persons is the much written-about, long-suffering Redding Picholine. A description of this tree and its fruit is no doubt as familiar as the Mission. That it does remarkably well at this altitude cannot be gainsaid; it grows rapidly and fruits at an early age, there now being four hundred young trees on this place in fruit at five years from the cutting. It bears well every year, in fact, although better or with fuller crops every second year. The oil is light in color and possesses a delicate flavor very much liked. The yield of oil is quite equal to that of the Mission. Last year it averaged about 13 per cent, although there were many pressings that made as high as 15 per cent.

An advantage the Redding Picholine has in this climate is its early ripening, giving the grower an opportunity to get the oil made before the winter rains commence, thus saving loss by birds, storms, etc.

There seems to be an erroneous idea in regard to picking this berry. It is in reality more easily harvested than the larger kinds that have to be gathered by hand. We spread a canvas under the tree to be picked, and comb the berries onto it with short-handled rakes or combs. As yet we have found no injury to the succeeding crop by this method of picking the fruit. The leaves, dirt, etc., are fanned out by running the berries through a Fresno raisin-cleaner.

Now, my observation has taught me, among many other things, that the olive tree, like any other, will repay generous and kind treatment. It may thrive and flourish for awhile with niggardly care, but treat it with generosity, give it water, give it cultivation, give it fertilizers, and it will repay your kindness a hundredfold.

Under these conditions I do not believe the planter anticipating putting out olives can well miss success with a half dozen different varieties that can be named. I have perhaps a preference for one or two distinct kinds that I believe may be better under certain conditions than others, but all must bear in mind that locality, altitude, soil and other conditions must govern the olive, as other trees. What would do me in the foothills might make a complete failure in the valley, or near the seacoast.

It is my firm belief, however, that upon the olive, and those fruits that are grown for the purpose of drying, will depend the future of the horticultural industry of California, and if I intended to plant an orchard either in the foothills or upon the coast (notwithstanding the black scale) the olive would form a large portion of the trees planted.

I will now close this paper, feeling I have only gone over ground traveled so often be ore me by pioneers in olive and fruit-culture, and that I am therefore unable to go a single rod further in the way of giving information that has not already been given by these same pioneers. I would be happy beyond measure if I thought I could add one more mile-stone in the march toward the goal of success for my favorite of all trees, indeed the king of trees—the noble olive—a gift from God to man.

Experiments in Olive Oil Making and New Varieties.

The following was read by Edward E. Goodrich, of "El Quito," Santa Clara, at the last meeting of the Olive-Grower's Association:

In response to the request of Mr. Lelong, the Secretary of the association, I offer these few notes on the experiments and experiences of the olive season of 1891–92, at "El Quito," Santa Clara.

The Italian olive tree called "Cucca" seems to provide a satisfactory, large picking olive, which varies very little, if at all, from the large Spanish olive of trade. The variety seems very fortunate in grafting, is a large bearer, promises to be an annual, and is very hardy. The system of pruning adopted three years since seems to have improved the trees very markedly, and, assisted by the twice-stabbed ladybird, to have reduced the black scale to such a degree as to justify the belief of practical eradication, or, at least, control.

The system of pruning is that of the "goblet shape," the tree well hollowed out to admit air and light, but with the necessary careful study as to the wood required for the crops of the two following years.

The grafts of Italian olives produced sufficiently to make an experiment in oil extraction from their fruits possible on a small scale. Only the variety of olive called Correggiolo was in sufficient quantity for a separate experiment, and with these olives were mixed those of Grossajo, Infrantojo, and Razza, in about the following proportions: *i. e.*, Correggiolo, three quarters (¾); Grossajo, (¼); Infrantojo, three thirty-seconds (3-32); and Razza, one thirty-second (1-32). The result was an oil which seems so decidedly superior to that extracted from Mission oils as to justify the assertion that these olives are superior to the Mission variety as oil olives, at least at "El Quito."

As between the four varieties, the experiment is not final so far as the oil is to be considered, but careful observations at the picking and in the mill during extraction seem to prove pretty conclusively that the Correggiolo is the olive best fitted for oil at "El Quito," and probably in a large portion of the State. As an oil olive it shows less of the "fattiness" (which is the great trouble with the Mission olive oil), and less of the "*morcia*" or waste solid matter (which makes oil extraction so difficult in the case of the Mission olive), than either Grossajo or Infrantojo. This experiment is comparatively valueless as to the Razza, but observation at the picking and in the mill makes it safe to predict that it will be liable to fattiness on rich soils, and that it will be, as in its native home, a very shy bearer.

To sum up the advantages of the Correggiolo olive as an oil olive, it may be said that it seems to promise to be a larger bearer, a possible annual, that it ripens early, that it dries rapidly, that it has a very moderate quantity of "*morcia*," and that the oil separation is easily obtained and rapid, and that the oil is of an exceptional fineness. The result is so conclusive as regards "El Quito," that grafting into this variety will be continued until all trees of oil olives are Correggiolo.

In regard to oil extraction, one experiment on olives of the Mission variety is worth noting. The essentials of oil extraction are that the olives should be dried to a certain point; that is, until the "water of vegetation" is so far reduced in the berry that it will not, in the press—as it very frequently does, and will always do if not so reduced—bind the oil to itself and the solid matter which, to a certain extent, always escapes with the oil and water from the racks or cheeses; that the crushing of the berries shall be sufficient, and for this sufficiency that the pits be fully crushed, since under the pressure they help the process by, to a certain extent, holding the paste of the fruit apart and thereby allowing the escape of the oil.

Absolute cleanliness in all the machinery is an essential well-known to all olive oil extractors. The choice of time for gathering is rather large, and each grower will do well to try experiments at various points in the season. Early oil is liable to have a certain sharp taste, much admired by those to the manner born, but one which passes away in a few months, and leaves the oil as sweet as that of the later pickings.

The experiment in Mission olives was of an early picking, and the result an oil very much superior to any Mission olive oil ever made at the place before. The principle is a simple one, *i. e.*, that any olive which tends to fatness and coarseness, as does the Mission, is well picked quite early. It should be said that this early oil commands in Italy an advanced price, and perhaps, as the American public learns to distinguish between cotton-seed and olive oil, it may also demand as a "treat," in the early days of the olive season, its "*olio acerbo.*"

The experience of "El Quito" is very decidedly in favor of the old Italian system of sacks (*bruscole*) for holding the olive in the press and of drying by natural evaporation, rather than by artificial heat, which, at least, risks a cooking of the oil in the berry.

A redwood frame of one-inch by two-inch stuff, six feet by three feet in size, with six-foot laths—about eighteen or nineteen—and four cross-laths for strength, makes a convenient olive tray, and a great many can be racked up in small space, with bits of woods between the corners. At "El Quito" bricks are used, as they are at hand, which leaves four inches between trays.

Perhaps, or *certainly*—as it seems to the writer—the need of care in dealing with olive oil in its extraction comes especially as each "run" of oil is made. Nature aids the process of sending the water down and the oil up. For the best results the oil as it rises, and as soon as it rises, should be skimmed off as cream is taken from milk. Nature, however, resents tardiness, and any olivegrower who has ever tested the *morcia*, the waste stuff of his olive mill, can understand how absolutely necessary it is to remove the oil from this mass, which is so decidedly nasty and so ready to ferment. Again, as the oil taken off still contains some portion of the vegetable matter, it is necessary to continue the process of skimming. As a rule, skim off the oil four times the first day and twice the second day, and continue the process, always watching the deposit. For storage, oil needs, it need hardly be said, a cool cellar and occasional skimmings, or charges. The best storage tanks, so far as "El Quito" experience goes, seem to be those made of heavy redwood, lined with tin (as also the covers). Oil made, treated, and cared for in this manner will need no clarification for bottling, except that of passage through a fine quality of druggist's paper.

DISCUSSION ON MR. GOODRICH'S PAPER.

Mr. Kimball: I would like to ask how he has determined that there is a difference between the oil that remains on the lees and that which does not. Have your experiments been of that kind which determines the difference between that which lies on the lees for a week or a month, and that which has been removed two or three times a day, and that its taste is impaired by remaining on the lees?

Mr. Goodrich: I have had experience coming in this way: That under certain conditions of the olive, where the drying has not been much needed, and it has been necessary to leave the olives on the trees, afterwards the quality of the olives has been very inferior. An experiment between them is quite difficult. Two years ago the care of the lees was much more than in years previous, and this last year the care has been nearly double or treble, and I am perfectly satisfied that the oil of that year is very much better oil, and it is to be laid very much to that question. It is a matter of taste. If you were trying the experiment of leaving oil a certain number of hours in the tank, you would detect it by the taste.

Mr. Kimball: In your attempts, after you have skimmed off your oil, say the second time, what amount of deposition was there at the bottom of your tank?

Mr. Goodrich: It would be very slight; indeed, I am inclined to ask Senor Barzellotti to answer these questions.

Senor Barzellotti: When the oil is allowed to remain in contact with the lees, the water of vegetation is spoiled, for two reasons: first, because this water of vegetation and lees begin to ferment in a few hours, and when it is fermenting is heated, and the temperature may rise as high as 133° F., and that is enough to give a bad taste to the oil. The other reason is that this same mass of lees has a very bad taste. The oil may be spoiled in from six to eight hours. When we are making oil we must remove it from the tank immediately after the mass of olives is pressed, and for that reason we have to regulate the oils every six hours for the first two days, and for one week twice a day, until we see and are sure that the oil is perfectly free from sediment, or of any water of vegetation.

Mr. Kimball: What is the general temperature of your oil when you press, under ordinary weather conditions?

Senor Barzellotti: About 65° to 72°.

Mr. Kimball: Well, how much increase of temperature have you noticed—how much rise in the temperature have you observed when pressing?

Senor Barzellotti: Up to 135°.

Mr. Kimball: By natural fermentation?

Senor Barzellotti: Yes, by natural fermentation. The water of vegetation has a terribly bad, strong taste, and, as you know, the oil is very delicate. Take a fine oil, and you can change it by introducing a spoon. If this spoon has a bad taste the oil will take the taste.

Mr. Kimball: In the process of making oil, would you subject your olives to any artificial heat?

Senor Barzellotti: No; that would be to spoil the oil.

FRUIT MARKETING.

Results of Expediting California Fruit Trains to Eastern Markets.

At the August meeting of the State Horticultural Society Mr. Fred C. Miles, of Penryn, Placer county, was appointed to prepare a statement concerning the effect of reducing the time required to move California fruit trains to eastern points, both upon the quality of the fruit and the market for it. Mr. Miles sent the following letter of inquiry to several prominent shippers:

DEAR SIR:—The State Horticultural Society, being desirous of assisting, by sending out valuable information, in the development of the fruit interests of the State, seeks light upon the "Advantages that have resulted from the shortening of time for transit of green fruits from California to eastern markets."

As the responses received from those who ship the larger portion of the crop will form the reply to this question, will you kindly give me as full and detailed an answer as your time will permit?

I beg leave to offer a few questions—not to have a reply categorically made to them—but simply as suggestions only.

1. Average time of ventilator service from California to Chicago last season? This season?.

2. Arrivals in overripe condition or unsalable?. Last and this year? Cause?

3. Can fruit now be picked in much riper condition, as a resultant of shorter time in transit?

4. If so, affirmative to 3, its effect in enlarging the markets in the East?

5. Percentages due this season to having better fruit to offer in eastern markets?

6. Can better prices be obtained by shorter time transit and 3 when fruit products are in excess in the East?

7. Has shorter time in transit and 3 any bearing on European shipments and prices obtained?
8. Effects of shorter time and 3 on production of fruit in California?
9. Effects of shorter time and 3 in increasing value of orchard lands, etc.

To the above inquiries Mr. Miles received the following responses which he submitted at the September meeting of the State Society.

FROM THE EARL FRUIT COMPANY.

SACRAMENTO, CAL., Sept. 16, 1892.

Fred C. Miles, Esq., Penryn, Cal. DEAR SIR:—In reply to yours of the 14th instant, we will say briefly that the shortening of the time on fruit shipments to eastern markets has resulted in great benefit to the industry, as it enables the growers and shippers to get their fruit through to destination in better condition than was possible when shipments were longer in transit. The shortening of the time, however, has not resulted in any great benefit, as regards shipments in ventilated cars, as experience has demonstrated that shipments of fruit in ventilated cars, with the exception of a few varieties from certain districts, cannot be got through to eastern markets in good order, even by passenger train, therefore the greater portion of fruit shipments from California are now going in refrigerator cars. The shortening of the Overland trip has resulted in great good, as fruit in refrigerator cars will realize much better prices if got to eastern markets in faster time, and furthermore, the fruit can be shipped in much riper condition in refrigerator cars, thus insuring a better quality for the eastern consumer, and better prices in consequence; also a larger quantity of fruit for the producer, as fruit fully grown is larger and more weighty than immature fruit. Fruit can be shipped much riper if shipments are made in refrigerator cars than in ventilated cars, and can be shipped much riper if shipped in refrigerator cars making fast time, than when they made slow time, as in previous years. Of course the shorter the time in transit and the more mature the fruit is before it is picked, the better prices it will bring in eastern markets, and the shorter the Overland trip the more possible it will be to market fresh California fruits in the English markets. The shortening of the Overland trip will enable us to put California fruit in many of the smaller eastern markets, which could not be reached quick enough before. We refer to points off of the main line, such as Cincinnati, Montreal, etc. All of the above clearly proves that the improving of the Overland service will increase the value of orchards and vineyards to a great extent, and will encourage greater planting. One mistake the railroad people have made during the last three years is not encouraging the use of more refrigerator cars; in fact the Southern Pacific has discouraged the use of these cars in every way possible. Notwithstanding this, they are growing in favor, and have been the means of adding very much to the development of the green fruit-shipping industry. Yours very truly, EARL FRUIT CO.

FROM COOPERATIVE FRUIT COMPANY OF NEWCASTLE.

NEWCASTLE, CAL., Sept. 29, 1892.

Mr Fred C. Miles, S. F.—DEAR SIR:—Concerning the information desired regarding the development of the fruit interests of the State, would say that my time has been so completely occupied that I have been unable to give the matter any attention whatever. Since you so particularly request a line from me, however, I will offer the best I have under the circumstances.

In regard to the service from here to Chicago, I think nine days would be a fair average for last year, while for this season about six days has been the average time. This shortening of the time in transit has been of great advantage to the shipper for many reasons. In the first place, the fruit has arrived in such condition that it has enabled the purchasers to reship to their own trade in the States, thus warranting their paying more for the fruit than if compelled to use locally. It has also given the grower a chance to allow his fruit to mature and color up before picking, which of course enhances its value. Another reason why quick service has been advantageous is the fact of the shipper being in a position to calculate the time of arrival, enabling him to land cars in the different markets on the best shipping date. Every market has its poor days for the sale of fruit, which, if avoided, makes considerable difference in the result—for instance, Fridays and Saturdays are very bad days for the sale of fruit in some markets, while in others these same days are the best—and if in shipping we can depend on schedule time, we can calculate our shipments to arrive on the proper dates. There is still another good thing in favor of shorter time, viz., if a car should arrive on a day when the market is glutted, if the fruit is in good, sound condition in consequence of quick service, the consignee can hold same until next day, but if, on the other hand, this car has been dawdling along on its way, and the fruit is overripe and in bad condition, an immediate sale is necessary, no matter how poor the market.

Our experience this season, as to condition of fruit on arrival at destination, has been very satisfactory; in fact, we do not now remember of even one car having arrived in what might be called "bad order." Last season we experienced several complaints, and think it can safely be attributed to slow service. We do not believe that a large crop in the East would materially affect the sale of California fruits, provided our fruits are what they should be. The reason of poor sales is more because of carelessness in packing, etc., than of an excessive eastern crop. Our peaches will bring good prices at all times if in proper condition, no matter what the eastern crop may be.

The improvement in the service this season has certainly opened up new markets for our products, as, for instance, the matter of shipments to Europe, which with the old service couldn't be considered. We can land fruit in London this year in exactly the same time consumed on shipments to New York in other years, and every car of fruit forwarded to Europe deprives some American market of that much, thus leaving room for other shipments here. We think that any improvement in shipping facilities, whether by shortening the time or in lowering rates, will make itself felt in Placer county. It will most certainly encourage newcomers to invest in fruit lands, and it will doubtless make a considerable increase in the value of lands.

Sincerely regretting my inability to send you something more to the purpose than I feel this will be, I am very truly yours, F. J. MASON, Manager.

Our Fruits in England.

The whole object of marketing California fruits in Great Britain is of such great interest to our producers that we quote in full the accounts, written wholly from a British point of view by A. Taylor & Son of Liverpool, to the N. Y. *Fruit Trade Journal.*

On Friday the 12th of August, 1892, the second consignment of fresh fruit from California was offered in the salesroom of Jas. Adam, Son & Co., to a fairly crowded market. The various samples of pears, peaches and plums were in prime condition, and the demand at the prices named, was good, but the dealers were very careful not to enter keen competition by outbidding each other, but purchased with caution, especially so far as the pears were concerned, as the French crop is a formidable rival, seeing the carriage is high by comparison. The demand was, all circumstances considered, very good, and the prices fair, ranging from 9s to 12s 9d per box of 40 lbs. The peaches and plums sold readily, the peaches at from 8s to 9s 9d per box of 20 lbs. and the plums at 9s to 10s per box of the same weight. The vendors not being able to realize satisfactory prices for the whole parcel, the balance unsold were sent to the London market, where they are in higher favor and realize better prices. We bought some lots of pears for our local trade at 11s per box, containing net 40 lbs. of very fine pears, but next day we found very few buyers at 12s to 12s 6d. The fruit has to compete with the French William pear, which they much resemble. We are selling the French pears at 5s per box containing 45 good pears, but this French rival to California fruit will not be of long duration, for the French pear crop is short, and in any case, would soon be over when we know of nothing coming forward to compete with yours till next season. The pears so far appear to be the only fruit that can compete with our home or Continental fruit in the lusciousness of its taste. The plums peaches, nectarines, etc., in some instances are as fine or finer in their appearance, but when you come to the tasting or eating (and that is what they are for) there is absolutely no comparison, the English being so superior. All the same we think that if you can send us these fruits when our home and continental supply is scarcer, there is a great and profitable future before the exporters. It appears that the fruit should not be nearly ripe when gathered for export for the fruit that was ready to use when landed very soon showed signs of decay upon being exposed to the air, the change being, we presume, so great from the refrigerators, in 24 hours you would not think it was the same fruit, this too the experience of our country buyers, but we would like to see more of it before before giving a decided opinion.

At our saleroom on the 3d inst. we have to report a decided improvement in the demand and price of Bartlett pears. Those ex-Britannnica sold August 26.h, we paid 14s 6d per case for, as against 11s for similar pears brought on the 12th inst. The buyers were very keen on the Bartletts which met a ready sale at 14s 6d. The Beurre Hardy pears we ran up to 12s, at which price they were withdrawn. As we were the highest bidder the vendor privately gave us the option of taking them at about 13s 6d. They were sent to London and realized next day 15s 6d per case. We sold the Bartletts we bought, at our store at 15s 6d per case, being afraid to hold them owing to their very perishable nature, but found this lot kept firm longer than we had anticipated, not being overripe, until the Wednesday following the sale, when we had quite sold out. We took a dozen boxes from a friend who had not been so fortunate in selling; he on Wednesday declared them in perfect condition, but on Tuesday we found nearly one-half of them worthless which shows what a pity it is that the fruit is not shipped so that it could be sold on the Monday or Wednesday's sale, thus giving us all the market days of the week for its disposal without Sunday intervening. Sept. 3d sales showed a still more decided improvement, although the samples were somewhat riper than last week's. Hatch's extra fancy selected Bartlett pears meeting a ready sale at 17s per case containing about 40 lbs., the next grade brought 15s to 15s 3d, whilst the Beurres were indeed more hardy, brought 13s 9d and 14s. To-night our unsold Beurres are in our ordinary store whilst our Bartletts are placed in our cool cellar to try and save them over Sunday. The rival to the Bartlett, the French Wm. has now entirely disappeared from our markets; any others in competition are not worth mentioning, so that from this week forward only land them in proper condition and success is certain and assured, but to make assurance doubly sure, you must pack the pears in boxes strong enough to do without what we call the bilge on the top, and in many instances on the bottom. We consider it a downright piece of vandalism to pack this beautiful fruit in such a fashion that when the top of the case is taken off, the fruit layer is bruised and many others crushed and disfigured. We simply frightened many of our customers away when we took off the top and asked from 12s to 15s per box for the damaged and discolored fruit we exposed to view. Grown wiser we now open the side, but we don't feel comfortable while we are selling, for we know the evil is there all the same and we don't like it. The wood in the boxes is altogether too light to carry with safety 40 lbs. of pears; it is only strong enough for a 20 lb. package. If some 20lb. boxes were sent, they would not only arrive in a better condition, but they would meet with a brisker demand in our saleroom and a readier sale in our stores, for there are scores of storekeepers who would gladly give more in proportion for a 20 lb. box whose business would not allow them to buy the present larger parcels. As we foreshadowed in our last report, the California peaches, plums, etc., are at present nowhere in comparison or in competition to our beautiful luscious English fruits, but unfortunately these will not now last long. Their season being over, we will have nothing to offer in competition to your production until our lethargic and long benighted countrymen awake to a full patriotic sense of their responsibilities and of the capabilities of our Island, which according to Mr. Gladstone, properly cultivated will produce the finest fruits in the world.

Sept. 7, 1892. The pears sold on the 2d inst., and which brought such fancy prices in Liverpool, did not average so much in London by about 3s 6d per case, compared with Liverpool. The pears of this shipment being the ripest and consequently the worst keeping yet landed, the deterioration was so rapid, that, on the Monday following the sale, the merchants were glad to sell the fruit at from 10s to 14s per box, for which they had paid 17s, while the 15s Bartletts were disposed of from 9s to 14s. Many of the retail buyers would not have a second lot, but were constantly asking for and obtaining allowances for the wasty condition of the fruit they had bought. But the Beurre Hardy and Beurre Fancy, after being eight days in our store, are now in grand condition, some ready for the table now, others promise to keep good for several days to come. To-day we, with several of our best customers, tasted a few ripe samples of the Beurres, and they one and all pronounced them equal to the best specimens of the Bartletts.

Sept. 10. Yesterday was shown at our saleroom the finest and best conditioned California pears ever seen in this country, but the deceptive state of the previous shipment had made the buyers very cautious and slow, the first lot of Hatch's selected 40 lb Bartletts being sold under the hammer at 13s 9d; several other lots, 13s 6d, 13s 3d, and finally 13s. The broker withdrew the balance upon the offer of 12s 9d and sent them to London. In addition to Bartletts at 13s 3d, we bought the Beurre Hardys at 16s 6d, and the Souvenir de Congress at 11s 3d per box. The offering of the peaches and plums and their whole appearance was a mere farce in the face of the splendid English samples now in our market. A. TAYLOR & SON.

THE DAIRY.

Prof. Hilgard Observes Alpine Dairying.

RIGI SCHEIDEGG, SWITZERLAND, Sept. 12, 1892.

TO THE EDITOR:—It may interest your readers to hear something about summering in the Alps, by way of comparison with a corresponding season in the Sierra Nevada, say Lake Tahoe or Donner Lake. I am now near the end of the fifth week of my stay at this elevated resort—one of the many that now dot the Rigi (pronounce *Ree ghee*), which is not properly one mountain, but a rather abrupt horseshoe-shaped ridge whose highest point, the "Kulm," rises to about 6000 feet. *This* point, the Scheidegg, is about 1000 feet lower, but has the advantage of being not a mere summit but a flat-topped ridge, on which there are pleasant promenades and walks on grassy slopes, from which you have magnificent and indefinitely varied views. To southward is the main chain of the Alps, with snow-covered summits from 9000 to 14,000 feet above the sea; immediately below, on the south and east, are three lakes—the classic one of the "Four Cantons," that of Lowerz and that of Zug (*Zoog*), with their deep blue water and constant traffic of passenger steamers, which from this height look like nutshells. Four weeks ago, after several days of warm "Fohn" (the "Souther," which here stands in place of our hot northers), there lay between the snow-capped summits and the green pastures of the foothills a broad band of blackish or reddish-gray rock, varied only by the bluish glaciers that hang down even to the valley borders and are marked with dark lines that at this distance impress you as being muddy wagon-ruts, but are really ridges of stone blocks—debris that rolled down upon the ice-sheet as it moved through the canyons and accumulate at its end as moraine ridges. The Rigi itself, and the slopes across the lakes, were beautifully green with a dense grass turf gay with bright-colored flowers, among which the bluebells, the gentians, both blue, red and yellow, the arnica, the scabious and a multitude of dandelion-like flowers were conspicuous.

All that has been changed in a few days, when rain set in that at this altitude soon changed into snow. For a week this summit has been wrapped in a dense cloud, except for an hour or two, occasionally, when rifts showed the mountains to be mantled in white clear down to the green pastures; to-day, the sun shines once more, but for a thousand feet below us the meadows are white, and flowers and grass are borne down by the load of snow, while lower down the slope the cows pasture as usual among the chalets that are promiscuously scattered on the mountain sides. Up here, for a day or so, the cows scraped a fair living from under the snow; then they were kept in the stable and fed with green provender that had been cut on the steep slopes on which a well-conditioned and prudent cow would not risk herself. To-day, they are being fed with hay cut from the same kind of risky ground, that has been put up in very diminutive stacks, each provided with a centre-pole, at the beginning of the haying season. To-morrow, if the sunshine continues, the snow may all be gone and the cows will again sally forth to their pastures which will (so says mine host) be little the worse for their chilly experience. The flowers also will again raise their heads and try to mature their seed, as though nothing had happened.

I should mention that this locality has the distinction of being a Swiss Federal Experiment Station, probably the highest now occupied anywhere, its chief object being the testing of forage and pasture plants, and of hardy, forest trees. Of both, quite a variety is under trial; among the latter a few California species, but not, probably, of the best selection. The proprietor of the hotel, Dr. F. Stierlin-Hauser (who stands high in the councils of agriculture in Switzerland, and in winter lectures at the agricultural school at Lucerne), is the superintendent and takes great

interest in this work; his specialy is dairying, and he makes the best of the high and broken ground that constitutes his domain, which, so far as it is practicable for cattle, is used for hay and pasture, alternately, each season. His experiments have shown already that timothy can be grown successfully at this altitude, and a good crop of oats is now being cut for green feed. Even a crop of potatoes, just in bloom, has been buried in the snow, but is also expected to recuperate, since the temperature has at no time fallen below the freezing point.

It must be understood that, in respect to rainfall, the alpine region of Europe differs radically from our Sierra and Coast ranges. Summer rains are frequent and abundant, and the pleasing contrast between green, flowery, succulent meadows and snowfields, that lends such a special charm to the mountain scenery of Switzerland and Tyrol, is due to this abundance of atmospheric moisture, supplemented by innumerable brooks, streamlets, and torrents that have their origin in the snowfields and glaciers. From this arises the fact, surprising at first blush, that the alpine vegetation is largely of a swamp character, and that sedges mingle very commonly with the sweet grasses. Nay, even the pest moss occupies not inconsiderable patches on this very plateau, mingled with heather and whortleberry, as in the Scotch highlands. You are sorely tempted to take a seat on the cushiony hillocks thus formed in the turf, but unless there has been a previous week of dry weather you are apt to find yourself admonished to rise hastily by a decidedly wet and cold sensation. But the slow decay of the grass-roots in the cool climate makes the turf itself so delightfully springy and cushiony that it is pure pleasure to walk and sprawl upon it on a sunny day. These turfy meadows are what is properly called "Matten" (mats), while a property composed of such pastures is an "alp," a term that, it will be noted, should not properly apply to the high, rocky and snowy ranges at all.

The *grasses*, properly so-called, do not differ widely from those that would be found in corresponding localities on the higher western slopes of the Cascade range in Washington; the bulk is formed by relatives of the June-grass, one of which has the curious habit of bearing on its stem small plantlets instead of flowers and seeds, these, falling on the moist ground, at once take root. Aside from the grasses, however, numerous other plants are of necessity cut in hay-making, and among these there is quite a number that are considered of at least equal value with the grasses for dairy purposes. In fact, a pure grass hay is not considered nearly as good, especially for high-class cheese, as the natural mixed growth of the alps which, however, also contains commonly a number of weeds, such as dock, plantain and others. In fact, the special excellence of the flavor of the cheese of certain localities is directly attributed to the herbage admixed to the grasses, whether in pasture or hay. Among these, the ladies' mantle (*Alchemilla*) is especially noted as increasing the fat-content, or butter yield, of milk, and is eagerly cropped by cows. It can hardly be doubtful that corresponding differences occur with us, and that the question of mixed growth for dairy pastures and dairy hay deserves more attention than has heretofore been bestowed upon it in the United States. To an American, an alpine hay and haying is a curiosity in several respects. The low growth acquired by the alpine grasses, at best, compels very close cutting, almost shaving, of the turf. The hay consequently consists chiefly of grass *leaves*, mostly very fine and slender, with but few stems; its average length does not exceed six inches and it has a delicious vanilla (new-mown-hay) odor. No wonder the cows do almost as well upon it as upon the green pasture itself.

But how can people afford to make such hay? Only, of course, under the condition of extremely low-priced labor; those performing such work receiving from 25 to 36 cents a day, with board and lodging.

With the temptation of this magnificent compensation before them, you see them climbing about on the steep, grassy slopes handling a primitive looking scythe which, however, is kept as sharp as a razor, since otherwise it would not cut the thin, flexible grass leaves. To swing this implement effectively and not lose one's balance on slopes too steep for grazing, that many a man would decline to climb when remembering that a slip of the foot may mean a tumble of say five hundred to a thousand feet, is a feat not learned in a day; its mere contemplation makes nervous people feel giddy. In fair haying weather, not too windy, the cut grass is left on the ground, on which it was mown, to dry; but often it is raked off green to a lower level where it is spread to dry in a sheltered place. There it may be put up in diminutive stacks; but the material, green or dry, is commonly got together by making it up into loads of 150 to 180 pounds, placed on coarse nets pinned into the ground at their edges. These are then drawn together and so form a manageable bundle, which is carried on manback wherever wanted. A person curious to know how such bundles are handled by the men on steep slopes may witness something like this: The bundle is laid flat against the slope at some point where a good footing may be had a few feet below; then the man *leans backward against it* and grasps it with both hands; then by the use of abdominal muscles that an athlete might envy, he raises himself to an erect position, gets his balance and then, slowly, step by step, ascends the slope above him with his load. Dr Stierlin has reduced this laborious mode of carriage to a minimum by stretching a wire cable from the summit down to his most productive hay-grounds, from which the bundles come up by means of a running pulley carrier.

The cows, whose substance is thus laboriously provided for, are all, of course, of the grayish-brown or dun-colored alpine breed; a well-proportioned, sturdy, hardy race, very gentle and intelligent; the large ears conspicuously white-hairy within, forming the most striking portion of the animal when it is looking at you. Their milking qualities are not extraordinary; the average of 40 cows during the summer campaigns of several years on Dr. Stierlin's pastures here has been about 9½ liters per day, or between 2¼ and 2½ gallons; total solids, 12½ to 14 per cent; fat, 3½ to 4 per cent. The milk is therefore rich; it has not quite the neutral taste of our grass-fed milk, but a slight special flavor, doubtless due to the mixed herbage from which it is derived. A centrifuge driven by hand does the creaming; the butter, rather light-colored for grass-fed, is delicious and high-flavored—regular "gilt-edge." It is the more important as, with honey, rolls, milk and coffee, it forms the regular European breakfast, of which eggs, steak and chops form no part unless specially ordered. The skim milk, so far as it is not consumed by the calves (out of a square, queensware pot with rubber teat) is correctly made into cheese, which forms a staple article of home diet. In fact, in the chalets, the "meagre" cheese quite commonly stands in lieu of bread, while the rich, made of whole milk and aged somewhat, serves as the condiment. From former experience, I cannot say I admire this diet; but the "Seuven" seem to thrive upon it. I am told that a good many of these alpine "cowboys" have emigrated from this neighborhood to the Pacific coast. If so, they have doubtless by this time changed their ideas, both as to diet and compensation.

E. W. HILGARD.

THE STOCK YARD.

Sheep and Pigs at State Fair.

[From our own Correspondent.]

During the many years that we have attended the California State Fair we do not remember having seen the pens so well filled with sheep and pigs as they were this year.

Undoubtedly, owners of sheep have every encouragement to bring forward representatives of their respective flocks owing to the high prices they have been realizing, not only on pure-bred rams of the various breeds, but for cross-breeds and high grades, while consumers of mutton also experience something in regard to the higher prices paid now than in times past, even admitting that there has been considerable improvement in quality.

It is this high-priced mutton that has induced many owners of sheep to make some change in the class of sheep bred by giving more attention to the production of mutton than was formerly given; meanwhile, not forgetting the pecuniary benefits of a good fleece.

The breed that has been most drawn upon for a cross to bring about this combination is the Shropshire, of which very large importations have been made from England to the United States within the last few years.

Has the thing been overdone, or is it about to be overdone, as has been the case with so many other classes of live stock, in which high prices have proved a strong temptation for those importers who are not breeders to reject the selection of inferior animals for importation?

An English correspondent of the *Country Gentleman* writes:

"Most unsatisfactory prices are made at the sales and lettings of pedigree sheep, which always come off at this season. Perhaps the chief depreciation is among the Cotswolds, but Oxfordshires and Shropshires share the fall to a great extent. Like most matters, the thing has been overdone; but there may also be one or two other causes at work, chief among which is the unsatisfactory price for ordinary flocks at present."

Whether this should be taken by flock-masters as a "note of warning," or as a mere temporary setback in prices, time alone will tell, but in a later English exchange, we have very discouraging reports of the sales of some imported fine wool sheep in Australia, which entailed great loss on the importers, while the average price of Merino rams sold at the Sydney ram sales in 1892 is much below the average of the last ten years.

Of Shopshire sheep at the State Fair there were only two exhibitors, Messrs. J. H. Glide and T. B. Hall, both of Sacramento.

McGlide had also a number of French Merinos, which, with his Shropshires, were about two thirds of the whole number of sheep on the ground.

Excepting with the last-named breed, there was no competition whatever in the sheep classes. Geo. Bement & Son had a few Southdowns, Mr. F. Bullard had a goodly number of his Spanish Merinos, and Mr. Glide had the French Merino classes all to himself, just as Mr. C. P. Bailey had with his recently imported Persian or fat-tailed sheep.

These formed a novel sight, and we presume there were few, if any, people present who had ever seen sheep of that kind before. They had not recovered from the depleting effects of the long journey they had had by sea and land, consequently looked thin of carcass and long on the leg.

The tail really seemed to be the most valuable part of the carcass. It looked and felt as if it might be from 20 to 30 pounds weight on some of the animals and will probably grow to heavier weights when well fattened, as, judging by the general appearance and form of the animals, the greatest part of the fat goes into the tail. The wool is of a very heavy nature and will bear being improved upon to an unlimited extent.

Mr. Bailey also had a number of his Angora goats on exhibition, with Mr. Isaac Lee of Florin for a competitor.

SWINE.

Geo. Bement & Son exhibited some good specimens of the Essex breed; and Mrs. M. L. Eccles of Los Angeles some small Yorkshire whites, to which special premiums were awarded, there being no provision made for pigs of that breed in the regular premium list.

In the Poland China classes there were only two competitors, P. H. Murphy of Brighton and J. Melvin of Davisville. Both showed some good pigs, among which the premiums were pretty evenly divided. It was in the Berkshire classes that there was the strongest competition, there being six exhibitors, three of them residents of Sacramento county and one each from Los Angeles, Santa Clara and Marin counties. Both Mr. Alfred Seale of Mayfield and J. E. Lucas of San Rafael exhibited stock recently bought from the estate of the late Andrew Smith of Redwood city. They were about equally successful in getting prizes, taking three of the four sweepstakes premiums offered; L. Waite of Perkins taking that for best boar.

Sessions & Co. of Los Angeles, made a good exhibit and took fully as many premiums as any other exhibitor of Berkshires.

Thus ends one of the most successful fairs ever held in the State, especially for horses, sheep and swine.

LIVE STOCK AT THE WORLD'S FAIR.

The next great attraction, after the Christmas fat stock shows will be the world's fair in 1893, entries for which in the cattle and horse department will close June 15th; for sheep and swine, July 1st; dogs, May 20th; poultry and pet stock July 15th; and fat stock August 1st, 1893.

There are some liberal extra purses hung out for exhibitors of cattle; for Short-horns, $6,000 in added prizes and Herefords, $5 500, besides extras from other breeders associations of all kinds of live stock, bringing the added amount up to $50 000, which, added to the $150,000 appropriated by the exposition company for live stock makes a very attractive premium list, divided as follows: Cattle, $34,045; horses, $59,850; sheep, $16,512; swine, $22,285; dogs, $3,920 poultry and pet stock, $9 265.

The live stock exhibition will open with a dog show on June 12th, and Chief Buchanan has received assurances that it will be the greatest kennel exhibit ever held.

NO PLEURO PNEUMONIA.—Secretary Rusk issued on September 26th, his proclamation that the United States is now free from pleuro-pneumonia. The official proclamation has been delayed until six full months from the occurrence of the last case, on which occasion the animal found diseased, as well as all others with which it had been in contact, were at once purchased and slaughtered, the premises being quarantined to all cattle from that date to the present time. Although in many cases four months is regarded as sufficient, this extension of the period of complete immunity from four to six months was adopted so as to satisfy the most conservative and apprehensive that the grounds for the present proclamation were ample and its issue and the raising of quarantine in the United States for this disease thoroughly justified by the facts. The inspection system adopted by the Department has been maintained in full force and efficiency in those districts heretofore infected during that period. The seaboard and frontier inspection and all necessary cattle quarantine will be strictly enforced and there being no possibility of the occurrence of contagious pleuro-pneumonia save by its introduction from foreign countries, the country may congratulate itself upon the removal of all apprehension for its cattle interests on the score of contagious pleuro-pneumonia.

History of October Weather.

Lieutenant John P. Finley in charge of the weather office in this city has issued the following:

The month of October may exhibit all of the variations in precipitation which characterize the "dry" and "wet" seasons, from the entire absence of rain to more than seven times the normal amount of about one inch. During the past 41 years no rain has fallen in October in 1850, 1855, 1861, 1863, 1866, 1870 and only a trace, or an amount too small to measure, in 1887. The heaviest falls of rain occurred as follows: 1849, 3 14 inches; 1854, 2 41; 1853, 2 74; 1874, 2.69; 1876, 3 36; 1882, 2 66; 1884, 2.55; 1889, 7.28 inches. The records do not justify the establishment of any periodicity in rainfall during October which would permit of a long-range forecast as to years of heavy and light precipitation, except to say that the former do not follow each other without an interval of at least one year, and usually about four, but may reach a period of ten years. The probability of rainy days is more than twice as great as in September, but the average cloudiness is slightly less than during that month owing to a diminution in the prevalence of fog and the occurrence of more southerly winds.

The maximum temperature has ranged from 72 degrees in 1881 to 87 degrees in 1887, 1888 and 1889. The average at about 79 degrees shows a decrease of 3 degrees from September.

The minimum temperature, or that which occurs between midnight and morning, has ranged from 45 degrees in 1881 to 52 degrees in 1876 and 1885, the average being slightly lower than in September.

GRAPES AT THE UNIVERSITY STATION.—Foreman R. D. Cruickshank of the University of California Agricultural Experiment Station, brought to the county fair a most remarkable collection of grapes and cereals from the Paso Robles station. The collection comprises 77 varieties of grapes, the major portion of which are imported, including those of the following types: Bordeaux, Burgundy, southern French red, southern French white, Sauterne Rhenish red, Sauterne Rhenish white, Hungarian, Austrian, Tyrolean, north Italian, port, sherry, madera, table and raisin white, table black and red. The grapes are all plainly labeled and the opportunity should not be lost of carefully inspecting this wonderful collection, as it affords intending planters a chance of selecting the best varieties. Mr. Cruickshank kindly pointed out to us a grape called the Muscatello fino, and having tasted it and pronounced it the finest we ever tasted, he for comparison let us try an excellent common variety known as the California Malvoisie. It did not taste like a grape at all after the Muscatello fino. Most of the varieties shown are of wine-making qualities and it is amusing to witness the interest taken by the Germans and Swiss, who recognize such names as the Affenthaller, Gewartz, Franirer, etc. The grain and grass occupies nearly one side of the west-wing of the pavilion and is not only a masterpiece in husbandry, but the shape in which it is displayed is highly creditable to Mr. Cruickshank's artistic skill. It must be remembered that these samples are grown without irrigation, and this is an off season.—San Louis Obispo Tribune.

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passage by the Legislative Committee of the National Grange have, in most instances, failed to become laws. The reason for this is apparent to any observant person. It will ever be so, I fear, as long as farmers choose some one not of their own or a kindred calling to represent them. Let blacksmiths and carpenters, let bricklayers and miners, let bootmakers and tailors, let farmers and their employes, in short, let all those who in the sweat of their brows eat bread, unite with the one common purpose of the greatest good to the greatest number, and there will be more of healthy legislation and less of unhealthy legislators.

Now, I do not want to be understood as saying, or as thinking, that all of our present laws or lawmakers are bad. Not so at all. On the contrary, many of our laws are good, and many of our lawmakers are pure and honest men. The trouble is, that too many of our laws are made in the interests of private individuals and corporations, and too many of our lawmakers are the paid attorneys and employes of such corporations.

There are few people who would think of sending a farm laborer to the legislature, no matter how good a man he is or how fully competent to do the work expected of him. And yet these same farmers and artisans will very readily turn to, and help elect a man who has no other employment or qualification than that of a paid employe of a corporation. Nor does this fact hurt the man in any way, *provided* he is competent, honest and worthy. But, in the first instance, it is used to keep down worthy and efficient men, while, in the second instance, it too often is used to boost and advance unworthy and incompetent men. Let us, as a thoughtful and conservative element in the county and State in which we live, use our knowledge, our influence and our votes, at all times, in the direction of good government, rather than in the direction of a party victory.

NATIONAL GRANGE.

It is unnecessary for me to report to you, in detail, what was done at the last session of the National Grange. That work was done almost a year ago, and each of you has, no doubt, read the Journal of Proceedings. Suffice it to say that much important work for the upbuilding of the Order was done. Headquarters for members of the Order who visit the World's Fair in Chicago, in 1893, were ordered, and the Executive Committee of the National Grange were directed to provide for lectures, bureaus of information, cereal exhibits, and such other details as will make the world know there is an American agriculture and an American agriculturist. Full particulars of what has been done by the Executive Committee of the National Grange, and what the membership who visit Chicago may expect, will be made at the next session of the National Grange, soon to convene at Concord, New Hampshire.

I must not allow this opportunity to pass without saying a word to you about the importance of the Columbian Exhibition. It is going to be the grandest exhibit ever made by a civilized nation. As a means of education, of establishing international friendships, and of gaining, in a short time, for a nominal expense, the best insight into the progress of our time, there is no estimate too high to be placed upon this fair. By all means, I want to urge every farmer in California to so husband his resources that, with his entire family (for the youngest as well as the eldest will derive benefit), he may attend the World's Columbian Exhibition. Don't sacrifice health, don't defraud an honest creditor, but at almost any other sacrifice, take the family to Chicago in 1893. And, in this connection, it affords me pleasure to say that one of the members of our Order—one of the members of this body—Bro. H. M. La Rue, Past Master of Sacramento Grange, has been honored with the position of superintendent of the viticultural display of this great exposition. We can, therefore, all of us feel at home when we attend the fair. Let us, as a body, lend our brother a helping hand, and give that word of cheer which will make his duties pleasant and his labors the more successful.

WOMAN'S WORK.

In accordance with resolutions of this body, a Committee on Woman's Work has been appointed. The work of that committee is among the most important of any to be done by the Grange; for the influence of the mother, of the wife, of the sister and of the sweetheart is coexistent with the thoughts, actions, power and prosperity of man. The power of woman, and it is nearly always a power in the right direction, is unmeasurable. By a sign, by a word, yes, and very often merely by her presence, a man has been saved from utter ruin, by the woman who loved and advised him, or whom he loved and respected. There is no wonder the Grange has been a success. The mere fact that women are at every meeting is a perfect guarantee of the success of the Grange. Woman's work is coexistent with the prosperity and perpetuity of the Grange. Let her be fully awake to the responsibility that is hers, and fully competent to discharge the duties which now and hereafter will devolve upon her.

GRANGE CANVASS.

Early in the spring of 1892, the Executive Committee of California State Grange determined on a thorough campaign of the State. To bring this about in the most economic and useful way, the entire State was divided into districts, and two or more speakers were detailed for each meeting. In all but two cases, the speakers charged nothing for their services; but the committee insisted on paying all necessary expenses of speakers when same were presented in the form of an itemized bill.

The good results of these meetings are well known to each of you. I would suggest that this or some other form of field-work be continued. The expense of such work, when done as it was this year, is purely nominal, while the benefits are full and far-reaching. For the expense of this work, you are respectfully referred to the reports of the Secretary, Treasurer and Executive Committee. Nor can I leave this subject without returning my own thanks, as well as those of the Order, to all of the speakers who did such valiant service in this cause. Their efforts were timely and redounded to the good of the Order as well as to their individual honor.

FINANCES.

The funds of this body are in a healthy condition; not a dollar has been expended for any purpose, unless those in charge of the funds, expected to get, 100 cents in return for the Order they represent. In this connection I can not too highly commend the honesty, capacity and watchfulness of the members of the Executive Committee. They have been, individually and collectively, attentive to all duties and have most worthily won the honor of "well done, good and faithful servants." In all matters pertaining to the Grange, they have been unselfish, persevering, progressive and true. The term of Brother Thomas McConnell expires by limitation. Select his successor with care, and be sure you get as good and worthy a man for the place.

TRADE CARD.

Our arrangements with dealers, whereby they are to furnish goods to members of our Order at reduced prices, have proved in the main satisfactory to all concerned. Owing to the geographic conditions, some of our Granges have not been able to derive as much benefit from the Trade Card plan, as others have done.

For further particulars on this subject you are referred to the report of the Special Committee on "Trade Card plan of Trading."

OFFICIAL ORGAN.

Early last spring the Executive committee were officially notified by Mr. Alfred Holman—manager of the Dewey Publishing Company, who are the owners and proprietors of the PACIFIC RURAL PRESS—that that paper would cease to become the official organ of the State Grange, unless the Executive Committee should pay a monthly subsidy or bonus, for the work then being done by the RURAL PRESS in behalf of the Grange. A meeting of the Committee was held. The subject was fully discussed and the Committee were unanimous in their conclusion. But that no mistake should be made by the Committee, whereby the Order would be injured, they adjourned to a future date, and sent invitations to all the Past Masters and others of the State Grange, to meet with them in a friendly discussion of the situation. At the appointed time there was a full attendance of those who have the interests of the Order at heart. It was the unanimous voice of all, that the Grange should not comply with the requirements of the Dewey Publishing Company. Therefore, all relations existing between the PACIFIC RURAL PRESS as the official organ, and the State Grange of California, were, with a mutual and friendly understanding, severed. Shortly after, arrangements were made with Brother H. A. Brainard of San Jose Grange, editor and proprietor of *Pacific Tree and Vine*, and Brother Samuel E. Watson of Two Rock Grange, editor and manager of *Orchard and Farm*, whereby these two papers—one published on the first of each month, the other on the fifteenth of each month—were made the official organs. This arrangement gave a semi-monthly official organ, without any expense to the State Grange. The terms and conditions of subscription, to members of the Order, have been made known to each of you through your own Grange. This arrangement holds good till this meeting of the State Grange. The entire subject is therefore referred to you, with a hope that you will give it that careful consideration it deserves. This body *must* take some action at this session if they want an official organ. And I must not neglect to say, that there is no means more potent for the dissemination of useful information, there is no power so useful to the farmer as the power of the pen and printing press. We *must have* an official organ. It ought to be published at least *once a week*. Do what seems to you best in the matter, knowing that whatever your decision is, the Master will use his best efforts to make that action a success. Act, act not hastily but wisely. More depends than you may imagine.

COUNTY DEPUTIES,

have been appointed in conformity with the laws of the Order. These officers have many duties to perform. As they have no pay allowed by law for such service, I find they do not take the interest in the work of the Order they should take. I hope this body will take some action looking to the work of County Deputies, and preparing the way whereby the Order may be built up in sections where it is not to be found. The County Deputy is an important factor in the work of rebuilding and upbuilding the Order. Give this subject your careful consideration.

FREE RURAL DELIVERY OF MAIL.

This Order, through its National Grange is, and has been, urging Congress to give a free delivery of mail to those whose homes are on the farm. We believe the Government can afford to do this. Post Master General Wanamaker says the delivery will be almost quite or self-supporting. But, whether or not that be true, we are now helping to pay for four or six deliveries per day, to our city cousins in Chicago, Boston, New York, Portland, San Francisco, and hundreds of other cities. Why not let them help pay for a weekly, semiweekly, or daily delivery to us? The justice of the case seems too plain to require any argument. If this body feels as I feel, they will take such action as will make our Members of Congress know we want "Free Rural Mail Delivery."

EDUCATION.

Don't let any one influence you to believe that this part of the work of our Order is accomplished. We may now have better roads, and better schools, and better halls and better Granges, with larger libraries and more readers, than heretofore, but still the work of education is not done. Let it go on till there are none in our fair land who want to do their neighbor a wrong, till ignorance has been throttled, till lawlessness is unknown, till elections are honestly conducted, till strikes are things of the past, till prejudice is dethroned, till virtue is always rewarded, till right is supreme and wrong annihilated.

Till these things, and many more, are brought about, there will be education required by the Grange. And there will be no better educator in all this broad land than Subordinate Granges of the Order of Patrons of Husbandry. May the time soon come, when the world will recognize the fact, that our Order is an educational association that aids all sections, and elevates all who come into contact with it.

NATIONAL GRANGE HOME.

An effort worthy in every way, is being made to raise funds whereby a permanent building may be constructed for the use of the National Grange, and for the lasting honor of the Order. This body ought to do something at this session to show that Patrons in California are in hearty accord with the project, and are willing to assist in the noble work of building a house that will provide shelter, protection and comfort to those who till the soil, and who honor this country with honest lives and pure hearts.

SUGGESTIONS FOR GOOD OF THE ORDER.

Permit me, before concluding this paper, to offer a few hints; not with any desire to dictate, but rather to have this body take action. We must act, and act, and act, if we would succeed.

First, then, let the State Grange of California see to it that each Subordinate Grange duly observes the *fourth day of December*.

Second, let State Grange officers be more devoted to the work of the Order during the fifty-one weeks when the State Grange is not in session.

Third, arrange, at this time, if possible, for a big State Grange picnic, in the coming early spring.

Fourth, provide for the best and most economic way of making a Grange campaign of the entire State.

Fifth, See that Farmers' Institutes are more numerously held.

Sixth, urge the Governor of the State to give the farmers of this State a more liberal recognition in the many appointments at his disposal.

Seventh, have a committee of good men at Sacramento, during the coming session of the Legislature, to give information concerning agriculture, and to urge the passage of certain needed and reform legislation.

Eighth, let this body, at this session, examine the merits of the proposed amendments to the State Constitution, to be voted upon this fall, at the general election, and let such action be taken by this body as will inform the farmers of the State what their interest is in this matter.

Ninth, take such further action, after a careful investigation of the Patrons' Aid Association, as to you may seem wise.

Tenth, provide a plan, whereby the work of County Deputy may be more thoroughly done, and more liberally remunerated.

Eleventh, encourage public Grange meetings, being always sure to have a good program, and competent speakers, readers, singers and actors, to insure success. Nothing succeeds like success.

Twelfth, send the Grange Missionary through the length and breadth of California. There is much work for him to do. Many farmers ought to have the light, health, assistance and cheer which the Grange can furnish.

Thirteenth, extend the hand of fellowship to all orders and associations that are opposed to wrong; that stand for the right; that raise the fallen and care for the helpless; that work for a principle rather than for a payment; in short, let us join hands with all those that can see good in their fellow beings.

OUR DEAD.

Since last we met, the "icy hand" has plucked from our midst some of those we honored and loved. As silently as the shadows move, they were transported from our earthy Grange. Their faces we shall see no more forever, but their love and their work for this Order will be with us while life lasts.

Bro. Wm. M. Ireland, one of the founders of this Order and ex-Secretary of the National Grange, has been called to his "last home." This Grange can well afford to dedicate a memorial page to one who was so zealous as he was for the Order of Patrons of Husbandry. Among those of our members who have crossed the "dark river" since the last meeting, all will remember our venerable and respected brother, Thos. T. Hooper. We well remember, at the session last year, how his step faltered, and how his body trembled; but we also remember how his heart faltered not, and his love for the Grange was undiminished. Green, ever green be his grave, while peace be to his ashes.

And Sister N. A. Alling of Stockton Grange, our sweet singer, has been summoned to the Grange choir above. The melody of her voice was surpassed by the melody of her life. We knew her at her farm home, when two sweet girls, a bright boy and a loving father and husband, were wont to meet in sweet communion. How often! oh, how often! have we, since her death, thought of that now lonesome house, that saddened husband, those motherless children. May God, in his goodness, care for all.

But the list of the good and the true who have left us is yet incomplete; for we find, on rollcall, that these virtuous, loveable, worthy friends—brothers and sisters—do not respond. As we have said of Brother Hooper and Sister Alling, so say we of each of these—Sister P. Peterson of Antelope Grange and Sister A. J. Woods of Tulare Grange.

Bro. H. Davenport, for many years the venerable Chaplain of Sacramento Grange, and, at the time of his death, the oldest member of the Order in California, has been called to his Father's mansion during the past year.

Let suitable resolutions be prepared, appropriate devotional services held, and the memorial page dedicated to those who have left us.

CONCLUSION.

A brief review of the year's work gives the following: New Granges organized, viz., Madera, New Hope, Independent; and the following named have been reorganized: Wheatland, Petaluma.

A thorough canvass of the State, in behalf of the Order, has been made by competent speakers, at a nominal expense to the State Grange.

The change of official organ was made without any friction or personal feeling. The Representatives of the State Grange have been hospitably received and welcomed by members of the Order wherever they have gone.

There was in the treasury of the California State Grange, on the 1st day of September, 1892, the following amounts: General Fund, $660.89; Lecture Fund, $1695.63; total amount on hand, $2356.52.

Let us take such action at this session as will compel candidates for legislative officers to know what we need in the way of legislation, and will encourage them, if elected by our votes, to remember us and our interests when they are in office.

We have met in the "Garden City" of the West for the deliberations of another annual session. This is a city noted for its beauty, its wealth and its intelligence. Here, we find the charming electric light, the speedy electric car, and the purest and best type of electric, magnetic, hospitable men and women. Here, schools are numerous, churches plentiful, and intelligence almost universal. Here, the eagle of America may well want to find a home and rear an offspring noted for its independence. Here, all that is progressive, honest, brilliant and American may well want to find an abiding place. And here we find ourselves, on invitation of San Jose Patrons and San Jose citizens, assembled for the good of our Order. Let us *act* with *magnetic, electric, honest, intelligent* purpose. Let no one go away and say, "The meeting is a failure;" let no harsh word be uttered to wound a sensitive heart; let no undue haste be made, yet let no time be lost in useless labor. Let the mantle of charity—which each one shall sometime need—be ready to cover the mistakes which we may think others make. Let the love of Humanity overshadow the love of self or of local section; let WISDOM SPEAK, while Courage, Virtue and Industry listen; let manhood be on guard at the outer posts, while womanhood counsels and assists at all our meetings. Let the experiences of the *past* join hands with the intelligence and honesty of the present, to the end that what we do, or say, or think, may redound to our honor and the benefit of the world in the *future*. In short, let us "*act, act* in the living present, heart within and God o'erhead."

Fraternally submitted,

E. W. DAVIS.

OVERSEER'S REPORT.

To the Officers and Members of California State Grange—DEAR PATRONS: The fleeting wings of Time, unwearied in their flight of other years, again bring us to the crowning glory of the season—the meeting and greeting of worthy sisters and brothers, from center to circumference of our golden State. And while hand clasps hand, and love warms the heart, the soul shines forth untrammeled by conventionality or creed, and the trials and tribulations of the year—if not of a lifetime—are shaded and softened by a mute sympathy which binds us closer, nearer and dearer, in our great family reunion.

Since our last parting farewell to the kindly remembered and absent patrons and people of Haywards, many eventful incidents have been transcribed upon the historic page, to be conned with pleasure, distrust or doubt, when gray old Time shall have added yet another century to the affairs of men; and in all this the Grange has played no unimportant part, has left no unredeemed pledges, and has lost nothing which a quarter of a century of education in unselfishness, humanity and truth has secured.

Since our last convocation, my official labors have been (regrettfully) nothing. An aggravated attack of la grippe, which has continued, in a measure, until to-day, took complete possession of me soon after our meeting, and incapacitated me for anything useful, much less ornamental; yet, with pen and thought, it has been my privilege to visit many a Grange home and farm—not only here, but across the "mountains"—and to have heard not only the rejoicing, but the whispered secret of the burdens of many a weary matron, and the smothered wrath of many a wrong-racked patron.

The year just past has witnessed a victory for the Grange, in one of the most severe trials of its life, and, in the face of vacillating friends, who claim it does nothing, and jealous enemies, who claim it does too much, has unflinchingly stood at the post of honor which twenty-six years of broad, liberal, national service has gained for it, and stands to-day in the giant strength of a manhood and womanhood the peerless champion of law and order, and the acknowledged foe of dishonesty and crime. How its pioneers should rejoice that their sacrifices have been so richly rewarded, and how a grateful agriculture should ennoble and perpetuate its future! There is grave need that this should be done; for, while neither an alarmist nor a prophet, even the "son of a prophet," I daily note, with shame and lamentation, the trend of the times in lockouts, strikes, recriminations, anarchy, violence and bloodshed, coupled with a foreign contempt for all laws, both human and divine. The storm is already at the root of the tree of Liberty. Gold and self are God, and both are wildly, madly worshipped. Our nation is fast becoming the battle ground of cast and clan, of circle and mind, of greed and avarice, of stupid ignorance and gigantic rascality, without a thought of anything but self aggrandizement, even if it be secured over the trampled remains of that justice should protect, that right should secure, that liberty should defend and that patriots revere as sacred. Our public servants are becoming dictators, our laws death traps, our temples of learning are being undermined through intemperance and fanaticism, our trades are monopolized by tyrannical unions, who peremptorily refuse the sons and daughters of this so-called free republic, who are not in the ring, the right to acquire that skill in some useful pursuit, by which they may honorably support themselves and become factors of strength in the nation, instead of as now, strewn across every common with as tramps and transgressors, punished and maintained in asylums, penitentiaries and reformatories by the industrious millions, already overtasked and overtaxed through profligacy and misrule.

Such things are the legitimate result of centuries of civilization, then commend me to the savage in his wigwam, for there at least "Ignorance is bliss," and the slumbering volcano with all its dread powers of destruction, admired as the most beautiful presence in all the landscape. But do you ask, is there no panacea for these ills? Happily yes. The deadliest poison has its antidote, and requires only discovery and application to effect a cure. You we believe that the antidote for the poison of our body politic is to come from a different direction than that so confidently relied. Our statesmen have been hugging the delusion that we may transgress the vital laws governing the existence of republics, and yet escape the melancholy doom which has overtaken others as proud as our own, if not as powerful, through our system of universal, and especially higher education. Laud education to the skies if you please, and you will scarcely sound the need of praise but as religion requires faith supplemented by work for the fruition of its tenets, so education requires something more than the mere idea in the abstract. It requires not the education of the intellect alone (we are suffering from a superabundance of that already) but of heart and hand as well, the moral and physical if you please as well as the intellectual. It has been truthfully said, cultivate the physical exclusively, and you have an athlete or a savage, the moral only, and you have an enthusiast or a maniac, the intellectual only, and you have a diseased oddity, it may be a monster. It is only by training all together physical, intellectual, social and spiritual that the complete man can be formed. Unfortunately the higher education is lacking in a number of these ingredients, hence, cannot alone be relied upon to bridge the abyss of destruction already narrowing at our feet. The discrepancy must be supplied, and it is found in the happy homes of the descendants of those patriotic yeomen, who, when other tyrants were less relentless than those of to-day, planted the iron heel of despotism on the heart of this incomparable land, left their plows in the furrow to cooperate with farmer Washington in gaining us a heritage which we should make greater sacrifice to preserve intact, than they to secure. Yes, my friends, I tremble for my country, but have hope in its reserves, and that reserve, legislatical as you think me, is found in the intelligent tillers of the soil, and mainly, in the order of Patrons of Husbandry. There is not a day but I thank God for the Grange, and sincerely believe that the time is near, aye, very near, when it will be the Gibraltar on which the contending factions of selfishly organized capital on the one hand and as selfishly organized labor on the other, will be shivered to atoms and sent to their reward, while the Grange will be reverently proclaimed in high places, the savior of those most sacred of human possessions, the flag, the farm, and the fireside. All of which is respectfully submitted.

A. P. ROACHE, Overseer,

SECRETARY'S REPORT.

To the W. M., Officers and Members of California State Grange: The work of another session demands our attention. What have been the lines of our efforts, our successes and our failures, and what are the signs of our future? Your Secretary, as a single laborer in the vineyard, can only at best answer a minor portion of these queries. With the additional interrogatories—what shall we do for the further upbuilding of our glorious enduring Order?—these are the main questions of our annual council, and must be solved by the words and minds of the many earnest and intelligent brothers and sisters gathered from all quarters of our field of labor.

To be useful and valuable for your deliberations, a Secretary's report must deal largely in figures, which are, proverbially, drier than our "wonderful climate."

FINANCIAL STATEMENT—GENERAL FUND.

RECEIPTS from Sept. 1, 1891, to Sept. 1, 1892.

Balance in treasury Sept 1, 1891 (as per last statement)	$ 636 07
Interest to October 1, 1891	16 45
To cash sixth degree	78 00
" fifth "	28 00
" from Trade Card Houses	4 12
Subordinate Grange dues	1,194 10
Subordinate Grange fees	218 00
Supplies	173 10
Carpinteria Grange on deposit	55
Total receipts	$2,348 39
Total disbursements	1 673 85
Total balance	$ 674 54
Less cash in hands of Secretary	13 65
To total in treasury Sept. 1, 1892	$ 660 89

DISBURSEMENTS from Sept. 1, 1891 to Sept. 1, 1892,

Sept. 1	By Dewey & Co., rent of office	$ 15 00
" 1	" A. T. Dewey, salary	50 00
" 10	" Dewey & Co., printing degree blanks (original form)	5 00
" 10	" E. B. Batis, Sec'y's Assistant, bill of sundries	14 50
Oct. 1	" A. T. Dewey, salary	50 00
" 1	" Dewey & Co., rent of office	15 00
" 10	" Dewey & Co., printing Official Communication	4 00
" 10	" Dewey & Co., printing W. Work Circulars	4 00
" 10	" A. T. Dewey, sundry cash advanced as per bill	6 25
" 10	" Mrs. D. D. Hull, sundry cash advanced as per bill	8 40
" 10	" C. A. Hull, sundry cash advanced as per bill	22 30
" 10	" H. E. Pastor, printing	7 00
" 10	" A. T. Dewey, sundry cash advanced as per bill	5 30
" 10	" J. C. Irvine, repairing seal	2 00
" 10	" Dewey & Co., printing degree certificates	2 50
" 10	" Upton Bros., printing	8 50
" 10	" A. T. Dewey, sundry cash advanced as per bill	6 75
" 10	" Eden Grange, to pay hall rent for State Grange	100 00
" 10	" Haywards Hotel, board Sec'y's Assistant and Typewriter	22 50
" 14	" National Grange for quarterly dues for September	60 20
" 20	" National Grange for sixth degree certificates	39 00
Nov. 2	" A. T. Dewey, salary	50 00
" 2	" Dewey & Co., rent	15 00
Dec. 9	" Dewey & Co., printing	5 00
" 9	" Geo. Spaulding, printing	9 25
" 9	" Dewey & Co., printing	2 00
" 9	" A. T. Dewey, sundry cash advanced as per bill	5 10
" 9	" Upton Bros., printing	16 75
" 9	" A. T. Dewey, salary	50 00
" 9	" Dewey & Co., rent	15 00
Dec. 9	By A. T. Dewey, stamps for Secretary's use	20 00
" 9	" Dewey & Co., printing	10 00
" 9	" Dewey & Co., printing	9 00
" 22	" Dewey & Co., printing 500 copies of Annual Proceedings	95 00
" 22	" Geo. Spaulding, printing	7 00
" 22	" Dewey & Co., printing	6 50
Jan. 2	" A. T. Dewey, salary	50 00
" 2	" Dewey Publishing Co., rent	15 00
" 10	" National Grange, quarterly dues for December	28 40
" 10	" A. P. Lemmon, printing	5 00
" 10	" A. T. Dewey, sundry cash advanced as per bill	5 00
" 10	" A. T. Dewey, sundry cash advanced as per bill	1 90
" 10	" Geo. Spaulding, printing	4 50
Feb. 1	" A. T. Dewey, salary	50 00
" 1	" Dewey Publishing Co., rent	15 00
" 9	" A. T. Dewey, stamps for Secretary's use	20 00
" 12	" E. W. Davis, 500 stamped envelopes	11 00
" 12	" Geo. Spaulding & Co., printing	6 00
" 24	" Dewey Publishing Co., printing	2 50
Mar. 1	" A. T. Dewey, salary	50 00
" 1	" Dewey Publishing Co., rent	15 00
Apr. 1	" A. Akin, four dozen G. E. song books	8 10
" 1	" A. T. Dewey, sundry cash advanced	3 25
" 1	" Herald of Trade Pub. Co., printing	28 15
" 1	" A. T. Dewey, sundry cash advanced as per bill	5 60
" 1	" A. T. Dewey, salary	50 00
" 1	" Dewey Publishing Co., rent	15 00
" 5	" B. F. Walton, expense attending Executive Committee meeting	39 70
" 5	" Geo. P. Loucks, expense attending Executive Committee meeting	16 50
" 5	" Thos. McConnell, expense attending Executive Committee meeting	37 40
" 5	" Herald of Trade, printing	5 00
" 5	" A. T. Dewey, sundry cash advanced as per bill	5 00
" 19	" National Grange quarterly dues for March	40 05
May 1	" A. T. Dewey, salary	50 00
" 1	" Dewey Publishing Co., rent	15 00
" 1	" Herald of Trade, printing	2 00
" 1	" A. T. Dewey, sundry cash advanced as per bill	7 00
" 1	" Herald of Trade Pub. Co., printing	4 50
" 9	" A. T. Dewey, stamps for Secretary's use	20 00
June 1	" A. T. Dewey, salary	50 00
" 1	" Dewey Publishing Co., rent	15 00
" 2	" National Grange, 50 digests	9 50
July 6	" A. T. Dewey, salary	50 00
" 14	" National Grange quarterly dues for June	25 65
" 14	" Dewey Publishing Co., rent	15 00
Aug. 9	" A. T. Dewey, cash advanced as per bill	9 60
" 9	" National Grange, 100 Rituals	16 00
" 9	" National Grange, four dozen song books	16 00
" 9	" A. T. Dewey, salary	50 00
" 9	" Dewey Publishing Co., rent	15 00
" 9	" A. T. Dewey, sundry cash advanced as per bill	6 25
Total Disbursements		$1,673 85

RECAPITULATION OF RECEIPTS AND DISBURSEMENTS.

GENERAL FUND.

RECEIPTS from Sept. 1, 1891, to Sept. 1, 1892.

Balance in treasury Sept. 1, 1891 (as per last statement)	$ 636 07
Interest to Oct. 1, 1891	16 45
To cash sixth degree	78 00
" fifth degree	28 00
" from Trade Card Houses (to Oct. 1, 1891)	4 12
Subordinate Grange dues	1,194 10
Subordinate Grange fees	218 00
Subordinate Grange supplies	173 10
Carpinteria Grange on deposit	55
Total receipts	$2,348 39
Total disbursements	1,673 85
Balance	$ 674 54
Less cash in hands of Sec'y	13 65
Total in treasury Sept. 1, 1892	$ 660 89

DISBURSEMENTS from Sept. 1, 1891, to Sept. 1, 1892.

National Grange dues Sept. 1, 1891, to Sept. 1, 1892	154 30
Rent Sept. 1, 1891, to Sept. 1, 1892	180 00
A. T. Dewey, Secretary's salary one year	600 00
Stamps (exclusive of $15 on hand Sept. 1, 1891) for postage on letters, circulars, reports, etc	60 00
Printing circulars, blanks, supplies, etc	154 15
Blank books, stationery and other supplies for State and subordinate Granges	51 60
Expressage, freight, money-orders and sundry expenses	81 50
Dewey & Co., printing and binding Proceedings	95 00
Memorial and incidental expenses	31 20
Railroad fare and expenses of Secretary's assistants at State Grange	22 50
Eden Grange to pay hall rent for State Grange	100 00
Cash forwarded National Grange for sixth degree certificates	39 00
E. W. Davis, cash advanced for supplies	11 00
Traveling expenses of members of Executive Committee	93 60
Total	$1,673 85

LECTURERS' FUND.

RECEIPTS from Sept. 1, 1891, to Sept. 1, 1892.

Sept. 1, 1891—Balance (as per last statement)	$1,664 78
Subordinate Grange dues	970 40
Total receipts	$2,635 18
Total disbursements	933 10
Total balance	$1,702 08
Less cash in hands of Sec'y	6 45
Total in treasury Sept. 1, 1892	$1,695 63

DISBURSEMENTS from Sept. 1, 1891, to Sept. 1, 1892.

1891.	Oct. 10.	By G. P. Loucks, expense as Deputy	$ 26 70
	" 10.	" Mrs. E. Z. Roache, expense Woman's Work Committee	5 00
	" 10.	" B. F. Frisbie, expense as Deputy	28 45
	" 10.	" Don Mills, personal cash deposited by mistake Sept. 27, 1889	4 00
	Dec. 9.	" G. P. Loucks, cash advanced to J. D. Huffman	14 70
1892.	Jan 13.	" J. D. Huffman, expense as Lecturer	15 75
	Feb. 12.	" E. W. Davis, expense as Master	31 05
	" 24.	" W. L. Overhiser, expense as Deputy	38 60
	Mar 25.	" Allen B. Lemmon, printing	3 50
	Apr. 5.	" E. W. Davis, expense as Master	42 50
	" 5.	" Dr. Jas. Caples, expense as Deputy	7 00
	" 5.	" B. F. Frisbie, expense as Deputy	42 60
	" 5.	" J. D. Huffman, expense as Deputy	53 40
	" 5.	" Mrs. J. A. Perry, securing charter list of Madera Grange	25 00
	" 5.	" I. C. Steele, expense A. P. Roache and wife	17 40
	" 19.	" W. L. Overhiser, expense as Deputy	37 65
	" 19.	" W. L. Overhiser, expense as Deputy	117 30
	" 23	" S. T. Coulter, expense as Deputy	24 70
	May 1.	" Daniel Flint, expense as Deputy	18 95
	" 9.	" S. Goodenough, expense as Deputy	9 15
	" 9.	" J. D. Huffman, expense as Lecturer	68 50
	" 19.	" Geo. Steele, expense as Deputy	17 45
	" 24.	" E. W. Davis, expense as Master	20 85
	" 24.	" S. T. Coulter, expense as Deputy	23 10
	June 2.	" J. V. Webster, expense as Deputy	17 05
	" 11.	" Don Mills, expense as Deputy	50 00
	" 18.	" Robt. G. Williams, securing charter list	25 00
	" 18.	" A. P. Martin, expense as Deputy	25 00
	July 14.	" W. L. Overhiser, expense as Deputy	78 25
	Aug. 9.	" I. C. Steele, expense as Deputy	15 25
	" 9.	" B. F. Frisbie, expense as Deputy	16 15
	" 9.	" J. D. Huffman, expense as Lecturer	12 50
	Total		$ 933 10

By amendment of our State Grange Constitution at our last session, the per capita dues paid by subordinate Granges to the State Grange were reduced one-fourth—from 20 to 15 cents per quarter. This amendment took effect with the quarter ending March 31st, so that our annual report to September 1st embraces three quarters at the reduced rates.

The admission fees paid to subordinate Granges by applicants remained as before—$3 for men and $1 for women—but the fees paid by the subordinate Granges to the State Grange were reduced for men from $1 to 50 cents and for women from 50 cents to 25 cents.

The statement shows that our income the past year from dues amounts to $2164.50; from membership fees, $218; from printed supplies and other sources, $173.10; total, $2555 60. Income the previous year: From dues $2371; fees, $398 45; supplies, etc., $152 30; total, $2921 75. Decrease in 1892, $366.15. That there was no greater decrease from reduction of dues is accounted for from the fact that a portion of the dues paid in during the past 12 months were for returns of previous quarters at the higher rate. Consequently, the effect of the reduction will be more fully felt hereafter.

The following statement collated from the published proceedings of the State Grange, I believe, will prove valuable for reference and comparison by members:

The greatest special feature of the year's work has been termed the "State Grange Canvass," adopted by Worthy Master Davis, assisted by the Executive Committee, Past Masters, Deputies and Secretary in planning and carrying out the system for the first time in this or any other State. Nearly all the subordinate Granges heartily joined in the canvass by consenting to the request of the W. M. to call special meetings for receiving the State Grange Lecturers corresponding to the convenience of the latter for visiting subordinate Granges in rotation according to location. The Lecturers labored devotedly, and commendable enterprise was evinced on the part of many Granges to have a large class of candidates to receive instruction in the 3d and 4th degrees from the able hands of the State officers. Through this means, and the able lectures given in open meetings accompanying the special Grange sessions, goodly additions have been made to our membership in most parts of the State.

Two subordinate Granges have been stricken off the list as dormant, through failure to make returns for more than two quarters, viz: Gridley, No. 290, and Walnut Creek, No. 119.

Three dormant Granges have been reorganized and added to roll-call, viz.: April 27th, Grimes Grange, No. 293, with 23 members, by Gen. Deputy B. F. Frisbie; May 7th, Wheatland Grange, No. 260, with 26 members, by the same; June 4th, Petaluma Grange, No. 23, with 34 members, by Deputy A. P. Martin.

Three new Granges have also been organized, viz.: March 12th, Madera Grange, No. 300, with 28 members, the charter list being secured by Mrs. J. A. Perry and the Grange instituted by J. D. Huffman, S. L.; May 20th, New Hope Grange, No. 301, at New Hope, San Joaquin Co., with 30 members, by R. G. Williams, Deputy; Aug. 31st, Independent Grange, No. ——, at Linden, San Joaquin Co., with 48 members, by W. L. Overhiser, P. M. This gives an increase of four to the roll-call of subordinate Granges.

We are taught in all things by experience, and in my opinion the lessons of the State Grange canvass indicate that it is important that all Granges should, if possible, be visited by previous appointment by some State officer or Gen. Deputy; that while the movement continuously all along the line may have been necessary and the best on starting a new system, it will prove more satisfactory in future efforts to not hold the meetings on consecutive days in Granges in near proximity nor to try to supply two or more leading lecturers to visit the Granges of the entire State at one season of the year.

The financial returns of the year indicate a positive increase of membership all told in the jurisdiction. This is remarkable in view of the efforts put forth by other and more or less competing beneficial and fraternal associations, and all the more creditable to the sterling organization and principles of our firm and advancing Order. Let this, and the hope and belief that our goodly association is destined to avoid the rocks and quicksands of all previous attempts to organize the farmers of our land for protection against onerous legislation, monopolies, fraud, political and other corruptions, stimulate every Patron with strength for greater labors and nobler deeds in forwarding our cause, which is so just, to the highest point of success and the widest sphere of benefit to our own fraternity and humanity.

The State canvass enlivened up old Granges, and inspired and enthused the lecturers themselves. The open meetings connected

therewith in many places were successful, and extending information of the principles and merits of the Grange to outsiders, has no doubt sowed good seed that will bring forth her harvest.

It is a singular (if not unregretted) fact that no proposed amendment to either the National or State Grange Constitution is presented for consideration at this session.

In nearly all instances where members have reported patronizing the Grange Trade-Card system their experience has been favorable. For some reason, however, the system has not been well patronized yet through either the San Francisco, Sacramento or Stockton firms that have contracted with the Executive Committee. This may be largely through a lack of thorough understanding of the system and privileges involved. About the same can be said of the Patrons Relief Association. I believe that both enterprises, with due encouragement, can be made strong auxiliary helps for the perpetuity and progress of our Order. Two Rock has been the banner Grange in cooperative enterprises, and its Master will duly present resolutions on the subject for your action.

By request of Master J. H. Brigham, Chairman of National Grange Legislative Committee, four separate blank petitions were forwarded in March to each subordinate Grange for signatures, as follows: In favor of Free Delivery of Rural Mails; Pure Lard Bill; Pure Food Bill; Gambling in Farm Products. These petitions were to be finally returned to the Secretary, John Trimble, of the National Grange Legislative Committee, Washington, and I hope were numerously signed and promptly forwarded and used to good advantage.

Pardon me, fellow Patrons, if I again urge too strongly the employment, if possible, of some zealous and competent officer or member of the Order, at a fair salary, who has the rare endowment of being fitted to make a farm-to-farm canvass in a becoming manner, during at least six months of the coming year, believing, as I do, from past experience and observations, that a larger amount of successful building-up of the Order can be thus speedily accomplished than in any other at present available manner.

The list of new and reorganized Granges shows that a few of our good brothers and sisters have labored earnestly and successfully in the field. It is to be hoped their example will inspire many others to cultivate and garner even greater sheaves to deliver at our next annual council and feast.

Of the many good deeds of California Patrons, I wish to congratulate you most of all upon the part taken in securing the Australian ballot system of voting in our State, knowing full well without the action of this State Grange and the self-sacrificing work of numbers of individual Patrons, that most important of all new laws would not now honor our statute books.

Let us be patient, kind, forbearing, forgiving and ever helpful, one to another, that our councils may be harmonious and our labors finally blessed with a liberal harvest. Fraternally,

A. T. DEWEY, Sec'y S. G. of Cal.

POMONA'S ANNUAL REPORT.

Pomona, in ages past, in her Roman home was crowned goddess of tree fruits. Armed with the pruning knife, she busied herself within her sacred groves curtailing the branches that straggled out of place, repressing the too luxuriant growth and destroying nests of insects, knowing that to reap a luscious and bountiful harvest her trees must be free from incumbrance and pest; and not alone for the mere preserving of her trees did her symbol prove a treasure but as time passed and not being entirely satisfied with what she had, she sought for something new and better, and after repeated experiments and trials she knew how and what to do. She had the means with which to split the twigs to insert a graft, thereby making them adopt a nurseling not their own.

After years of experimenting and toil in her Roman gardens she crossed the seas and took up her cultivation of fruits in a field called the "Grange," where the cultivation of mind was was added to the cultivation of fruits. It was here she met Ceres with her hands full of golden grain, and Flora prepared to strew her path with flowers. And then she knew that the new home would be amongst diversified crops with her sisters Ceres and Flora as coworkers. Thus, she has toiled on from year to year dispensing her fruits with a liberal hand. Now, let us consider for a few moments what use we can best make of the fruits of our labors for the furtherance of the Order we all love so well.

I think we will agree that the National Grange made a move in the right direction, in appropriating $20,000 for the erection of a Grange Home in Washington, But to complete this temple will require thousands of dollars yet unsubscribed. So, I say, Sisters Flora and Ceres, why can not we interest our representatives in every Subordinate Grange in the State, as their each successive season rolls around to give a festival in their name; the amount derived therefrom to be added to the temple building fund? And let us further ask that a report of the amount so derived be forwarded to us from every Grange, in time for us to embody it in our annual report next year, that we may all know what each Grange has accomplished in this way.

For thus it is with societies as in private life, if we wish to advance we must have some object in view, some plan formed to accomplish. We can not let things of the future entirely alone if we wish to increase in knowledge and usefulness Now that we have a plan that our superiors have presented to us let us bend every effort to assist them in its realization. Like Pomona, let us not be satisfied with what we have, but seek to improve and advance our possessions. Yet little will be accomplished if we fail to broaden and cultivate our intellects, but to have them bear a bountiful harvest we must so live as to develop and strengthen our physical beings.

May Pomona's symbol be of service to us in pruning selfish, imprudent and jealous thoughts from our minds. And in faith let us hope that we will ever be charitable to one another and mankind. Respectfully submitted,

ANNETTE BROUSE.

REPORT OF STATE DEPUTY W. L. OVERHISER.

Worthy Master, Officers and Members of California State Grange: I will, in this report, make the statement of my Grange work, since our last annual meeting, as brief as possible.

December 7, 1891, I visited Eureka Grange, at Auburn, Placer Co., by invitation of its Master, Bro Gantvalley, to make a house-to-house canvass, and also to fill several appointments in that section, which had been made for me by Bro Gantvalley. I arrived in time to attend a Grange meeting in the afternoon; in the evening we held a meeting in Edwood schoolhouse. There was a good attendance, and we secured one application for Eureka Grange. I went home with Bro. and Sister Bircher for the night. Next morning Bro. B. and myself started, in his vehicle, for Clipper Gap; weather cold and threatening rain. Arrived at Bro. Ham's residence, near Clipper Gap, about noon, where we took dinner. A meeting was to be held in the evening, but it commenced to rain early in the afternoon, and, as it was the opinion of all who were at Bro. Ham's that there were strong indications of a hard storm, I decided to take the train which would soon be due, and go home, to return and resume work when the weather should become settled. Receiving another invitation from the Master of Eureka Grange to visit them January 15th, I left home, on that date, for Auburn; train two hours late; did not arrive until 2:30 P. M.; went directly to the hall, and arrived just as the Grange was about to initiate a class of five. After initiation the second degree was conferred, and I then gave them the work and explained the Trade-Card system. It was voted that as many of the members as could would attend Magnolia Grange, who were to install their officers and have a Harvest Feast.

Next morning I left Auburn with a party of 12 good and true Patrons, in a four-horse coach, for Magnolia Grange hall, were we met the members of Bro. Still's Grange, installed their officers and had a profitable session. I returned to Auburn the same evening and spent the night with Bro. Gantvalley. Next morning we started early and canvassed all day. All we met seemed to think favorably of our Order, but wanted more time to consider the question of joining, as many had joined the Alliance, and were waiting to see how it succeeded.

Monday, Jan. 18th, I started out in good season, with Bro. G., for another trial to secure applications, with about the same result as the day before. At 2 P. M. I held a called meeting and conferred the third and fourth degrees on four members. Tuesday, at 6 A. M., took the train for home.

There seems to be plenty of material in Placer county for Granges, but it requires more time than I could then give, and an energetic organizer, to bring about satisfactory results.

The next call for help was from the Worthy Master of Vacaville Grange, to come and spend a week in canvassing the surrounding country, and see what could be done in the way of reviving their Grange. On the evening of March 9th I left for Vaca Valley; arrived at 10 A. M. next day, was met by Bro. Webster, and we commenced work at once, securing five applications by evening. Next day Sister Smith (at whose home I had spent the night) and I rode all day, stopping at every house where she thought the inmates would be at all liable to favor the Grange. We met with poor success in getting applications, but distributed Grange literature among the people.

Saturday, the 12th, I attended Vaca Valley Grange; only ten members present; received six applications and arranged for a called meeting on Monday at 2 P. M.

Saturday evening several members met me at Sister Smith's, and I gave them the unwritten work. Sunday afternoon, called on Bro. Ashley and family, and gave the work to the Worthy Master. Monday forenoon canvassed, and at 2 P. M held a meeting at Grange hall, elected and initiated seven members and conferred the second degree.

Tuesday, March 15th, I left Vacaville for Woodland. At the depot I was met by a man sent by Bro. Blowers, whom I found at home, sick and unable to attend to business. Bro. B. thought there could be a Grange organized at that place, but as my time was limited, I could not remain long enough in Woodland to organize one.

Wednesday, the 16th, I went to Dixon. Master Kline received me. In the afternoon we circulated a call for an evening meeting, which was held, and I gave the work. I found that a good, active canvasser was needed, to work up an interest and get members in the order. Left for home next morning.

On March 20th I left home to fill a series of appointments arranged for myself and other Deputies by the Master and Executive Committee of State Grange, to commence at Salinas and continuing to Santa Barbara. I first went to San Francisco, stopped overnight, and took the morning train for Salinas, arriving at 1 P. M., Past Lecturer Bro. Geo. Steele arriving soon after from his home in San Luis Obispo county. We were met by the Master and secretary of Salinas Grange, and learned from them that no arrangement for or announcement of the meeting had been made. Tuesday, the 22d, we took a team and canvassed, and learned, by conversations with different parties, that the prospect was favorable to revive the Grange at Salinas, if sufficient time was taken by good canvassers to work it up. But, as appointments had been made for us at other points, we were obliged to leave on the 1 P. M. train Wednesday.

Bro. Steele became quite enthusiastic, and said he would meet me, at any time I might name, and spend a week to revive that Grange; but I have not yet found time to carry out our plan. We arrived at Jolon, the next point on our program, at half-past seven Wednesday evening, a portion of the distance on the train, and then 20 miles by stage. We were received by Past Master Paulsel and taken to his home.

Thursday, the 24th, we met with San Antonio Grange, and held a closed meeting in the forenoon, conferred the third and fourth degrees and had a feast. In the afternoon an open meeting was held, and Bro. Steele gave them one of his impressive talks. The whole affair seemed to be a grand success. The evening was devoted to enjoyment by the young people.

Friday, March 25th, Bro. and Sister Paulsel took us over to San Lucas, where we held a closed meeting in the forenoon, conferred the third and fourth degrees, and had the usual feast. In the afternoon we held an open meeting with good attendance. I think Bro. Steele's earnest words impressed the people in favor of the Grange.

Saturday, the 26th, we left San Lucas at 7 P. M. with Bro. Thos. Ross, Master of San Lucas Grange, who took us in his carriage to Bradley. Learning that no arrangements had been made for a meeting we immediately sent a dispatch to San Miguel, that we would be there that evening. We were met at San Miguel depot by a lady whose name I have forgotten, who, with her husband, was formerly a member of San Jose Grange. It was soon made known that a Past Lecturer and a Past Master of the State Grange were in town and had accepted an invitation to attend the Alliance meeting to be held that evening, and would speak. We were both called on. Bro. Steele gave them a good, earnest talk, and I think the people went home thinking more favorably of the Grange than before.

I will say, in passing, that in this section of the country, at least, the Alliance seemed to have swallowed up whatever of interest there may have previously been for the Grange, and that is why, in some places, no arrangements had been made for Grange meetings, as we had reason to expect there would be. The omission of those meetings was the cause of my being ahead of time in the later appointments.

Sunday, March 27th, at San Miguel, Bro. Steele and I parted, he to return home, and I left for Paso Robles on the 4 P. M. train, where I arrived in the evening, remained over night, and left by stage next day for Creston, arriving at Bro. J. V. Webster's at 9 P. M., unexpected so soon, but met with a warm Grange reception. Tuesday, March 29th, it rained all day and night, two inches of rain falling during that time, so that no canvassing could be done. At 10 A. M. Wednesday, Bro. Webster and I left for Paso Robles to hold a public meeting in the afternoon. There was only a fair attendance, the rain doubtless keeping many away. Returned from Paso Robles and went to Creston next day and talked up the Grange. It was showery all day.

Friday, April 1st, Bro. Webster took me around to see the people, and work up an interest in the Grange. We met with but little encouragement. Saturday, April 2d, was the day appointed for the Grange meeting, but there was not a quorum present. In the afternoon we held an open meeting, with a fair attendance, after which the the citizens met to organize a People's Party Club. Sunday, the 3d, Bro. Webster and I left his home in his vehicle for Bro. Geo. Steele's, arriving about 5 P. M., after a long and tedious ride over the mountains. There we met with a cordial reception, and were well entertained by Bro. Steele and family.

On Monday, April 4th, Bros. Steele, Webster and myself attended Arroyo Grande Grange, Bro. Steele Master. We held a closed meeting in the forenoon. After dinner an open meeting was held, with a good turnout. Bro. Webster gave them one of his practical talks.

Tuesday, April 5th, we took the train for Santa Barbara, arriving at Santa Ynez in the evening. Stopped over night and left at 8 o'clock next morning for Santa Barbara, by stage over the mountains, arriving in the evening. Being two days ahead of time, I did not meet Bro. Woods as we had previously arranged. Bro. W. lived some distance in the country, so I looked up the Secretary of the State Alliance, Bro. Barber, formerly a member of the Grange, and learned from him that the County Alliance was having a two days' meeting. Accepting his invitation to attend, I met many of the members of Carpenteria Grange there, who gave me a warm welcome. I learned that they were arranging for me to stay with them several days, and expected to hold their meeting the next week, but as I could not stay so long, they changed their program, and held the Grange meeting at the time appointed by the State Grange. The two meetings kept many of them on Grange and Alliance work four days, but they responded well. We had a closed meeting on Saturday in the forenoon, and an open meeting in the afternoon, with good attendance, many Alliance members who did not belong to the Grange being present. I talked until I was completely exhausted, and not a single person left the hall. When I stopped, some present, not members of the Grange, began to ask questions. I suggested that some music would rest us all. After listening to some good music by the choir, I then spent nearly an hour answering questions. They expressed themselves well pleased with the meeting and wished both Grange and Alliance God speed. I went home with Bro. Cadwell for the night and left next morning for Santa Barbara, where I took passage on the steamer for San Francisco, reaching that city at 10 A. M., April 12th, and Stockton the same evening.

My next appointment, as arranged by the Executive Committee, was with the State Lecturer, Bro. Huffman, to commence Monday, April 18th, at Vacaville; Grimes, Wednesday 20th; Antelope, Friday, 22d; Orland, Saturday, 23d; Millville, 25th; Red Bluff, 28th; Nord, 29th, and Chico, 30th. As Bro. Huffman has given you a detailed statement of our work, I will not go over the ground again, but will state that I received a letter from W. M. of S. G. requesting me to attend Butte Grange picnic on the 30th of April. I then arranged with Bro. Huffman to finish up our engagement at Chico on the 30th and sent a communication to Worthy Master Master of Dixon Grange that I would be there on the evening of the 29th. But, again, we had to change our plans, for on reaching Red Bluff it was raining, and continued to rain all night, and learning that no arrangements had been made for meetings at Nord or Chico it seemed useless for Bro. Huffman to go to either place, so he concluded to go with me to Dixon and if the weather was pleasant, to remain over and attend the picnic. When we arrived at Dixon we could find no accommodations for the night, as the earthquake had so shaken the buildings that the brick hotels were abandoned and the wooden ones were full. Bro. Huffman decided to go to Sacramento on the evening train. Bro. Dudley invited me to stop with him, provided I would sleep in his house which had been so shaken up that his family was sleeping in a tent. It rained during the night.

Friday, the 29th, the weather was pleasant. During the day, while riding with Bro. Dudley, and nearing town, another shock of earthquake sent the excited people rushing to the streets of Dixon. I remained over night with Bro. Dudley and family.

Saturday A. M., April 30th, there were indications of more rain. While waiting for the train to start for home, Bro. Aylesworth and family passed on their way to the picnic grounds, and I accepted their invitation to join them. Arriving at the picnic grounds we found a few had gathered in. After lunch I gave them a short talk on the aims and objects of the Grange and what it had accomplished, and I think a good impression was made on the few who were present. I have no doubt that if I could at that time have staid lower in that vicinity a Grange might have been organized at Davisville. The work laid out for me by Ex. Com. and Master of S. G. being finished, I left Dixon that evening, arriving home May 1st.

Tuesday, May 17th, I attended a picnic at Walls' Grove, near Linden, where I met quite a number of the old members of Linden Grange which gave up its charter several years ago. In talking with them I found they were in favor of having another Grange at Linden. I then made them this proposition: If they would insure 40 charter members I would organize a Grange. Bro. Walls and others promised to see what could be done. After waiting a reasonable time I called on Bro. Wall, he had turned over the papers I had sent him to Mr. McIntire, and advised me to see him. I found he had done nothing in the matter, but intended to soon. I waited another week and called on Mr. McIntire again, with the same result. Together, we then started in my buggy and I rode about 40 miles that day, and we secured several names. I now felt that the work was started. Following it up I succeeded in organizing an "Independent" Grange with 48 charter members, all good and reliable. I feel assured it will be a good, enthusiastic Grange. In my experience I find that an organizer must attend strictly to the business in hand and not let his interest in the working until the new Grange is in good working order, as very much of its subsequent success depends on thorough work at its first meetings.

I attended three meetings of Independent Grange before it received its dispensation. It is now in good working order and is represented at this session of the State Grange by Master, who will report its condition at the present time.

W. L. OVERHISER, State Deputy.

INFORMATION FOR SETTLERS!

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They have 400,000 acres of arable, irrigable lands upon which the sun shines almost constantly; and their enormous irrigation system renders them independent of the annual rainfall.

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Kern is the largest county in the San Joaquin Valley. It has the finest climate for curing and drying fruits, etc.

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Its area is 5,184,000 acres.

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The home of the peach, French prune, pear and raisin grape.

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No rocks, hills or stumps on the land.

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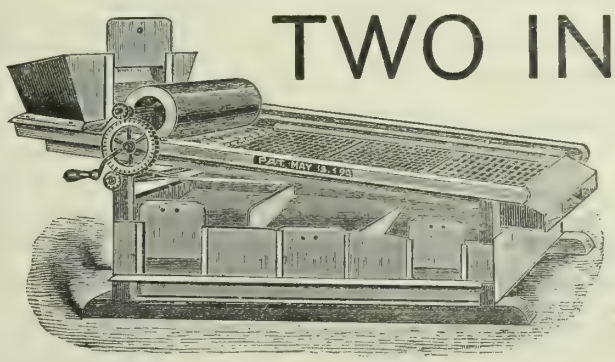

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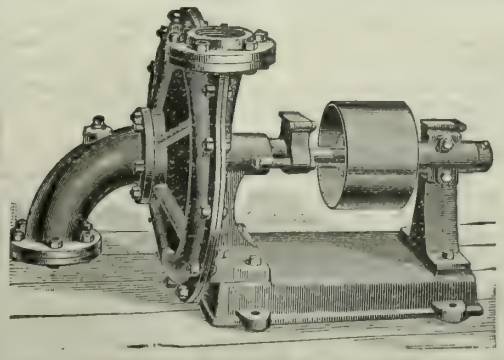

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The Home Circle.

The Norther.

Written for the RURAL PRESS by ISABEL DARLING.

With a quiver, a rush, and a whirl of the air,
Like the breath of a beast bursting forth from his lair,
The norther came down on the valley by night
And rioted still at the coming of light.
It swept down the highways,
And roared through the byways,
Then over the dark, shrinking forest it hung
And tore at its hair; it wrenched, twisted and flung
Each small, helpless thing, and then dropped as if spent,
With one morning's frolicsome mischief content,—
As still as a lion awaiting his prey,
As still as if listening; then far away
It moaned to the boughs of the shuddering trees
In mimicking scorn of the confident breeze
That came with the nightfalling in from the seas,
But fled with its soft, gently pitying tears
All chilled in the tumult of gathering fears,
All mocking with laughter,
The norther flew after,
Hurled back with the shriekings of savage delight
The blessing the ocean wind lost in its flight;
Then snatched into shreds the bewildered mist-clouds,
Called out to the ships in their pale, folded shrouds
And struck at the ocean's white, quivering bands;
But lingering long with the sea and the sands,
Forgot its resentment as over it stole
A tenderness born of the great Over-Soul,
And fluttering down by the water-worn rocks,
It whispered the secret of far-away shocks
Of battles, of earthquakes, of embryo stars
Flung forth into space, of fiery bars
That guard the mysterious, northernmost sea—
Of *all* pent-up forces that rage to be free.
Then glided the sea-wind, the soul of the waves,
Again from the innermost depths of the caves,
Caressed the fierce norther and veiled it in gray,
And sighed o'er the havoc it wrought on the way,
Till sobbing, repentant, at nightfall it turned,
And meekly accepting the blessing once spurned,
This strength that but yesterday raged to be free
Came bearing the clouds gathered over the sea,
With promise of plenty for famishing pain,
Of springtime and beauty, with down-dropping rain.

A Word in Season.

Written for the RURAL PRESS by ELSIE ANGE.

Mrs. Bradford had given one of her pleasant lunch parties, and as the afternoon passed in chat and fancy work, one of the guests, a pretty and graceful young woman, excused herself from remaining longer on account of her early dinner. She had no sooner left than she became the subject of an animated conversation.

"Who would think that was the gay, laughing Alice Flint of a few months ago?" asked one.

"Who, indeed?" echoed the rest of the guests.

"How she is fading!"

"What a fretful, unhappy manner she has!"

"How sarcastic she is upon the subject of marriage!"

Thus the comments passed around. Mrs. Bradford listened in silence, and she noticed that but little sympathy was expressed for the bride, who, the company seemed to think, failed to appreciate her husband, who was a man domestic in his tastes, temperate in his habits, and faithful in his business.

"Such a husband," they said, "was a perfect treasure."

"Poor Alice!" sighed Mrs. Bradford, when she was at last alone with her own thoughts. "How well I remember when I suffered as she does, and when I turned to others for sympathy I was criticised as she has been to day. Dear child! I wish I could lighten her sorrow."

Mrs. Bradford did not dismiss the matter with these sympathetic words, for a week later found her cheery face in her friend's pretty parlor. Alice was delighted to see her, because she was feeling blue, she said. Indeed, since her marriage, she was always low-spirited when she was alone.

"Then the worst thing you can do is to stay in doors," said Mrs. Bradford, "for you will grow morbid. Either work in your garden at such times or take an exhilarating walk."

"But I take no interest in gardening or walking, or scarcely anything else," Alice answered listlessly.

"Then you must fight against your inclinations," smiled Mrs. Bradford, "as I did in my early married life."

"Why, Mrs. Bradford! Did you ever feel as though you had lost all interest in everything? No, no! I cannot think so. You are too sunny in your disposition. Your home is so attractive, and your husband is so appreciative." Here Alice paused, with tears gathering in her eyes.

"Yes, Alice," answered Mrs. Bradford gently. "I have not only felt as you do, but I have also been one of the most unhappy wives in the world. No wonder you look surprised, for it is many years since I have broached the subject, and, after some bitter experiences, I learned to keep silent on the subject of my domestic infelicities for I found that people grew weary of my complaints, talked behind my back, and that my husband received all the sympathy. Like yourself, Alice, I left a home where I had been a cherished daughter to become the wife of a man newly established in business. As I was a favorite in society, my desire was to take a suite of rooms in a fashionable boarding house; but Lewis prevailed upon me to commence housekeeping in a cottage. I was entirely inexperienced, and I learned very soon that doing my own work conflicted sadly with my society duties. This shocks you, dear, because you think that you could not get along without your neat German girl. Well, my temper began to suffer in the contest, especially when I found that my husband did not sympathize with me in my trials. He could not see that I needed help, and I thought that he failed to appreciate my endeavors to please him. I scorched my hands (and also my face) in preparing dainty dishes for him. He took it as a matter of course. I donned my prettiest dresses, and then had to draw his attention to them. I told him angrily one day, that instead of a white silk dress, I should have been married in a calico kitchen gown. What did he say? He smiled and said that he would have been perfectly willing, as I looked fully as well in the one as the other. He meant what he said, but at that time I did not appreciate the compliment. But this was not all. Lewis was often so preoccupied with his own thoughts that he did not listen to me, and my witticisms often passed unnoticed. But the hardest of all to bear was the loss of the tender words and the delicate attentions of other days. I thought bitterly that they had been laid away with my wreath and veil. My husband was practical and undemonstrative, and it nearly broke my heart. Yet he was not unkind. He had a calm, even temper, and never scolded or raised his voice, but it had a most exasperating effect on me, who all my previous life had lived in an atmosphere of admiration and praise, and I feel ashamed of the many bitter, bad tempered things I used to say to him.

"You say you think he deserved them. Well, I thought so then myself. It was not long before every one saw that I was unhappy; and then, I talked of my troubles to my friends. It is the deepest regret of my life that I ever did so. I remember, one day I was pouring my griefs into the ears of one of my dearest girl friends, while my face was bathed in tears, when all at once I discovered that she was laughing at me. Yes, laughing as though I was telling her some amusing story. It was wonderful how soon my tears were dried, and ever after, if I hinted of my troubles to her, it was in a humorous manner, which is far better if one must complain than to be tearful or sarcastic. I had another friend, a former schoolmate, who was very sympathetic and deeply interested in me.. She never seemed to weary of my complaints and was a most patient listener. I valued her friendship highly, until I found that she had depicted my experience in a bright little story, the opening for her of a successful literary career. You may imagine my chagrin when I was confronted by my relatives with being the author of the story, as they knew my complaints by heart, and there, they were printed in my own words! My friend had only changed the names, graced my husband's nose with eyeglasses, and transformed me into a blonde.

"What did my husband think about it? Well, for once, I was thankful that he was too practical to read stories, so he remained in blissful ignorance that he was masquerading in literature as a near-sighted domestic tyrant."

"Now, Alice, I am going to tell you of a great mistake that I, in common with many others, have made, but which, I trust, will have no part in your experience. There was another sympathetic friend who made a prolonged visit at our house. She was so tender and so kind to me, and so very sorry that I had thrown myself away upon such an unappreciative man as Lewis Bradford. Her pity was unceasing. Heretofore I had at times been reasonably happy in my home, but that woman followed me up relentlessly with her expressions of sympathy, until at last my eyelids were always red with crying and my mother was full of reproaches. My husband's long-suffering patience became sorely tried. One day, when our visitor was out, Lewis said to me:

"Do you know, Clara, that I believe that Mrs. Blank is trying to make trouble in our home?"

"No, she is not," I answered defiantly.

"Yes, she is," he returned firmly, "for she has attempted to sympathize with me."

"What is that?" I asked quickly, scarcely believing my ears.

He repeated what he had said.

"What did she say to you?" was my next eager question.

I shall never forget the way he turned and confronted me, while his eyes flashed with indignation.

"What did she say? Do you think for one moment that I would hear any one speak disparagingly about my wife? No, Clara, I am not that kind of a man."

Then he walked out of the room, leaving me blushing with shame and feeling dreadfully mean.

Well, Mrs. Blank seemed to feel uncomfortable and left soon after that, and I was not sorry to bid her good-bye. Such friends are very dangerous in the home, Alice."

Mrs. Bradford paused and seemed to be thoughtfully considering how she would continue her story, while Alice mused to herself: "No, I shall not invite Bertha James to visit us, as I intended." Then she said, while her face glowed wth interest: "My husband is also undemonstrative. Tell me how you became reconciled to your marriage, Mrs. Bradford."

"Reconciliation came with time and experience, Alice, for men like our husbands always wear well, however disappointing they may be to their brides. Why, it was only the other day that I was looking over some old wedding-cards of friends whom I envied their gallant, attentive husbands. Some have been separated for years; others have grown careless and indifferent to their wives, and a very few are still chivalrous husbands. I thought, as I looked over them, that I would not exchange my husband for the best among them. Indeed, he *is* the best to me now. But we can't put old heads upon young sholders, my dear. I know you miss the attentions of your lover, but try to appreciate your husband's virtues, Alice. If you are inclined to complain, be thankful for his even disposition and temperate habits. Get out of doors all you can. I find that tending flowers promotes cheerfulness, and that a canary bird makes even a sad home blithesome. Then, there are always poor people or sick friends that you can visit with your gifts and words of kindness. In cheering others, you increase your own happiness."

"I will try to profit by your advice, Mrs. Bradford. I feel my heart grow warm as I listen to you," Alice answered earnestly.

The kindly visitor smiled into the fair face before her. Such a change had come over it during her call! The blue eyes had softened into gentleness and the petulant droop had disappeared from Alice's pretty mouth as she continued:

"And now, Mrs. Bradford, I would like to complain a little more, if you will let me. I'll try and not do it again, for George is often very kind and appreciative; but how about our evenings? If we stay at home and have no company, George is dull and drowsy and don't appear to be interested in anything I do or say. If we call on friends, he seems bored and anxious to leave, and I can't help saying sarcastic things before people and then he sulks. If we go to places of amusement, he is so quiet and serious, and I feel that every one notices that he is negligent in paying me attention."

"Yes, I know all about that from my own experience, Alice. You are gay and vivacious, while George is quiet and retiring. Have congenial occupation for your evenings at home—your music, needlework or an amusing book. Let him doze if he wishes, but be cheerful yourself and don't complain about his dullness. He has cares and anxieties that you know nothing about, for, being a reticent man, he keeps them to himself. You can't change his disposition by finding fault, but you can ruin your own. Then, don't be exacting. Perhaps you watch him too closely, and expect too much from him when you are out together. I found that when I ceased to exact attention from my husband that he became as attentive as I could desire. Indeed, Alice, I fear that I was very arbitrary in my early married life, and but few men can brook despotism. Their self-will rises against it like a wall of adamant."

"I have never considered myself arbitrary," said Alice, "but I know I am very sensitive."

"That is what I thought about myself, dear, and I wondered why my husband persisted in thwarting and wounding me; but my attention was arrested one day by something I was reading. It defined a sensitive person as a *sely-filled* person, and I immediately saw myself in that light. Have you not noticed, Alice, that the happiest and most intetesting people are those that are always thinking of others, not of themselves?"

Alice admitted that she had.

"Now," continued Mrs. Bradford, glancing at the clock, suppose, as a supplement to our chat, that you run home with me and get a bunch of sweet peas for your dinner-table. I intended bringing some with me, but was prevented from gathering them by several interruptions, and the flowers were crowded out of my mind."

Alice gladly accompanied her friend, and when George returned that evening and met his wife's beaming face, he exclaimed: "Why, Alice! what has happened? You look so pretty to-day."

And the young wife, pointing to the flowers, rejoined with her old-time archness: "Pretty? Why, certainly, I have been gathering sweet peas in Mrs. Bradford's garden."

Mrs. Bradford must have had an object in selecting those simple blossoms, for they smiled upon Alice for over a week without showing any signs of decay, and they did not spend their perfume in vain in that cottage home.

A few months later there was another lunch party at Mrs. Bradford's, and Alice, as before, was the first to leave. The hostess was gratified in listening to the following comments:

"How bright and pretty Alice Flint is again! She seems perfectly contented and happy."

"Yes, she and her husband understand each other better. They are a very congenial couple."

"She was the light of our party to-day, and she is so fond of you, Mrs. Bradford."

The hostess smiled sweetly. There was a song in her heart which gladdened her whole life, for she had experienced the truth of these words:

"A word spoken in due season, how good it is! As an ornament of fine gold, so is a wise reprover upon an obedient ear."

Sunday in the Country.

Religion that once was the animating power of country life has dwindled in its direct influence. The large, old parish churches that formerly were crowed with worshippers on the first day of the week are now seldom more than half filled. Even the union churches, in out-of-the-way parts, are often closed a portion of the year. The religous burden is borne largely by the women. The men, with some honorable exceptions, remain at home, divert themselves with the Sunday newspaper, and rest or recreate, if they do not drive fast horses and pay a visit to the tavern. This is not the fact in all country neighborhoods. There are places where the farmers assemble still in church or school house, sing and pray with fervor, and listen to preaching of the old style, doubtless to edification. But the defection of the men from the church in small country towns and neighborhoods, where there are no social ends to be served by church-going, is only the more marked because of these exceptions.

The secularizing of Sunday has gone mainly in these directions. It is still a rest day, except, perhaps, in "catching" weather during the haying season, when some man exceptionally careless of public opinion hauls a few loads to the barn. The plough and hoe remain in the furrow, the click of the moving machine is not heard, the farm-wagon is drawn under the shed, the horses rest in their stalls or are turned loose in the pasture; but the steps of the young men and old men do not as a rule turn toward the sanctuary. The village church in many places has become the property of women and children.

There is something very sad in all this; for it seems natural to be devout in the still fair places of the country, where the sky bends, and the stars burn, and the green hills stretch their arms, and the great trees lift their crowns into the sunlight. God is manifest here to the reverent thought; and, though hard labor of any kind has a deadening effect on the intellect, still these influences must steal in, and speak to the toiler in their own language. Has the great temple become so fraught with meaning and grandeur and purpose to the country mind that churchly rites and symbols of worship can be dispensed with? Would to God it were so! But too often a heaviness as of the clod rises up from the furrow, and hangs upon the soul, which only strong excitements can banish. Fatigue makes thought difficult. The terrible old religon took strong hold of the country nature because it roused, and seldom soothed. Its rewards and punishments appealed to those who knew all the ruthlessness as well as the beneficence of nature. Thus the strong, severe, religious type of farmer was evolved, lean and brown, tanned and seasoned by the sun and rain and wind, with bent knees and shoulders and

hard, knotty hands,—the man who could raise a psalm tune in the ploughing, and who comforted himself with the old Bible, and found a sanctuary and a refuge in its grimmest portions. There is something almost sublime in this craggy figure of the man who brought up his family in the unrelenting sternness of the old Mosaic dispensation. But he has passed away, and in the reaction from this tremendous power of Calvinism have come indifference, the state of uncertainity, dubiety, in which so many find themselves to-day. New conceptions have not yet taken the place of old ones, and the mind drifts and slides. The thought comes that we can practically live without religion. In our easy and pleasant days we can perhaps; but when the cyclone strikes us, then there is a calling upon God: "O God, if there be a God."

To the farmer who draws his nourishment more directly than other men from the soil, the life is still more than meat, and the body than raiment. Pitiful it is that the old church that once was the focus of his ancestors' hopes and fears and aspirations is now indifferent to him. How profoundly Jesus felt for the country people, drawing as He did most of his illustrations from country facts and things! It would seem that the religion of Jesus, simple, unvarnished, pure, if such could be preached in our village and neighborhood churches to-day, might strike to the country heart, dispel its indifference and languor, and awake it to a new life, of the soul; for the life without God is no life, a mere empty show. Until the spring of thought and feeling is touched by the divine, we dwell like those beings fabled to occupy an intermediate state, neither quick nor dead. The only true life is that which is vital with the throbbing pulses of love sent from the great Fountain of all love, and with apprehension of the presence of the universal Spirit in all shows. As the sunlight falls abroad the field, He is there, the divine Husbandman. His energy fills every blade of grass, every blowing leaf. Nature ceases to be dead matter. All its changes speak to us as they did to Jesus. Suggestions crowd upon the mind. We are no longer children of chance thrown here by blind fate, left to ourselves, the helpless sport of circumstances. We are part of the great plan, necessary to our Father, who ever works in and through our labor, uplifting and sanctifying it.

Jesus walked through the wheat on the Sabbath, and, his disciples being an-hungered, plucked the ears, and in sublime words He justified the act. He walks still through all our wheat fields, and bids us eat, but not the gross material food alone: He breaks the bread of life and presses the grape of the spiritual vine, that we may eat, drink, and rejoice at the higher banquets of the soul.—Christian Register.

Fashion's Latest Fads.

Flirtation fans are of black lace, with two oval openings in the pattern at the center through which pretty eyes, black, blue and brown, can look with telling effect.

Of various hats suggested for wearing is white rice straw with stiff straight brim, the front laden with pink roses, one amid them standing high on a long upright stem. A bow of ribbon, holding a single rose, is fastened under the brim to put on the wearer's hair.

A wife wears mourning for her husband's family as for her own. Mourning may be worn one or two years, according to personal preference. Tamise, Henrietta cloth and veiling are appropriate mourning materials. A princess dress may be worn at church.

Black corduroy is predicted as one of the fashionable materials for tailor-made gowns this season. It is a material that fits well, and one that will undoubtedly be popular, for although it may be made up very simply it will stand either fur or braid trimming with artistic results.

There are many neutral colors like castor, llama gray and noisette, a tea rose color. The new shade of dress goods in gray is called this season Ural, in recognition of the popularity of all Russian fashions. A blackish brown shade is called "Egypt." In honor of the World's Fair, the new red is called by the French color makers "Chicago." It is a deep, rich color, shading from cardinal, but almost as dark as seal brown.

Never were the silks more beautiful than they are this year. The designs each year generally seem like those of the year before, a little modified or very slightly changed. But this year everything seems new. One very pretty and quite original design is in black watered silk. Across the dark ground runs pink satin stripes about two inches apart; between them, placed close together, are two narrow satin stripes of pale green. Nothing could be more harmonious, and when made up and the colors artistically blended in the fine trimming nothing more stylish could be imagined.

"Polish your nails with your fingers," says a manicure. "The friction of the flesh and the little oil which exudes from the pores gets up quickly a healthy circulation beneath the nail, making it rosy, and fingers impart, besides, a better actual polish than the chamois rubber."

When, as sometimes happens, one is forced to wear an uncomfortably tight shoe, it may be of value to know that folded cloth wet in hot water laid over the pinching point will often speedily afford relief. Change the cloth several times to keep up the heat, which shortly stretches the shoe and shapes it to the foot.

A charming little conceit for the lady of many vails is a strip of heavy muslin or silk, lined with a dark color, and with ribbons fastened to both ends with which to tie the precious gauzes safely in. On the outside is a fancy design and the following jingle embroidered in old English letters:

"Many veils I've held for you;
Dotted, plain, of every hue."

You will be quite a la mode as to the wearing of veils if you throw economy to the winds and buy the full width, which you generally make two veils of, using it all for one, and ruffling what is left up around your neck, which has a soft, becoming effect and is a kind of connecting line between head and body, unlike the people who wear dark veils just coming to the chin, and making their heads look as if suspended in mid-air.

Fur this winter is to be treated exactly as though it were cloth, the most entire liberty being taken with it. Furriers have not the advantage of the wool weavers and workers in other lines of goods. Their material can be varied but little. Novelty must be secured by combination and by new treatment.

FOOLS hate knowledge.—Proverbs.

THE punishment of falsehood is to suspect all truth.—John Boyle O'Reilly.

HE who has conquered his own coward spirit has conquered the whole outside world.—Thos. Hughes.

BUT for some trouble and sorrow, we should never know half the good there is about us.—Dickens.

THE nobleness of life depends on its consistency, clearness of purpose, quiet and ceaseless energy.—Ruskin.

THE opportunity to do mischief is found a hundred times a day, and that of doing good once a year.—Voltaire.

THE fact of causing the existence of a human being is one of the most responsible actions in the range of human life.—John Stuart Mill.

SIMPLICITY of manner is the last attainment. Men are very long afraid of being natural, from the dread of being taken for ordinary.—Jeffrey.

MAN carries under his hat a private theater, wherein a greater drama is acted than is ever performed on the mimic stage, beginning and ending in eternity.—Carlyle.

THE mother's yearning, that completest type of the life in another life which is the essence of real human love, feels the presence of the cherished child even in the base, degraded man.—George Eliot.

TO make a happy quotation is a thing not easily to be done. The art requires more delicacy in the practice than those conceive who can see nothing more in a quotation than an extract. Whenever we would prepare the mind for a forcible appeal, an opening quotation is a symphony, preluding on the chords whose tones we are about to harmonize.—D'Israeli.

IT has passed into a scornful proverb that it needs good optics to see what is not to be seen; and yet I should bn inclined to say that the first essential of a good traveler was to be gifted with eyesight of precisely that kind. All his senses should be as delicate as eyes; and, above all, he should be able to see with the fine eye of imagination, compared with which all the other organs with which the mind grasps and the memory holds are as clumsy as thumbs.—James Russell Lowell.

WHEN anything is demanded of you that you cannot do, refuse positively and leave no loopholes for false hopes; on the other hand, grant at once whatever you are willing to bestow; your promp refusal will make you friends as well as your prompt benefit, and your character will stand the higher; for it is hard to say whether a promise forgotten, a hope deceived, does not make us more enemies than a favor granted brings us friends.—Balzac.

YOUNG FOLKS' COLUMN.

An Unlucky Find.

Written for the RURAL PRESS by CAROLINE E. SANDERS.

"You came not into your place by accident, it was the very place God meant for you," said Morris Edgeley's Sunday school teacher to him one day after the lesson was over and he was having a little talk with the boys. "If so early in life you have crosses to bear they are meant, if met in the right spirit, to bring out some good traits in your character or to repress your faults, so take heart and meet them bravely."

This was said in answer to a remark from Morris that "it could not be difficult to be good when everything was pleasant in life." These few words from his teacher somehow struck home with him, he thought of them afterward and they might have exerted a lasting influence from that time had it not been for an unlucky find.

But a few years before Mr. and Mrs. Edgeley with their two young children, Morris and Helen, had been living in affluence with every advantage that money could procure. Then their father died suddenly and all was changed. Morris was recalled from the school where he was making a fine record, to help support his mother and sister. He did not meet his fate bravely but with a discontented, rebellious spirit, ever dwelling upon "what might have been." Only the day before he had said to his sister, "Suppose we shall have no Christmas this year, wish I could find some money to buy mamma and you some nice presents."

"Oh Morris, that is a wicked wish," said his sister, "for you would only be finding what some one else had lost—you did not think that, did you?"

He murmured something by way of reply about "their being able to lose it, perhaps."

It appears as if an earnest desire of this nature is sometimes granted to show us how incapable we are of directing our own affairs.

The next morning when Morris reached the manufactory where he was employed the janitor was just sweeping out the private office. He was an old man and had not noticed what Morris' sharp eyes detected in an instant, a bank note among the rubbish.

"There, you have not swept that corner clean," he called to the man in a jesting tone. He turned away to see if such was the case and Morris' object was accomplished. He snatched up the bill and transferred it to his own pocket. There was no opportunity to examine it until he reached home; he then found it was a new-looking $20 bill. Morris fairly trembled with excitement as he looked at it, while visions of of all the nice things he would buy with it flitted through his mind. But day after day passed and he somehow could not make up his mind to spend it. He had seen a nice cloak that would just fit Helen, and which she needed badly, and he decided to get that and a pair of warm gloves for his mother, and there would probably be enough left to buy a new hat for himself; but the one puzzling thought came up—what explanation can I make for having so much money?

He well knew that his mother would not allow him to it keep if she knew the truth, and he would determine to lie about it so far as to say he had tried to find the owner, yet he knew he could not deceive her, she understood him too well. He could have spent it all on himself and his own pleasure without finding it necessary to give an account to any one, but he was not a selfish nature and could imagine no enjoyment in that. Sometimes it appeared as if the bank note was burning a hole in his pocket and he would wish he had never seen it and felt like throwing it in the fire. With all their poverty he had never been so unhappy before.

So the time passed on to the end of the month, when he always went to the office to receive his salary. As he entered he felt ashamed to look his employer in the face, and hardly felt surprised when in a stern voice he said to him,

"I do not know how much is due you until I learn the value of that note I saw you pick up out there. When that is settled I shall not need you any longer."

Morris felt at that moment he richly deserved hanging, but oh what a comfort it was to be able to take the note out of his pocket-book and hand it to the gentleman. As he did so he could only say in a trembling voice,

"I couldn't spend it, I do not think I ever could have spent it."

Much to Morris' astonishment his employer laughed merrily as he examined the bill and then said, "Well Morris, by having a little conscience in the matter you have probably saved yourself from getting into serious trouble as you might have done if you had attempted to pass this bill, for it is counterfeit."

The nervous strain had been too great for the boy and he burst into tears. The gentleman could not but be touched by his grief, and understanding the struggle he passed through between good and evil, consoled him by saying, "Never mind, Morris, I think this will be a lesson that you will not soon forget, and you may be thankful you were not tempted beyond your strength. I will not expose you or discharge you, but I cannot raise your salary, as I had intended doing this month, until you prove that your principles have become fixed."

The truth of his teacher's words were often brought to Morris' mind in after years, for he accepted this trial bravely and in the right spirit; found himself able to repress his faults and became a noble, good man.

It Paid.

When Aunt Frances was a little girl, she did not like to mind quickly. When told to do any little task, she would say, "In a minute," or "By and by I will do it."

Aunt Frances's mamma knew this never would do. She talked often and kindly to her little girl of her fault. She told her she must drive old Mrs. Wait-a-Minute out of her house.

One Monday morning, Aunt Frances's mamma was washing. It was in the summer-time, and the hallway door was wide open. When she found her soap-basin was empty, she told her little girl to run to the soap-barrel under the cellar stairs and fill the basin.

Aunt Frances was reading her Sunday-school book, and she didn't want to leave the story. "In a minute, mamma," was on her lips, but she did not let the words come. She thought, "I promised mamma I would fight against the fault, and I will."

In half a minute she was down the hallway stairs on her mamma's errand.

She found the lid of the soap-barrel pushed half-way off, and when she dipped down to fill the basin, something in the barrel went "squawk, squawk." She looked in, and there, with just her head and neck out of the soap, was Aunt Frances's pet hen, Mabel.

She had hopped into the barrel hoping to find a good breakfast. She sank into the thick soap as though it had been quicksand. It glued down her wings so she could not fly out. In another minute her head would have gone under the soap, then Aunt Frances would have had no pet Mabel.

"I am so glad that I did not wait even one little minute, mamma," she said, drying the drenched feathers of her shivering hen, after they had been well washed and rinsed.

"Minding quick saved Mabel's life," her mamma answered. "You will find it pays all the way along to keep old Mrs. Wait-a-Minute out of your house."—Portland Transcript.

THERE is a French saying that "it is women who make the morals of a country." That is not true, it cannot be true, so long as men alone make the laws. For the law is a mighty teacher of morality or immorality, justice or injustice.—Mrs. Josephine E. Butler.

ROYAL

BAKING POWDER

Absolutely Pure.

A cream of tartar baking powder Highest of all in leavening strength.—*Latest U. S. Government Food Report.*

AGRICULTURAL NOTES.

CALIFORNIA.

Butte.

A LARGE DRYING GROUND.—Biggs *Argus:* Manager G. F. Ditzler, for Hatch & Rock's orchards on Rio Bonito, is now busily engaged leveling and laying out 100 acres on a redland knoll just east of town for their immense fruit-drying works. The ground will be made as level as possible and every convenience for drying will be made. Hand-car tracks will be laid all through the grounds for carrying trays of cut fruit, etc. This drying-ground will be arranged similar to the same company's drying-grounds at Suisun, which hitherto was known as the largest and best arranged in the State.

ORANGE SALE.—Oroville *Mercury*: Jo. Gardella has sold his orange crop on the trees to the California Fruit Company at $1.40 per box. He has about one acre and a half in bearing, and the majority of the trees are young, but he will get about 500 boxes of splendid oranges.

Del Norte.

SMITH RIVER CREAMERY. — Crescent City *Record:* We are pleased to announce that a creamery will be erected in Smith River valley. The gentlemen who are interested in it are our leading citizens and dairymen. It will be only a matter of time until Del Norte butter will lead in the markets of San Francisco. It has already got the name of being one of the leading counties of the State for producing a superior article of dairy produce, and with the aid of a creamery will advance to the front. Cheese will also be manufactured for which there will also be a demand. The creamery will be centrally located in the valley and will be accessible to a large number of the dairies. There are 1100 cows within three miles of where the creamery will be built, on the north side of Smith river. The latest improved machinery will be had, and the management of the creamery will be entirely in the hands of and under the control of the local owners. The building will be a credit to the county. Another should be erected in Elk valley to give those in that section an opportunity to have a chance of receiving the benefits of a creamery.

El Dorado.

WILD FRUIT.—El Dorado *Republican:* S. L. Watkins is meeting with good success gathering botanical specimens for the World's Fair. It is quite probable he will obtain over 500 specimens, including the wild fruits, of which there are upward of 60 varieties. Wild fruits, generally speaking, are very highly colored, and will show to great advantage when preserved in salicylic acid. This collection of wild fruits will be of great value, as it will show the many climates that exist in the upper Sierras. Where each variety of wild fruit reaches its greatest perfection, varieties of common fruits will also reach their highest growth. Thus the various wild plums will show to a certainty that all the cultivated varieties, including the prunes, will do well. Mr. E. H. Schaeffle, who has traveled extensively all over the northern and central parts of the State, reports that in Calaveras county, at a very extreme height, the varieties of the French prune yield better and are far superior to valley and foothill fruit. White strawberries of the alpine variety have been discovered, and also yellow dewberries. Among the California wild strawberries are several very superior varieties. California botanists accredit California with only two varieties of "fragaria" (wild strawberries), while in reality there are possibly 40 or 50 kinds existing in these mountains.

Nevada.

STOCK IN GOOD CONDITION.—Truckee *Republican*: Some of the stockmen of the Truckee basin are leaving the mountains this week, and nearly all will take their departure next week. The feed has been good in the mountains this summer, and the stock is in fine condition.

Orange.

A BEET-SUGAR FACTORY ASSURED.—Anaheim *Gazette*: Mr. Capitain informs us that the number of acres subscribed for the cooperative beet-sugar factory reached 3204—204 more than enough. Deeds to 1700 acres have already been secured, and everything is going on satisfactorily. This insures the erection of the refinery.

A LARGE AREA TO BE IRRIGATED.—*Gazette*: The waters of the Santiago creek will shortly flow out upon the San Joaquin ranch, which will be irrigated from one end to the other and pass into orchard cultivation. Men and teams are at work excavating a ditch which will be 13 miles long and circle around the base of the San Joaquin hills. The Santiago creek will be dammed up in the canyon narrows, and the water will be led by means of a system of ditches to all parts of the ranch. The dam will be 60 feet wide at the base, 120 feet high and 365 feet long, and will be built of masonry in a substantial manner. Twenty thousand acres of land will be brought under irrigation.

VINEYARD NOTES.—Santa Ana *Blade:* We are informed that the vineyards on the gravel belt, in and about Orange, are yielding well, and that the county has taken on the old busy appearance of some years ago when wine and raisin-making were leading industries of this valley. Most of the raisin-grapes have been gathered and spread for drying, and in some instances are taken up and are now in the sweatbox. Of course the yield is limited in comparison with old vines, yet there will be quite a revenue to the valley this season in the manufacture of raisins alone, to say nothing of the wine grapes. We will name a few who have ventured the experiment of raising grapes since the deadly work of the vine disease: Thos. Walker has ten acres in raisin-grapes; the vines are three years old and will yield five tons to the acre. B. M. Sitton also has ten acres in the same class of vines which are two years old. They will yield well. J. M. Copeland has five acres in two-year-old vines which look well and will give a fine yield. Henry Hockemeyer also has a small vineyard that looks well and will yield splendidly. George Bennett has ten acres, set out last spring, and has a stand of 89 per cent. This vineyard is looking exceptionally well, and promises a large revenue for the future. The Hewes ranch has 25 acres, six months old, with a stand of 95 per cent, which is undoubtedly one of the best vineyards of its age in the county. W. G. McPherson also has 15 acres in the same class of vines, 18 months old, which are doing well. Mr. Van Dorn also has five acres, six months old, which are doing well, and five acres, 18 months old, which are doing nicely. Mr. Sanders also has a small vineyard which is doing well.

Placer.

DRILLING IN WHEAT. — Auburn *Herald:* Nearly a year ago the *Herald*, under the head of "Drilling in Wheat," published the following items: "L. Jarvis, a prominent farmer of near Lincoln was in Auburn on business last Tuesday. He tells us that he is planting his wheat this year with a drill, and that in between 200 and 300 acres already planted he has saved at least $50 in seed. He hopes also to reap a better crop, and if he does, the advantage of the drill over the broadcast method will be demonstrated, and to his enterprise in making the experiment the farmers of the country will be indebted." Mr. Jarvis was in Auburn recently, and he did us the favor to call and inform us of the result of his experience. As the above item shows, he saved from 15 to 20 cents an acre in seed, and his crop, now harvested and threshed, turned out nine sacks to the acre, while the average crop of his neighbors on similar land, planted by the old broadcast method, was about six sacks to the acre.

San Benito.

LATE BARLEY AT SAN JUAN.—Cor. Hollister *Advance:* Threshing will be finished this week. Johnny Bull, whom we announced last April as planting 150 acres to barley at that unusual late date, has just harvested his crop, and the result proves that Mr. James is more than the average prophet, for his expectations at that time have been realized. He has just harvested 36 sacks of plump barley to the acre.

San Diego.

OLIVE TREES ALONG HIGHWAYS.—San Diego *Union*: The planting of olive trees along the highways and wherever a property-owner has land that can't be put to any practical use, is urged by the leading horticulturists of Southern California. The olive tree flourishes with little care, and will grow where other trees will not. It will bear fruit in but a few years, and the fruit always commands a good price. Then, too, the olive tree will live and bear abundantly for many, many years. It is always in full foliage, and is one of the handsomest and freshest-looking fruit trees we have in this region. It is an ornament to any yard and lawn. Its systematic and general planting along the country roads would relieve them from their most disagreeable characteristic—the absence of shade—and add considerably to the income of property-owners along the public highways so improved.

Sonoma.

FRUIT DRYING ON A LARGE SCALE.—Santa Rosa *Democrat*: Everything is life and activity at the Crawford fruit drier. Thirty men, women, boys and girls are at present employed, and the business way in which they handle the fruit would almost make the beholder forget it was ever made to eat. Over 1400 cases of apples have already been put up. The prune pack will amount to 100 tons. Six thousand boxes of Bartlett pears have been dried. That is the largest pack of pears Mr. Crawford has ever before made. Formerly, he says, from five to ten boxes were sufficient to supply the demand, but this season the market took a boom and is still booming in that line. He is unable to account for this freak of the market, for such he thinks the unlimited demand for pears may be termed.

Tulare.

LARGE YIELD OF PRUNES.—Visalia *Delta:* Several persons from Visalia and elsewhere went to the Briggs orchard to witness the harvesting of the crop of some nine-year-old prune trees, and those who were present will sign an affidavit setting forth the facts. After arriving at the orchard three trees of the French-prune variety, near together, were selected. Some of the fruit had fallen and was gathered in boxes, and then the trees were shaken, the fruit cleaned of twigs and leaves and placed in boxes to be weighed. The first tree shaken yielded 812 pounds, but a considerable amount was left on the tree. The next tree bore 984 pounds and the third 1017. One large limb of the last tree, heavily laden with fruit, had been taken away. The total product of the three harvested amounted to 2813 pounds, and the average was 937.66 pounds. With 64 trees to the acre this would give a yield of 60 910 pounds, or 30½ tons. As 2.65 pounds of fresh prunes are required to make one pound dried, one acre would produce 23,362 pounds ready for market, and at 11 cents per pound, the present selling price, the gross value of the yield of a single acre would reach the enormous sum of $2569.-82; at 2½ cents per pound on the ground, for which they could be sold to-day, the price of an acre's product would be $1522.75. In the Briggs orchard there are 12 acres of prune trees of different ages, and several experienced orchardists estimate the average yield at 600 pounds per tree. There are 64 trees to each acre, which would make 38,400 pounds to the acre, the value, which at 2½ cents per pound on the ground—the price at which prunes are now selling here—would be $960 per acre, a net profit (after allowing for every possible expense and loss) of more than $900 per acre. If dried at the orchard and sold, the value of the crop per acre would be $1593.90, and for the 12 acres the enormous sum of $19,126.80 would be realized.

Yolo.

GRAPE SHIPMENTS. — Woodland *Democrat*: George Carty, agent of the Earl Fruit Company, is kept busy superintending the shipment of two carloads of grapes from this place to Chicago each week. The Wyckoff estate, H. C. Howard, Harlan Bros., Wm. McGriff, R. Fitz, J. A. Redden, J. Fuchs, H. S. Deaner and H. Lusk have sold their crops to this company. Thirty girls are now employed by Mr. Carty, cutting and packing the grapes. The Earl Fruit Company formerly employed Chinese labor, but this year it is hiring white help only. This example is worthy of emulation. The shipping season will continue for three weeks, during which time ten carloads of grapes will be forwarded to the eastern markets.

RECEIPTS FROM FRUIT SALES.—Vacaville *Reporter*: On the 30th day of September, 1891, the receipts for fruit at the Bank of Vacaville aggregated $408,000. On the 30th day of September, 1892, the receipts amounted to $588,000. The difference of $180,000 represents the greater amount of money received by the fruit men this year. Added to the gross receipts, the amount paid for Vacaville fruit products will, at the present time, aggregate over $1,000,000. Compared with other communities, we believe that Vacaville is at present one of the most prosperous in the State. The deposits in the bank are larger than they have been at any previous time, and the condition of every individual is one of satisfaction, not only by reason of present circumstances, but also by reason of future possibilities.

ARIZONA.

CATTLE NOTES.—Silver City, N. M., *Sentinel*: The fact cannot longer be disguised that the cattle interests of Arizona are in a very deplorable condition. The summer rains have been confined to narrow limits and the broad ranges have derived but little benefit. There are a few favored localities where feed is abundant, but in general the condition is very bad. The stockmen—those who survive the present drouth—will profit by this severe lesson, and will not only supplement the uncertain ranges by fields of alfalfa, but will discover that it requires as much to feed a scrub animal as it does one worth double its price. A better grade of cattle will be placed upon the ranges, and while their number will be less the calamity of overstocking will be avoided. As an industry it will bring far more satisfactory returns and place it upon a footing wherein the element of uncertainty will be entirely eliminated. Mere size in cattle is becoming as objectionable to-day as mere size in hogs already is. The heavy-weight hog was formerly the high-priced hog, and the larger the size the higher the price per pound. But in these days the buyer of pork is after meat, not lard, and so the meaty rather than the lardy hog is what the market wants. The same condition exists regarding cattle. Kerosene went into the tallow business; tallow is not the valuable article it was in the days of the candle. There is also a more fastidious taste abroad in the land regarding beef. Certain parts of the carcass are relatively more highly prized than formerly and therefore command higher prices; and it is also found that the young, quick-maturing animal yields up the sweetest, juiciest cuts. The result of taste and discovery has been to increase the price of the well-made animal. Size of itself is not objectionable, but size alone is not enough to command the highest price. Quality, not quantity, is the pathway that cattle must travel to reach the goal of maximum price. Form, development, early maturity are now the prizetakers in all markets.

OREGON.

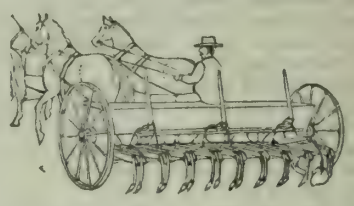
MONGOLIAN PHEASANTS. — Eugene *Register:* Mongolian pheasants are being killed by the hundred in Lane county and few people can be found who have not enjoyed a mess of these fine birds. They are very plentiful, though they have been introduced here but a few years and have been killed right along regardless of the law enacted to protect them. They increase rapidly, and if properly protected would soon furnish excellent sport for hunters during the open season.

LARGE YIELD OF BEANS.—Salem *Statesman:* D. D. Prettyman, near Turner, received 106 Prolific tree-beans and planted them, and this year raised from 105 of them 2488 pods, which contained 10,000 well-developed beans and 334 imperfect ones, they being stung by some insect. One stalk had on it 114 pods. This he sent East as a world-beater.

HOPS IN BENTON COUNTY.—Corvallis *Gazette:* It is a fact not universally known that Benton county has several large hopyards in the immediate vicinity of Philomath. While the yield this season is not up to the average, the hops are free from lice compared with other sections of the State, a fact that will tend to give the Benton county product a good rating in the market. These results were attained by careful attention and judicious spraying. Many hopgrowers throughout the State gathered their crop before the hops had attained their full growth on account of the lice, while on the contrary, William Zimmerman and Mr. Hartless, the Philomath hopgrowers, permitted the buds to mature before picking, as they had nothing to fear from the ravages of pests, and are consequently enabled to put a prime article on the market. Mr. Zimmerman is the heaviest hopgrower in Benton county, and has four yards. At one time this season he had 200 pickers employed, while, at the same time, Mr. Hartless had about 70 in his yard. About 1700 boxes was the product of the Philomath hopyards for this season, which fell considerably short of the yield last year.

GORHAM

SEEDERS and CULTIVATORS.



Cuts 6 to 14 feet;
Employs 2 to 6 Horses,
According to size.

Seeds 8 to 40 Acres per day
And weighs 580 to 1400 pounds,
According to size.

Costs; according to size—
With Cultivator,
$100 to $175.
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$75 to $131,25.

Cultivator Raised,
In Sections.
No heavy lift.

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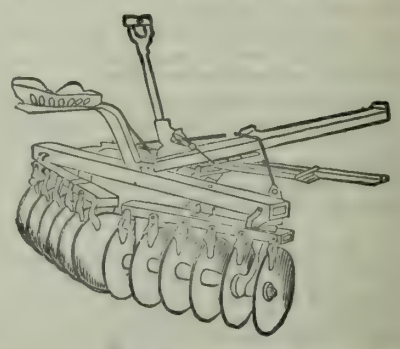
DISC HARROWS.



4 to 12 feet wide—2 to 4 horses.
8 to 24 Discs—16 and 18-in.
300 to 745 lbs.—$37.50 to $90.00.

With or without Seeders.
Seeders cost extra.

Insures
Perfect cultivation
In Orchard, Vineyard
And Field Work.

Inquire further.
It will pay you.

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Domestic Economy.

Putting up Lunching.

Far better than a tin utensil is a basket divided into compartments with thin boards or well-fitting pieces of pasteboard, so that it can be packed securely. With a basket there is always a circulation of air and the food does not sweat. It is best to wrap everything separately in papers, and the whole contents should be covered with a napkin, which must be washed before it is used a second time in hot weather. A place also should be fitted up or reserved for a knife, fork and spoon.

Wives should make the basket as attractive as possible. and to do this must not put in too much of a mixture.

For a few hints as to the contents, the following will suffice:

HOW TO CARRY DRINKS.

Instead of carrying coffee, or tea, or soup or other beverages directly in tin, as in the ordinary method, they should be put into a clean and well-scalded bottle and so conveyed in a basket.

Nearly all fluids when in tin, even for a short time, acquire a metallic taste.

If milk is to be used it must be sterilized in the bottle. To do this put the milk in the bottle, set it in water, heat it and let it steam for an hour, then cork it tight. This may be done the night before and so have it cool on the following day, and if not uncorked will keep perfectly sweet for at least one day, even though the weather is very warm.

For those who have been ill and are about to commence work again milk is an excellent diet and makes the best drink, Coffee and tea should be corked while hot. Many are very fond of soups and broths, even when cold. These should have been made the day before and allowed to get cool, so that all fat can be removed from the surface; then, if necessary, they may be reheated and sterilized in the same manner as the milk.

Of the solid contents sandwiches are usually the basis. These, instead of being made with slices of meat, so that in eating the meat pulls out from between the bread, should contain chopped meat of some form instead. These are more dainty and easier digested. Chicken, corned beef, ham, or even plain beef may be used for this purpose. For many "deviled" meats and the addition of a little mustard makes them more palatable.

Besides sandwiches, cold meats in slices, or parts of a chicken or turkey, may be used with advantage.

Fish, except possibly salt herring, should never be used, though occasionally, for those who can afford it, sandwiches made with anchovy paste are quite savory and tend to create an appetite.

Eggs should be boiled moderately hard and the shells left on. With these, a little shaker box or saltcellar should contain salt and pepper mixed. I have often seen fried eggs used, but this is a bad plan, as they are apt to break in pieces.

Few vegetables can be utilized in such a basket, as they are insipid when cold and generally too moist to be carried. Cold potatoes are not very appetizing, and with the exception of Saratoga chips, had best be omitted. Baked beans go well in a cup.

Nothing which is fermented, or which has a tendency to ferment, should be used in a lunch basket; so bread made of yeast is not always good, as it readily sours. It is better to use soda or baking powder biscuits, though bread pudding is nourishing and digestible.

Instead of plain bread, graham biscuits or corn bread or crackers are useful. So also pickles in vinegar should never go in, nor pickled meats, as these things are apt to make the rest turn sour; nor salads, nor anything that is very soft, like juicy pies.

Puddings, such as rice or custard or bread pudding, by making them in cups carry well and are both appetizing and nourishing.

Cakes, such as cookies or ginger-snaps or sponge cake, are also useful, but not moist, highly flavored, sugared and frosted cake should go in. Firm jellies may be carried in a small glass or cup and eaten with a spoon, so also a baked apple. Firm fruits, such as apples or peaches, make the whole tasteful to the eater.

EGG LEMONADE.—Separate four eggs, beat first the whites, then add the yolks and beat lightly; dissolve one cup of sugar in a pint of cold water, add to it the juice of four lemons, and then a small quantity of cracked ice; stir the eggs carefully into this and use at once.

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DRY GRAN. SUGAR med. fine, 100 lbs.	$5.40
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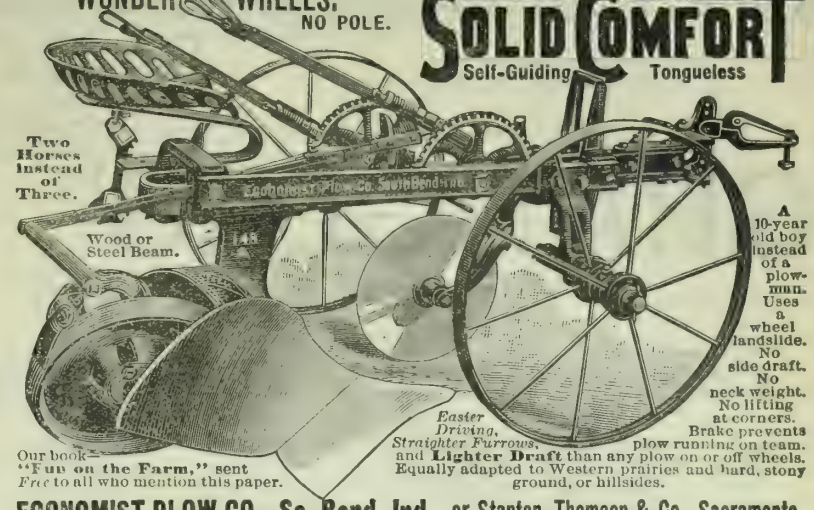

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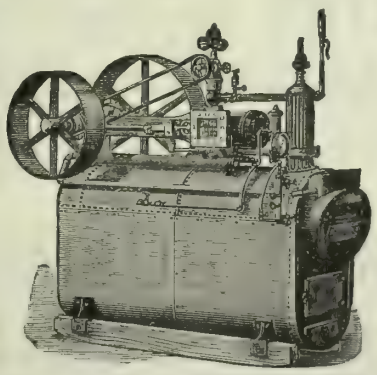

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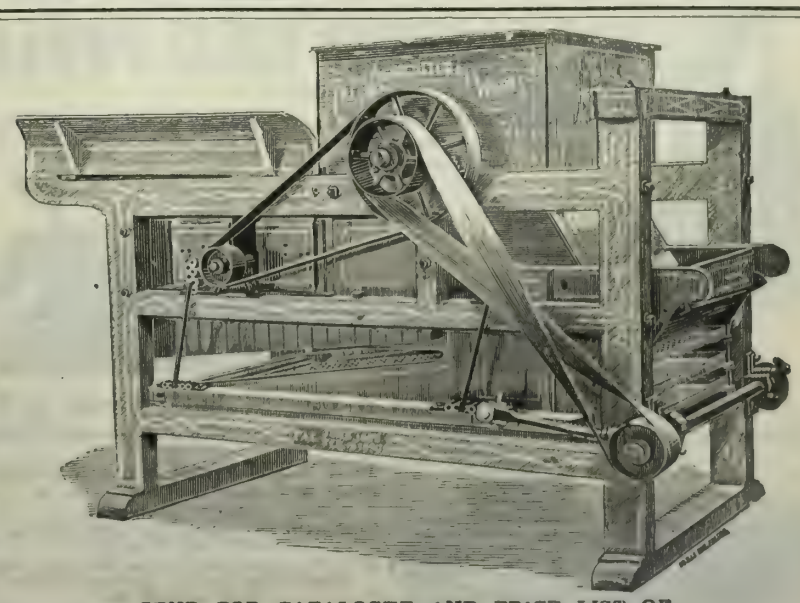

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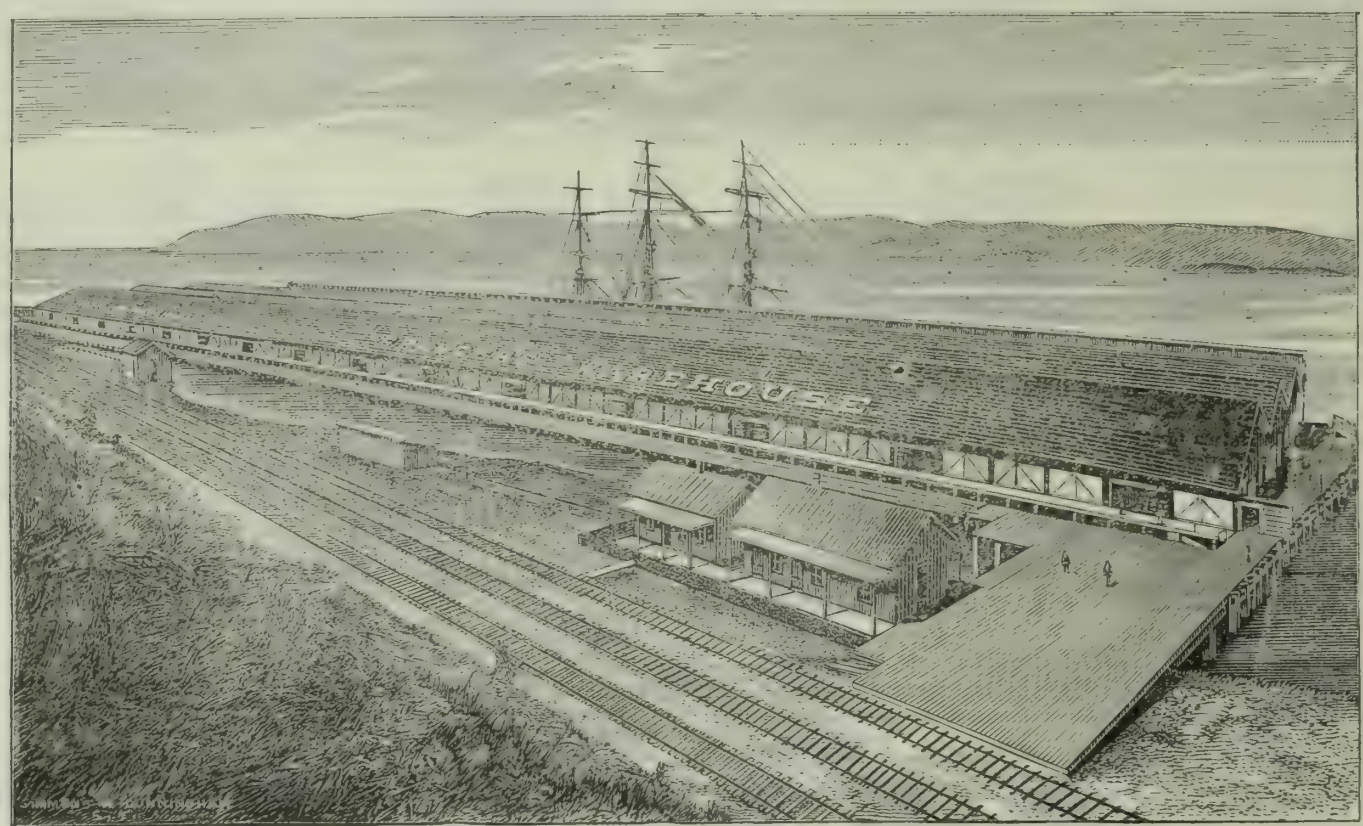

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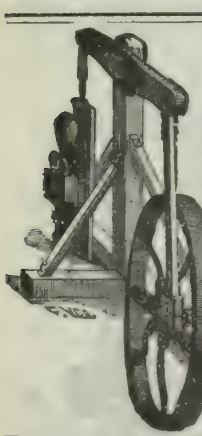

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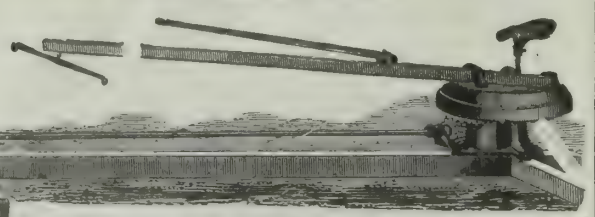

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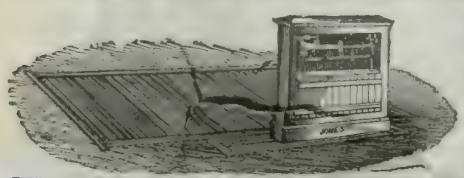

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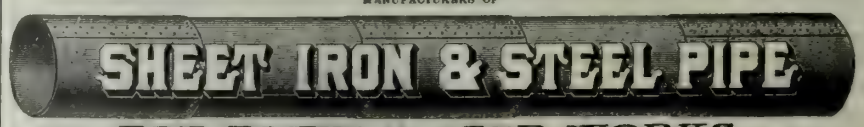

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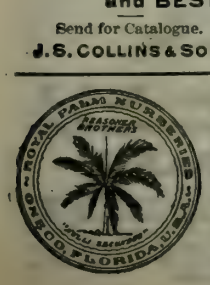

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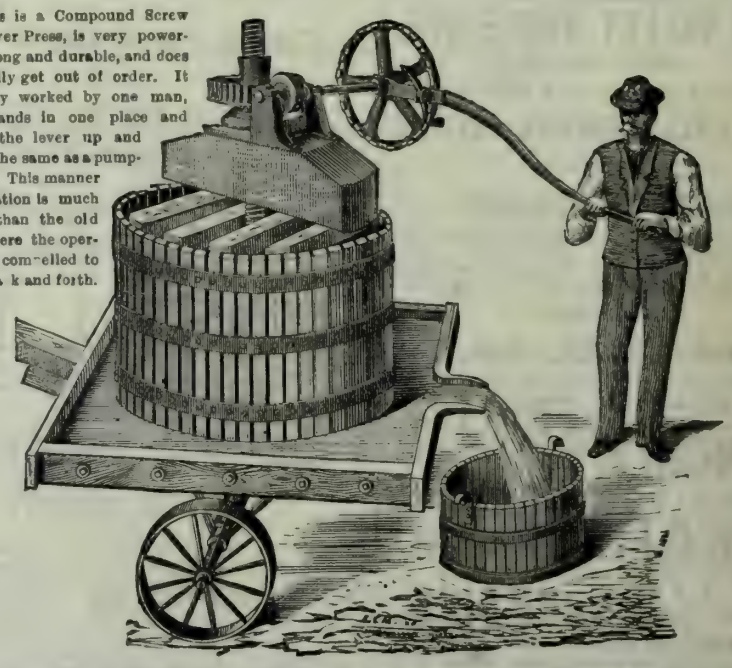

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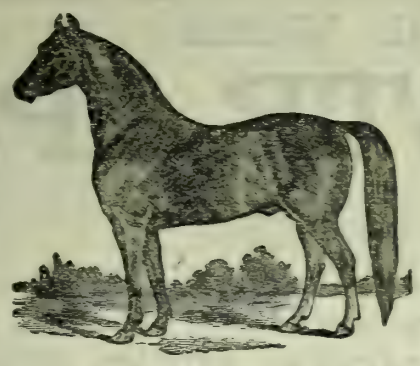

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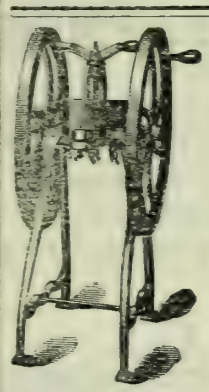

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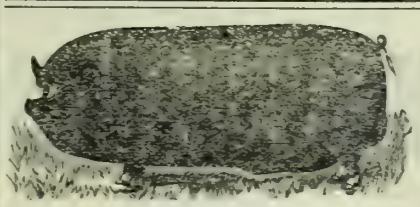

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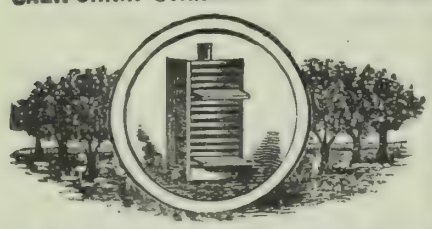

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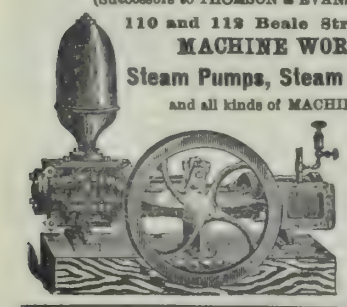

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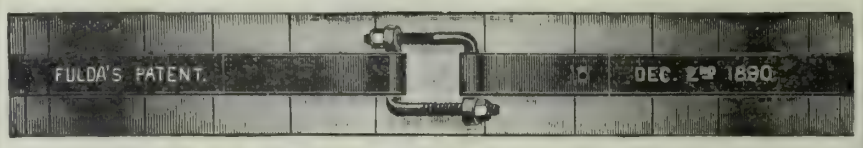

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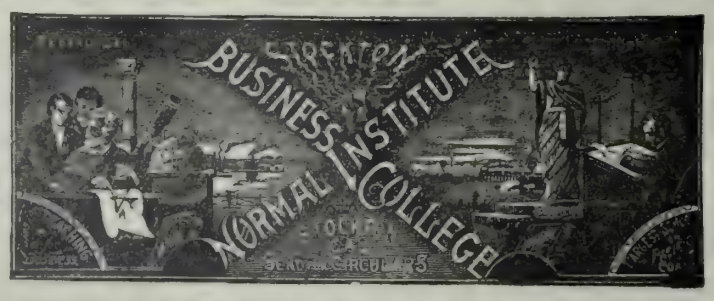

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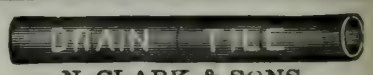

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S. F. Market Report

Market Review.

SAN FRANCISCO, Oct. 5, 1892.

The local money market continues to tend toward greater ease, with more funds offering. The uneasy and uncertain feeling which has been an important factor in creating more or less stringency, appears to be giving way to a feeling of confidence that the worst has been passed. This feeling is not confined to this coast alone, for it is being felt at the East and also abroad; but its full force will hardly be felt in Europe until some positive action is taken pointing toward restoring silver to the position formerly held. Our latest advices from London indicate a growing sentiment for more favorable legislation toward the metal. With higher prices for silver, the demand markets of Europe will not be flooded by the farm product of silver-using countries, to the great injury of gold-using countries. With higher prices—which would follow higher prices for silver—for farm products, business activity and more prosperous times may be assured. This position is beginning to be accepted by London *Money* and other leading European financial journals.

The wheat markets of the world have gained several points the past week, with strong tone at the close. The strength of the markets is but the natural result of more light being thrown on the statistical position of wheat the world over; and with this knowledge and a growing conviction that, for the present at least, the market value of silver will not depreciate further, speculators and large handlers of the cereal are more inclined to take hold of the market for a bull campaign. That they are justified in this course must be admitted by even pronounced bears, who give to the subject a few moments of unbiased consideration. The consumption of wheat has increased from about 4½ bushels per year per capita to over 7 bushels per capita. The increased consumption is largely due to the lower prices which have ruled throughout the world for wheat. The increase in production has not kept pace with the increased consumption, and consequently the wheat reserve in all countries has steadily decreased, until to-day they are, when compared with requirements, about exhausted. To be sure the small reserves have not held the importance they did over a decade ago, owing to time and space being annihilated by steam and electricity, yet with consumption steadily gaining on the production, they are beginning to be a strong factor, and promise soon to again hold the key to the markets of the world.

The latest reliable English review of the general situation of wheat gives the following estimated comparison of carryover on August 1st in America, Canada, United States, France, Belgium, Germany, Holland, Russian ports and afloat, 122,800,000 bushels in 1892, against 109,700,000 bushels in 1891. The carryover in Italy, Spain, Portugal, India, Switzerland, Greece and southeastern Europe was from light to very light in 1892, against an average to heavy in 1891. The crop this year is officially reported on September 1st by the United States, Canada, India, France, Austria, Hungary and Italy at 1,366,000,000 bushels this year, against an actual yield of 1,468,000,000 bushels in 1891. The crop in 1892 of the other countries is unofficially estimated at 749,000,000 bushels, against an actual outturn of 690,000,000 bushels in 1891. The above showing, which is the accepted from the bear point of view, must be conceded to be in favor of wheatholders.

The local wheat market, the past week, held firm with buyers advancing their bids. Farmers have not been disposed to offer on the market—holding for better prices—and consequently an advance was paid in the country on bids made or quotations put out in this city. Even an advance of from 1¼ to 2½ cents per cental, bid in the country over city quotations, failed, so we are informed, in drawing out much wheat. It is the prevailing opinion that there is a large short interest on the market which, if proved to be correct, will naturally result in better prices when those who sold short try to fill.

Barley, the past week, held strong for choice to gilt-edged bright grades for malting purposes. The call comes chiefly for shipping. It now looks as if much better prices will obtain for bright grades before the season passes. Feed barley held fairly steady the past week. Receipts, although quite free, were not up to the average of the preceding week's in this season. The consumption for feed continues to be very heavy. The more general introduction of rolling or crushing machinery for turning out rolled barley cuts off quite a trade heretofore enjoyed by the larger cities; and while seemingly lessening the demand, in reality creates an enlarged feeding of barley.

Oats have exhibited a fair degree of strength, and this, too, in the face of free receipts from California coast ports and also from Oregon and Washington. The demand has been fair, but the low prices bid cause many consignees to store, although sales have been made at concessions on asking prices for consignments so as to save expenses. The crop up north is now generally conceded to be below that harvested last year.

Corn and also rye have been featureless. Trading appears to have been confined largely, if not entirely, to near-by home requirements.

Ground feed has met with an enlarged demand, which caused a strong market to obtain for bran and middlings, and a firm tone for other millstuff. Hay has done better. The bringing of stock from mountain ranges to the valleys has created a larger demand, which has been added to still further by natural pasture growing scarcer.

Butter has been advanced under a strong holding and a fair demand. Receipts have been large, which is accepted as proof that some of the dairies held back supplies. The sultry weather has been somewhat against solid and pickled, which quite naturally enhanced the value of choice to gilt-edged fresh in squares and rolls. The high prices ruling in the central States for gilt-edged creamery is in favor of the California butter interest.

The advance in cheese has drawn to us more liberal supplies, and with more sellers in the market buyers became offish, which resulted in a weaker tone. Receipts overland have been quite free, as have receipts from home sources.

Eggs have shaded off slightly under heavy receipts and an offish demand. Some sellers claim that the weakening tendency will tend to cut off receipts from the East, which will cause better prices later on.

Garden truck has been irregularly weak under free supplies and an offish demand. Onions have come in quite freely, supplying the demand. A fair shipping call has ruled. Potatoes, after advancing slightly under a free shipping demand, fell back towards the close. Receipts have been exceptionally heavy.

Fresh fruit has been irregular the past week, with only the more choice tempting buyers to bid up. The review given in last week's RURAL covers this week's information. Wine grapes shaded off under heavy receipts and a light demand. The majority of wine manufacturers were not, and even now are not, prepared to take care of grapes, and consequently selling concessions were in order, owing to the poor condition of the large bulk of consignments. It is claimed that the prices before published by us are still paid in the country.

The market for all kinds of choice to gilt-edged dried fruits is firm, but with one or two exceptions all grades below good are weak and in buyers' favor. The demand is chiefly for shipping to the East. There is a call from up north for the better grades of dried apples, which is proof positive of a short crop in Oregon and Washington.

Raisins have met with a good inquiry. It is claimed that the raisin combine prices are being fully maintained. It is feared that we will have early rains, which will be apt to materially reduce the pack. While all indications point to early and heavy rains, yet on this coast there is nothing so certain as the uncertainty of the weather.

Nuts are coming in moderately. Heavy rates are reported in the nut-growing sections. The purchases were made for shipping eastward.

Hops have come in quite freely. The market has made a slight advance in sympathy with higher prices at the East, and also abroad. It is claimed that 20 cents is now freely bid, while for gilt-edged goods a slight advance is offered. The crop abroad and also at the East, it is now said, did not turn out as large as had been estimated.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	Oct.	Nov.	Dec.	Jan.	Feb.
Thursday	6s00d½	6s01½d	6s02½d	6s03½d	6s04½d
Friday	5s11½d	6s01½d	6s02½d	6s03½d	6s04 d
Saturday	5s11 d	6s00d¾	6s02 d	6s03 d	6s04½d
Monday	5s11¾d	6s01 d	6s02½d	6s03½d	6s04 d
Tuesday	6s00 d	6s01½d	6s02½d	6s03½d	6s04 d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. O.	P. S.	N. D.	Market for P. S.
Thursday	32s6d	33s0d	32s6d	Steady.
Friday	32s6d	33s0d	32s6d	Very dull.
Saturday	32s6d	33s0d	32s6d	Quiet but steady.
Monday	32s6d	33s0d	32s6d	Quiet but steady.
Tuesday	32s9d	33s2d	32s9d	Firmer.

To-day's cablegram is as follows:

LIVERPOOL, Oct. 5.—American advices affect market favorably. California spot lots, 6s 6d; off coast, 32s 9d; just shipped, 33s 3d; nearly due, 33s' cargoes off coast, firmly held; on passage, firmer and held higher; Mark Lane wheat, firm; weather in England, wet.

San Francisco.

WHEAT.

	Seller '92.	Buyer Oct.	Buyer Dec	Buyer Jan.	May
Thursday, high st.	129⅝	....	134¾	135½	139¾
" lowest	129	....	134¼	135¼	139½
Friday, highest	129¾	....	135	135⅝	....
" lowest	129⅝	....	134½	135⅜	....
Saturday, highest	129⅝	....	134¾	....	....
" lowest	129⅝	....	134½	....	....
Monday, highest	130¼	....	136⅛	....	....
" lowest	130	....	135¾	....	....
Tuesday, highest	....	....	137	137½	141¾
" lowest	....	....	135¾	137½	141½

The following are to-day's recorded sales on Call:

Morning Informal.—Wheat, Buyer December, 100 tons, $1.36¾; 900, $1.36⅝; 400 $1.36½; 300, $1.36⅜; 400, $1.36¼ per ctl. Regular Session.—Buyer December, 100 tons, $1.36½, 1500, $1.36¾; 50, $1.36⅝ per ctl. Afternoon.—Buyer December—1700 tons, $1.36½; 600, $1.36⅝; 1500, $1.36⅝; 100, $1.36¼ per ctl.

BARLEY.

	Seller '92.	Buyer Oct.	Buyer Dec.	May
Thursday, highest	....	85⅛	90⅜	....
" lowest	....	85½	9 ⅜	....
Friday, highest	....	....	91	....
" lowest	....	....	90⅞	....
Saturday, highest	....	....	9 ¾	93¾
" lowest	....	....	90⅞	93¼
Monday, highest	85⅞	....	....	....
" lowest	85	....	....	....
Tuesday, highest	....	....	....	9¼
" lowest	....	....	....	9¼

The following are to-day's recorded sales on Call:

Informal—Barley, Seller 1892, 200 tons, 85⅞c. Buyer December, 200 tons, 90⅝c per ctl. Regular Session.—December, 100 tons 89½c. Seller 1892, 500 tons, 81½c; 100, 81c. Buyer December, 100 tons, 90⅝c. May, 500 tons, 95c per ctl. Afternoon—December, 100 tons, 90½c; 100, 90⅛c; 100, 90⅜c; 300, 91c; 300, 91¼c; 100, 9 ⅛c. May, 300 tons, 95½c per ctl.

Eastern Markets.

The following shows the closing prices of wheat for the past week at

New York.

Day.	Oct	Nov.	Dec.	May.
Thursday	131	133¾	136⅛	146¾
Friday	131⅛	133⅞	136⅝	146⅝
Saturday	130¾	133	135⅞	145⅝
Monday	130⅝	133⅛	135⅝	145⅝
Tuesday	131⅛	134	136⅜	146⅜

The following is to-day's telegram:

NEW YORK, Oct. 5.—Wheat, 78⅞c for October, 81⅞c for December, 83c for May and 8 ⅛c for November.

Chicago.

Day.	Oct.	Dec.	May
Thursday	121⅞	126⅜	135¼
Friday	121¼	126¼	134¾
Saturday	121	126	134⅛
Monday	....	126¼	134¾
Tuesday	122¾	12 ¾	136⅛

The following is to-day's telegram:

CHICAGO, Oct. 5.—Wheat, 76½c for December and 82c for May.

Markets by Telegraph.

Foreign Grain Review.

LONDON, Oct. 3.—The Mark Lane *Express:* The price of English wheat averages wonderfully low, deliveries at the west country markets selling at 24@27s ℔ quarter, the lowest average recorded. Threshing of the new wheat is disappointing, mean quality at least 1s 6d below 1891. Since harvest the English wheat sales amount to 34,000 [this is evidently too low.—ED. PRESS] quarters, against 414,000 quarters for the corresponding time last year, and 781,000 quarters for the same time in 1890. An unusually large proportion of that cut in August last remained unstacked until the middle of September, owing to rain. Foreign wheats were steady. Millers require good foreign to mix with damp new English. Oats are 3d higher. Barley is in active demand, grinding being up 6d. Good American corn is selling at 23s 3d.

Hops Active and Higher.

NEW YORK, Oct. 1.—Our market was much enlivened at the close by export shipments. Eight hundred bales of selected new went to Europe, chiefly on consignment, but enough were sold outright on the basis of 23½ and 24 cents, delivered to vessel, to indicate a revival of the demand and impart a stiffer tendency to spot prices. At interior State points the feeling is decidedly buoyant. Sellers who have contracted with brewers at 22c now find difficulty in covering. New hops, State and Coast, are quoted as they run at 22½@23c. Ninety-ones range at 18c to 22c for State and 17@21c for California.

Wool Low, But Demand Active.

NEW YORK, Oct. 1.—The market is running in its old groove of low prices and free offerings. September made a deep inroad in seaboard supplies, but stocks yet present a bulk that discourages any inclination to form a better plan of rates for owners. A favorable feature, however, to note is the equalized absorption of all grades of washed and unwashed. If this continues and manufacture is unchecked (the latter being an unlikely condition) the market can be reasonably expected to ripen into better figures, though not to a degree that will inspire speculative comment, as manufacturers' prospective margins are too well defined. The sales at New York were 6,300,000 pounds of domestic and 413,000 pounds of foreign. Sales at Boston, 3,635,000 pounds of domestic, also 565,000 pounds of Australian and foreign carpet.

Canned Fruit Slow, Dried Active.

NEW YORK, Oct. 1.—Canned fruits are quiet and unchanged. The general trade is more interested at the moment in dried than tinned goods. Evaporated peaches sold at 14½@16c. Prunes, though easier, are above large buying views. A sale of four sizes is reported at 9½c, free on board. Faith in the stability of the raisin market is not apparent. No one seems competent or courageous enough to name top prices for home-raised. Valencias are lower; layers, 6c; off the stalk, 5c. Apricots are steady at 15@17c for even grades.

Honey and Beans Advancing.

NEW YORK, Oct. 1.—Honey—Strained light amber has gone up to 8½@8¾c spot. This would be paid for carload quantities. Lima Beans—There is more interest, showing the market is toning up. Spot, $2.05@2.10, the latter for strictly choice.

General Remarks and Statistics.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending Oct. 4, '92, were as follows:

Flour, qr. sks	194,040	Bran, sks	13,666
Wheat, ctls	272,994	Buckwheat "	....
Barley, "	102,900	Middlings "	2,325
Rye, "	....	Chicory, bbls	140
Oats, "	18,703	Hops, "	749
Corn, "	967	Wool, "	2,549
*Butter, "	1,719	Hay, ton	2,456
do bxs	185	Straw, "	65
do bbls	114	Wine, gals	138,970
do kegs	190	Brandy, "	12,830
do tubs	100	Raisins, bxs	....
do ½ bxs	78	Honey, cs	7
†Cheese, ctls	1,012	Peanuts, sks	..
do. bxs	101	Walnuts "	32
Eggs, doz	17,150	Almonds "	36
do " Eastern	....	Mustard "	1,697
Beans, sks	24,276	Flax "	....
Potatoes, sks	27,750	Popcorn "	....
Onions, "	5,890	Broom corn, bbls	40

*Overl'd, 697 ctls. † Overland, 752 ctls.

Exports by Sea from San Francisco from July 1 to Sept. 29.

	1892-93	1891-92
Wheat, ctls	2,735,803	4,107,479
Flour, bbls	298,848	284,354
Barley, ctls	563,111	295,579

Tonnage Movement.

From reliable advices up to Oct. 5, the following summary tonnage movement is compiled:

	On the way 1892.	On the way 1891.	In port 1892.	In port 1891.
San Francisco	283,345	424,803	*164,147	86,310
San Diego	9,770	25,224	11,060	.....
San Pedro	7 342	.....	....	
Oregon	53,425	69,207	35,607	11,532
Puget Sound	29,328	32,213	.....	
Totals	383,210	551,447	210,214	97,842

*Engaged for wheat, 1892, 40,446; 1891, 73,328.

Cereals.

Mark Lane Express, Sept. 19th, says: Foreign wheat has come in very freely, and made all the port markets dull. About 6d decline upon the week has to be quoted. The visible supply of wheat in England and America is now 18,443,000 qrs., against 14,048,000 qrs. one year ago and 14,623,000 qrs. two years since. America for the cereal year ended Aug. 31st last shipped to all countries 225,662,000 bushels of wheat and flour, against 106,181,000 bushels in the previous year. This increase of 119,481,000 bushels in the quantity of wheat available to meet requirements not only entirely wiped out a deficit of some 5,000,000 bushels in Russian exports, but left over 8,000,000 qrs. to the good. Stocks in the United Kingdom have been increased by between two and three millions, and French reserves by a full million. Consumption of wheat has also been stimulated on the one hand by the quite unexpected plethora of supply, followed by cheapness in price, and on the other by the deficiency in the European rye crops of 1891 sending up the price of black bread above that of white.

Chicago mail advices up to Sept 30th report that in every State, in the winter wheat belt, farmers are generally busy preparing their ground, and, in many instances, are putting in the crop, and that seeding will be earlier this year than it was last. In central Illinois everybody has been sowing wheat this week. The rains of a week ago put the ground in excellent condition. In southern Illinois the prospects are that the acreage will be about an average of what it has been for the past four or five years. But little has been seeded as yet, but the prospects are that everybody will be at work next week. Ohio reports that farmers are putting in their wheat rapidly. The ground was never in better condition. There is no prospect of any increase in acreage, if anything a little falling off. Indiana reports the ground in fine condition, seeding progressing satisfactorily, but the ground is getting somewhat dry, and rain at this time would be beneficial. Some farmers are holding off seeding, fearing the ravages of the fly. Michigan farmers are making excellent progress with seeding, and the crop is going into the ground in good shape. Southern Missouri reports wheat seeding generally two weeks earlier than usual. Ground in excellent condition, and no material increase in acreage. In Kansas, nearly all the land has been plowed for fall wheat, and from reports all over the State the condition of the ground is excellent. Some have already commenced to seed, and the probabilities are that the acreage will be larger than it was last season. South of the Ohio river, the States of Kentucky and Tennessee show that up to very recently the ground has been so dry that very little seeding has been done. No wheat will be put into the ground before October, which is the usual time in that section of the country for seeding.

The European and American stocks of wheat and flour, together with the stocks of wheat afloat on Sept. 1st, were 107,000,000 bushels, against 86,000,000 bushels on the corresponding date last year and 64,000,000 bushels in 1890.

A review of the situation in France shows that in the years 1889 and '90 the wheat crop averaged 320,000,000 bushels, and the imports each year about average for the two years 40,000,000 bushels. This year it is estimated, with a total crop of 309,000,000 bushels, that the imports will have to be at least 50,000,000. The acreage of wheat in France has been decreasing steadily for some years past, and, on the other hand, the consumption has been increasing. In the decade ending 1841, the consumption was 4½ bushels per capita. From that it steadily increased to 6.87 in 1872-'81, and in the past decade it has risen to 7.7 bushels per capita.

Advices from the Argentine Republic are that a large acreage of wheat was sown this season under very favorable circumstances and the plant is in very good condition.

Wheat to-day was quite strong in our market with a slight advance obtainable for shipping parcels desirably situated. For stiffening and topping off, exporters pay an advance on bids. The offerings are very light.

Barley was quiet to-day, but there was a firm tone, which indicates a slightly better bid for the more desirable grades in the near future. Some buyers think that, with early rains, the market for feed may go a shade lower, and, acting on this, they are not buying beyond immediate requirements.

Corn was slow and heavy to-day, but oats were steadier with a fair inquiry.

Feedstuff.

The market for bran and middlings was firm, steady for ground and rolled barley, and weak for feed meal.

Hay was in fair demand, with reports of sales made at a slight advance on outside quotations.

Dairy Produce.

Butter was weak and irregular to-day for all grades from good down, but strong for choice to gilt-edged. Owing to two vessels with large consignments on board from Humboldt being bar-bound, the stock of gilt-edged is very light, and holders are taking advantage of the scarcity to force prices up.

Cheese was slow to-day at unchanged quotations.

Eggs were very weak; buyers are holding off. Outside quotations are only reached in a small way.

Vegetables.

Garden truck was generally quiet and in buyers' favor to-day. Only the more choice met with any degree of favor.

Onions were dull and heavy, as were potatoes. Heavy receipts of the latter and an absence of a shipping demand were against sellers.

Fruit.

The market for deciduous fruits, without exception, was dull and heavy to-day. Several consignments of the more perishable were sold at the best prices obtainable. Winegrapes were slow. The quality was generally poor to fair; very few choice were to be seen.

Limes sold high, owing to a temporary scarcity. Lemons are slow at the advance.

Sellers report a weak and irregular market to-day for dried fruit. To force consignments, concessions are in order, but to enter the market full quotations, and perhaps a slight advance, would have to be paid.

Live Stock.

The market held the past week to fairly steady prices. At times a slight advance had to be paid for choice bullocks and mutton sheep. Hogs are weak.

Miscellaneous.

Poultry has met with a good demand throughout the week. Ducks are scarce and command an advance. Turkeys are also higher, but geese are lower. Choice conditioned large-sized hens and roosters continue scarce, and when found fetch an advance on outside quotations.

Honey continues scarce, so far as extracted is concerned, but comb is only fairly firm.

Wool is reported firmer under an improved inquiry. Scourers are reported to be sampling. The market at the East is reported to be improving.

Nuts are reported to be in fair demand.

Hops are reported quite strong for the better or more choice grades. Growers are reported as firm in their convictions that a better market will obtain soon.

Beans are fairly firm. Receipts are, as yet, light, barely enough to meet current inquiries.

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

OCTOBER 5, 1892.

Limes, Mex	7 00 @ 8 00	Quinces pr bx	50 @ 65
Do Cal	2 00 @ 4 00	Extra choice fruit for special purposes sells at an advance on outside quotations.	
Lemons, box	5 00 @ 7 00		
Do Sicily choice	7 — @ 9 —		
Strawberries, per chest—		Beets, sk	— @ 75
Sharpless	6 00 @ 9 00	Carrots, sk	40 @ —
Peaches, box	50 @ 75	Okra, dry, lb	15 @ —
Figs, blk box	25 @ 75	Do green box	25 @ 50
Do White	25 @ 50	Parsnips, ctl	— @ 1 25
Apples	35 @ 65	Peppers, drv, lb	10 @ —
Do Choice	75 @ 1 00	Do grn Chili, bx	30 @ 40
Do Extra choice	1 25 @ —	Do do Bells	25 @ 40
Canteloupes, pr crate	50 @ 1 00	Turnips, ctl	75 @ —
Melons, pr 100	5 00 @12 00	Cabbage, 100 lbs	50 @ 65
Nutmegs, ⅌ box	25 @ 40	Garlic, lb	1 @ 1½
Grapes, pr bx—		Tomatoes	25 @ 35
Do White	25 @ 40	String Beans, lb	1 @ 2½
Do Black	25 @ 55	do do Wax, lb	2 @ 3
Do Muscats	25 @ 50	Lima Beans	4 @ 5
Do Tokays	40 @ 75	Cucumbers, box	10 @ 25
Do Royal Isabel	75 @ 1 00	Do pickle ⅌ lb	⅞@ 1½
Wine Grapes,		Mushrooms	— @ —
Zinf'nd'l, pr tn	10 00 @15 00	Egg Plant, bx	20 @ 50
Plums, ⅌ box	35 @ 50	Green Corn, box	50 @ 75
Pears	25 @ 75	Mar'fat Squash, ⅌ ton	5 00 @10 00
Do Bartlett	1 00 @ 1 50		

Live Stock.

BEEF.		MUTTON.	
Stall fed	5 @—	Wethers	6½ @—
Grass fed, extra	5 @—	Ewes	6 @—
First quality	4½@—	Do Spring	7½ @—
Second quality	4 @—	HOGS.	
Third quality	3 @—	Light, ⅌ lb, cents	5 @—
Bulls and thin Cows	2 @—	Medium	4½@—
VEAL.		Heavy	4½@—
Range, heavy	4½@—	Soft	4 @—
Do light	5½@—	Feeders	3¾ @—
Dairy	6½@—	Stock Hogs	3½@—

Care of Tools.

One of the duties of the smith, as it is the duty of workmen in every department, is to keep his tools in order. The great trouble in the smith-shop is the battering of the heads of tools and faces of hammers. This battering is due to impact, which is a change of the molecules induced by heat generated by motion. The constant blows set the molecules in motion and cause crystallization, which is simply the forming of the molecules into crystals, which are the natural form of solids as the spherical is of liquids, and by this reformation of the molecules, their cohesive powers are weakened and the strength and resistance of the tool lessened. Steel hammers and sledges become crystallized in less than a year, from constant use, and chip off at the outer edges and sometimes inflict painful wounds. More than one such case has been recorded where chips from hammers have caused the loss of an eye, and where serious wounds have been the result of a careless failure to keep the hammers dressed up.

Hammers and sledges also become hollow on the face, from constant use and neglect, which not only unfits them for use, but makes them liable to split. They frequently split at the eye, which is caused by crystallization, and those which are fullered at each side of the eye frequently break at the fullered portion, causing more or less damage age and injury.

Aside from the danger of this neglect, the quality of the work is lowered. Imperfect tools cause the twist in the iron when swaged and the unevenness of the fullering, and that in smoothing off a flat piece of iron, one side becomes thinner than the other, and so on to the end of the chapter, so that, besides being a safer way, it is a more economical way to have the tools kept in proper order. If there is anything that looks shiftless, it is a tool bench with tools all battered up. While it is, of course, utterly impossible to have the heads in the best condition when the tools are in constant use, there is no necessity for leaving them till they are battered way down to the eye and beyond all usefulness and hope of repair, when an occasional dressing and repairing would make them safer and more useful, and at the same time increase their durability. The thrifty workman will not allow this state of affairs to remain, and will find time to keep his tools in good order, however busy he may be; as he realizes that it pays to do it, and in reality saves time in the work. A workman who understands his tools and how they are made will understand how to do this, and needs no advice; but to the apprentice, any suggestions in every line that pertains to his labor are welcome, and in the future we hope to have something more to say on this subject.—Amesbury Vehicle.

AMERICAN BERKSHIRE RECORD.—We have received Volume XII of this official publication by Berkshire breeders. The volume contains 3000 pedigrees—1077 boars and 1923 sows—numbered from 23,001 to 26,000, with 1053 boars and 1325 sows in the list of transfers of recorded animals. The appearance of this volume so soon after that of Volume XI, and during a time of general depression in the swine industry, shows that this breed yet holds its place in popular esteem. The liberal special premiums offered by the American Berkshire Association at the several State Fairs in 1892, and at the Columbian Exposition in 1893, are evidence that the Association is using its best endeavors, and intends that the Berkshire shall remain at the head of swine breeds. For this and previous volumes of the American Berkshire Record, the British Berkshire Herd Book, entry and transfer blanks, or other information, address John G. Springer, Secretary, Springfield, Ill.

IRON AS AN EVIL GENIUS.—Iron is so generally accredited as the most useful of metals that it seems somewhat strange to find it playing the role of a troublesome constituent. But such is the case from the glassmaker's point of view. To the worker in vitrified sand, iron is undoubtedly an evil genius. The public taste objects to the green color of ordinary commercial bottles, and demands a white or colorless glass. If the glassmaker could obtain pure materials at a reasonable cost, the making of white glass would be as simple as that of green. But as the minute quantities of iron in his materials are practically ineradicable, he must seek the desired end by chemical and chromatic methods. In its various forms, metallic, protoxide and peroxide, and the several mixtures of these states, the metal runs through the whole scale of colors—black, blue, green, yellow, orange and purple. All these colors are generally counted common and undesirable. Yet iron finds its way into the glass in so many ways that it is harder to avoid than any of the besetting evils of the glassmaker's work. It is in his sand, soda and lime, in the mixer in which he mixes them and in the barrels that bring these raw materials to the factory. It is in the clay of his pots, and the tempering-mills in which the clay is worked contribute a fair contingent. In the cullet is always to be found a number of nails, and the millings or blacks from the blower's pipes contribute a most baneful, because irregular, quota. Finally, the mischievous and holiday-loving gamin of the factory adds his mite from time to time. All his art and all his oxidizers, arsenic, nitrate and manganese, cobalt and nickel, must be pressed into the service of the glassmaker in order to bring to the nearly colorless state of peroxide as great a quantity of the iron as possible, and the remainder has to be hidden by chromatic effects.—Iron.

"Put Money in Thy Purse."

Our lady readers will be deeply interested in the advertisement of Glasgo Lace Thread Co., which appears on page 306.

TO NURSERYMEN and PLANTERS

In California and Arizona.

300,000 Pomolo (or Grape Fruit)

SEEDLING NURSERY STOCK.

ALSO 100,000 SOUR ORANGE STOCK.

Will be offered at very reasonable prices for next 60 days by the grower,

S. M. STEVENS.
LAKELAND.....FLORIDA

Or C. B. HEWITT.
PASSADENA .....CALIFORNIA

Proprietor of Southern California Nurseries

FOLDING SAWING MACHINE

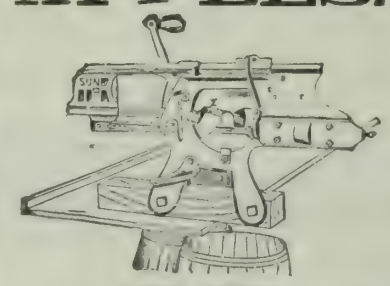
9 CORDS IN 10 HOURS.

Send for free illustrated catalogue, showing testimonials from thousands who have sawed from 5 to 9 cords daily. It saws down trees, folds like a pocket-knife, weighs only 41 lbs., easily carried on shoulder. One man can saw more timber with it than two men with a cross-cut saw. 42,000 in use. We also make larger sized machine to carry 7 foot saw.

Order from the general agent for California. The machine will cost you less than by single shipment direct from the factory at Chicago.

JAMES LINFORTH, 37 Market St., S. F.

APPLES.



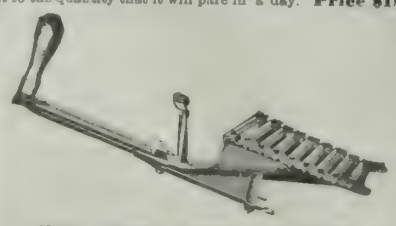
CORES. PARINGS.

THE SUN PARER AND CORER,

As now improved, comes nearer to meeting all requirements for rapid and effectual work than any other parer made.

Evaporators demand a parer that has sufficient stability to run three months without requiring twice the original cost in repairs. They want a parer that an ordinary person can keep in order and not be required to hire an expert machinist. One that is neat and clean to run, and does not spatter the operator from head to foot. They want a parer that will separate the apple cores and skins, leaving the apples on the trimming table and dropping the cores and skins in separate barrels; one that will pare 100 bushels of apples a day. The parer that meets the wants best is the parer that will pare the greatest amount in the shortest space of time.

The SUN PARER is the only practical lever machine made; it will pare as fast as the operator can pick up apples and put them on the fork. So draw your own conclusions as to the quantity that it will pare in a day. **Price $18.**



THE SUN APPLE SLICER

Gives the best satisfaction of any slicer on the market. It is the most rapid Hand Slicer in use. For cost of labor and quantity of work done with it, we challenge comparison with any Slicer made. A number of users state that it takes a little longer to slice the apples than with the foot-power machines, but it does its work so much better that they gain four times the difference of time in drying. **Price $5.00**

—ALSO—

CIDER MILLS AND PRESSES.

—ADDRESS—

G. G. WICKSON & CO.,
8 & 5 Front St., San Francisco.
346 N. Main St., Los Angeles. 141 Front St., Portland Or

STATE FAIR, 1892.

The following San Francisco Firms and Individuals Received the Highest Awards of the State Agricultural Society at the late State Fair.

CRANE COMPANY,
For BEST WINDMILL—Four in competition.

BAKER & HAMILTON,
BEST DISPLAY OF AGRICULTURAL MACHINERY, CALIFORNIA MANUFACTURE, GOODS MANUFACTURED BY BENICIA AGRICULTURAL WORKS.
BUFFALO-PITTS THRESHING MACHINE.
TIGER HAY RAKES.
FAVORITE POWER CORN SHELLERS.
B. & H. LAWN MOWERS.
BUCKEYE REAPERS
HALLECK POTATO DIGGER.
BENICIA SIDE-HILL PLOWS.
EUREKA SULKY PLOWS.
BENICIA SOD PLOW.
BEST PLOW FOR ALL PURPOSES, THE "BENICIA."
BENICIA SPRING WAGON.

G. G. WICKSON & CO.
BEST DISPLAY OF MODERN DAIRY MACHINERY.
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MASON POWER BUTTER WORKER.
FARM CHEESE VAT WITH HEATER.
ROSS HAY AND ENSILAGE CUTTER.
ROCHESTER ORCHARD AND VINEYARD PLOW.
PLANET Jr. HORSE HOE AND CULTIVATOR.
PLANET Jr. HAND SEED DRILL.
CALIFORNIA FRUIT GRADER.
SMITH CLINGSTONE PITTER.

J. W. GRACE & CO.
CANNON'S SHEEP DIP—Three in competition.

F. W. KROGH & CO.
BEST SWEEP HORSEPOWER.
WINE AND CIDER PRESS.

DANIEL BEST, San Leandro,
BEST GRAIN CLEANER. GAS or GASOLINE ENGINE.

PARAFFINE PAINT CO.
BEST PREPARED PAINT (P. & B.).
SAMPLES OF PAINT, CAL. MANUFACTURE (P. & B.).

Nancy Hanks

Record 2:05¼.

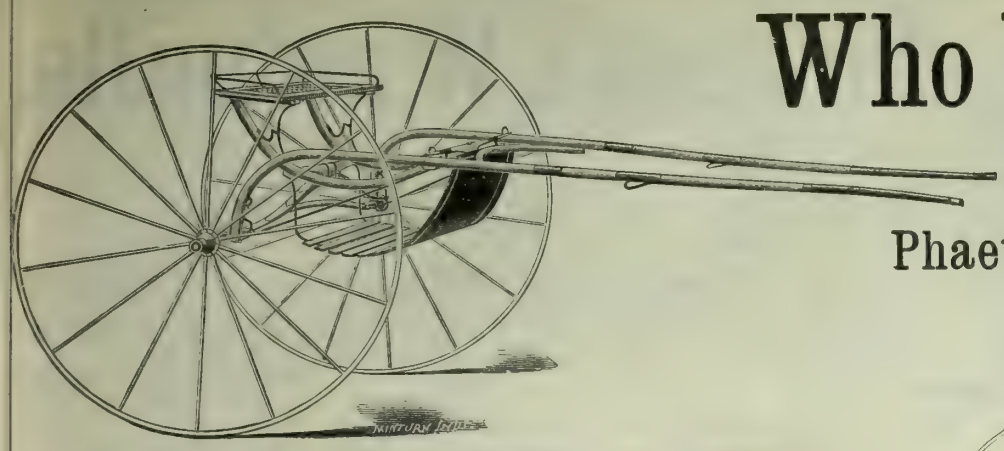
Trotted the fastest mile on record when hitched to a Sulky with Ball Bearing, Pneumatic Tired Wheels.

WE CAN FURNISH YOU WITH A
NO. 205 NANCY HANKS SULKY
With Pneumatic Tired Ball Bearing Wheels.
For $250.00.

This price includes the Regular Sulky Wheels as well, and either style may be used. We solicit your order.

Remember, we give you the Regular Wheels in addition to the Pneumatic Tired Wheels. So you have two sets of wheels with each Sulky.

TRUMAN, HOOKER & CO.
421-427 MARKET ST., S. F.



Who Wants a Buggy,

Road or Spring Wagon,

Phaeton, Surrey, Carriage or Harness?

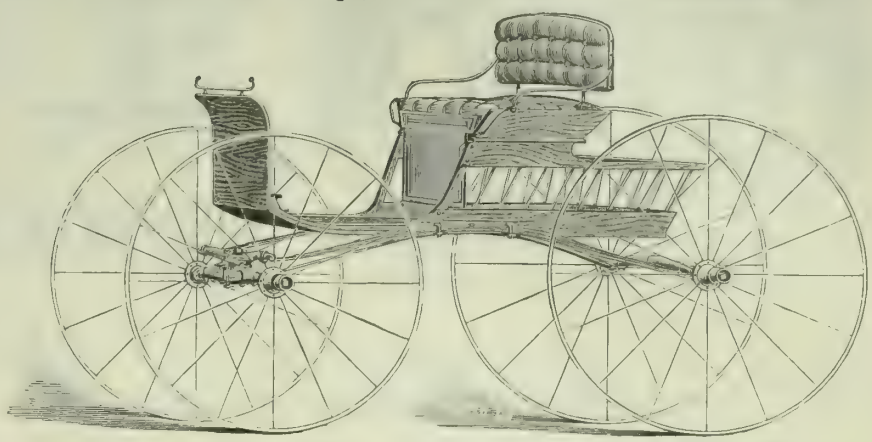
NO. 1 CART, HIGH GRADE, CANE BOTTOM SEAT, PRICE $18.

WRITE US FOR CATALOGUE, OR CALL UPON US.

WE SHIP GOODS EVERYWHERE

— AND —

WILL SAVE YOU FROM $20 TO $50 ON A VEHICLE AND $3 TO $10 ON HARNESS.



NO. 30 WAGON, FINEST QUALITY AND FINISH, PRICE $58.

CALIFORNIA WAGON & CARRIAGE CO., 36½ Fremont St., San Francisco, Cal.

INDUSTRIAL PROGRESS IN THE SOUTH.—Since 1881 the corn crop of the South has increased 75 per cent, as against 71 per cent in the rest of the country; the cotton crop has increased from five and a half million to nine million bales—an increase in value, even with the present low price, of $200,000,000; in 1891 there were nearly 45,000 miles of railroad in the South, against less than 24,000 in 1881—a gain of 87 per cent, as against a gain of 56 per cent in the rest of the country. The passenger traffic of the same roads increased during the same period 360 per cent, as against an increase in the rest of the country of only 168 per cent. In pig-iron manufacture the South's output jumped from 451,000 tons in 1881 to 1,914,000 in 1891—a gain of 323 per cent, as against a gain for the rest of the country of 78 per cent; in other words, in 1881 the North and West made more than nine times as much iron as the South; in 1891 they made less than four times as much. The increase in the number of milloperators in the South was 135 per cent, as against an increase in New England of 17 per cent. And so in every line of productive activity the marvelous rapidity of increase is explained, showing that in assessed valuations the property of the South has in this period very nearly doubled, and increased from $187 per capita to $271—a record that is probably without a parallel in the whole history of substantial industrial growth. And in spite of the temporary depression caused by an overproduction of cotton, the increase goes on.—Forum.

FINISHING REDWOOD.—In order to properly educate the Easterner in the proper way to finish redwood the following method—which is a satisfactory one—is published. It gives a hardness and lasting polish. It is as follows: For the first application use one part of boiled linseed oil to five parts of benzine or turpentine. This gives a rich dark color without staining, and by exposure to the sunlight a varied color is obtained, the softer part or end wood turning dark, the other remaining light. The wood should then be treated with two or more coats of shellac and well sandpapered; then apply varnish or hard oil as required, after which, if well rubbed with pumicestone, a highly polished surface is obtained. Where a light, cheerful finish is required use only white shellac for filler, and shellac, hard oil or varnish for outside coat, hard oil being preferable, as it gives a greater protection to the wood.—West Coast Lumberman.

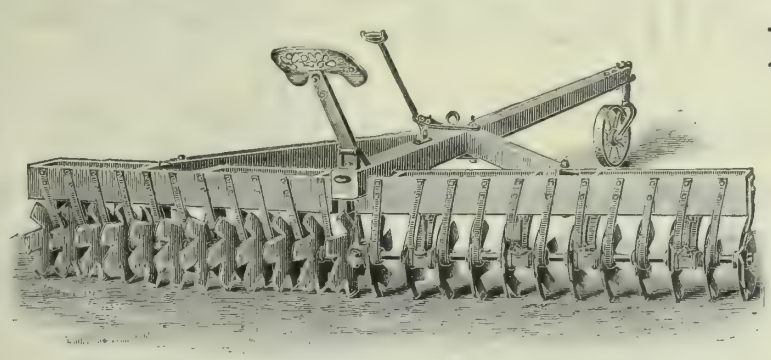
D. M. Osborne & Co.

Attention is called to the advertisement in this issue of D. M. Osborne & Co., the well-known manufacturers of harvesting machinery.

They have greatly enlarged their manufacturing plant at Auburn, N. Y., and are now building a full line of harrows. As they have their own rolling-mills and malleable iron foundries, they are enabled to build these goods entirely of steel and malleable iron, which is a great improvement on the wood-frame tools of this description previously used in California.

COLOR blind and fire blind are not at all synonymous terms nor are the conditions similar. Color blindness is generally permanent; fire blindness only temporary. A person gazing intently at an open fire for some time may become fire blind for the time being, and thus be unable to judge of the degree of heat that is being taken on a piece of metal.—Sparks from the Crescent Anvil.

MOLINE GANG PLOWS.



GREAT WESTERN

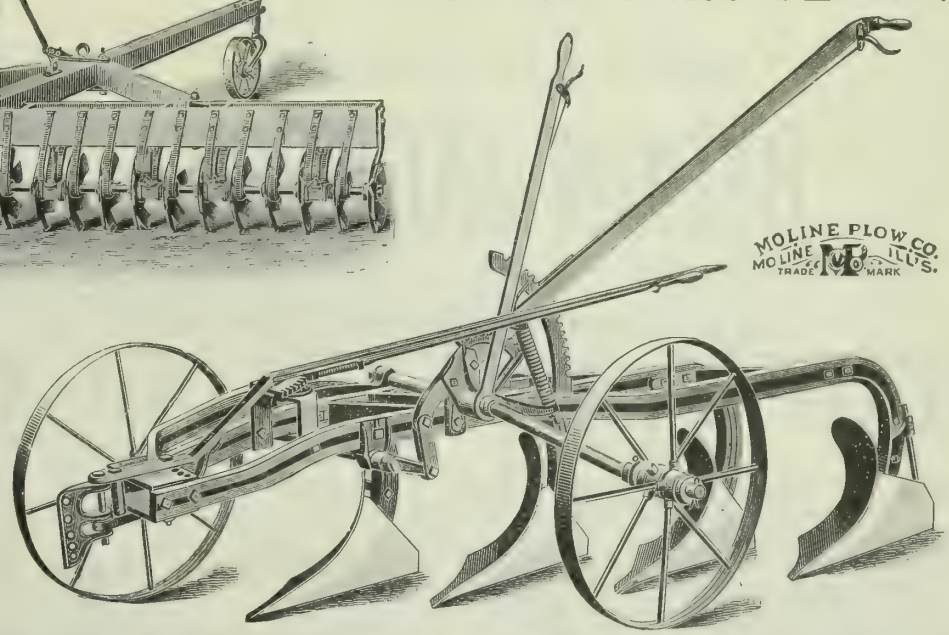
CUTAWAY HARROW.

10 Ft., 12 Ft. and 14 Ft. Cut.

The only Disk Harrow that will cut hard land sufficiently deep to insure the proper covering of sowed grain.

Write for Catalogue and Price.

Mention this paper.



ALLISON, NEFF & CO.

Southeast Corner Market and Main Streets, San Francisco.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription, paid in advance, 5 mos., $1; 10 mos., $2; 15 mos., $3. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

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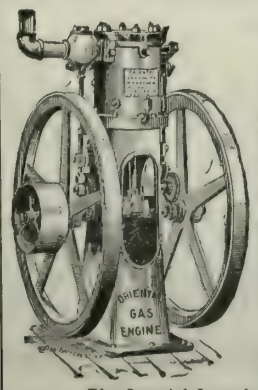
PURCHASING IN CITY A SPECIALTY. ADVANCES made on consignments. Highest references. Address "Energy," this office.

1838.....54 YEARS.....300 ACRES.....1892

NUT TREES AND NEW PEARS.

Parry's Giant, Pedigree Japan Mammoth, Paragon, and other Chestnuts. Japan, Persian, French and English Walnuts. Pecans, Almonds and Filberts. LINCOLN CORELESS PEAR—very large and very late. SENECA—large, handsome, and immediately after Bartlett. **Japan Golden Russet, Vermont Beauty and Idaho**, in collections at reduced rates. Bleagnus Longipes, **Hardy Oranges**, Wineberries, and other valuable novelties. **Shade Trees**, for Lawn or Street planting; Ornamental Shrubs, Vines, etc. **Grape Vines**, small fruit plants. Illustrated descriptive catalogue free. **WM. PARRY. Parry, N. J.**

THE ORIENTAL GAS ENGINE



IS THE BEST, because it combines simplicity of construction with power and economy in space. It can be run with natural or manufactured gas or gasoline at a cost of 20 to 25 cents per horse power per day.

It can be used for pumping purposes, as well as for all purposes where a perfect engine is required, with the advantage of lessening the risk of explosions. No licensed engineer at a high salary needed to operate it.

Send for circulars and prices if a good safe engine is what you need.

The Oriental Launch is Perfection.

M. A. GRAHAM,

Inventor and Manufacturer,

105 BEALE STREET, SAN FRANCISCO.

Postmasters are requested to be sure and notify us when this paper is not taken from their office. If not stopped promptly (through oversight or other mishaps) do us the favor to write again.

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School of Practical, Civil, Mechanical, Electrical and Mining Engineering,

Surveying, Architecture, Drawing and Assaying,

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Open All Year.

A. VAN DER NAILLEN, President.

Assaying of Ores, $25; Bullion and Chlorination Assay, $25; Blowpipe Assay, $10. Full course of assaying, $50. ESTABLISHED 1864 ☞ Send for circular.

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BUSINESS COLLEGE,

24 POST ST., S. F.

FOR SEVENTY-FIVE DOLLARS THIS College instructs in Shorthand, Type Writing, Bookkeeping, Telegraphy, Penmanship, Drawing, all the English branches, and everything pertaining to business for six full months. We have sixteen teachers, and give individual instruction to all our pupils. Our school has its graduates in every part of the State.

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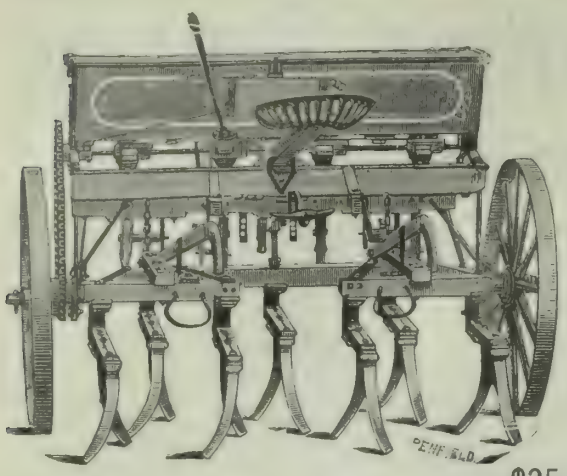
E. P. HEALD, President.

C. S. HALEY, Secretary



No. 3 "Bull Dog" Harrow, with Seeder attached, $35

(Cut does not show recent improvements; has 9 sets of teeth, as shown in cut below.)

Jackson's Windmills.

NOTE THESE PRICES:

10-foot Wheel, weight, 650 lbs.	-	-	$35 00
12-foot " " 700 "	-	-	45 00
14-foot " " 930 "	-	-	55 00

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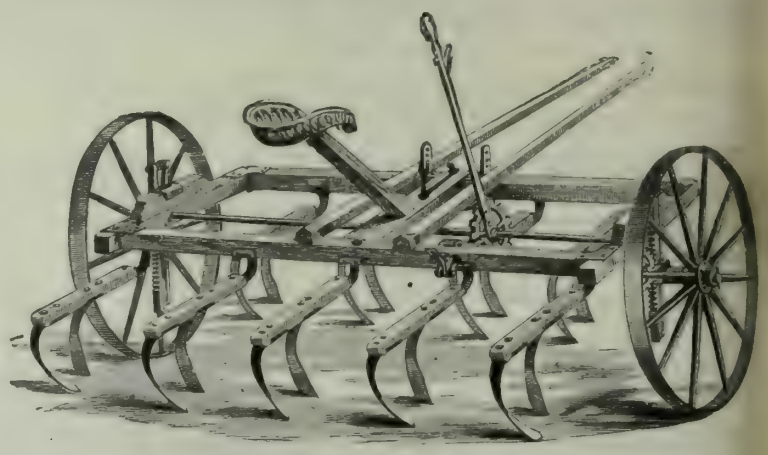


No. 3 "Bull Dog" 6 foot Riding Harrow.

"BULL DOG" RIDING HARROW, $25.00.

This tool is best adapted for hard, rough, stony, rooty, or boggy ground; is also excellent for cultivating summer fallow or fall plowing, when the ground is to be prepared for the seed.

It cuts 6 feet in width, has 18 teeth, and is recommended for the most obstinate soils, as, being an economical machine, which will do the work where no other harrow can be used.

THE MORGAN SPADING HARROW.

STYLE "E." FOUR GANG.

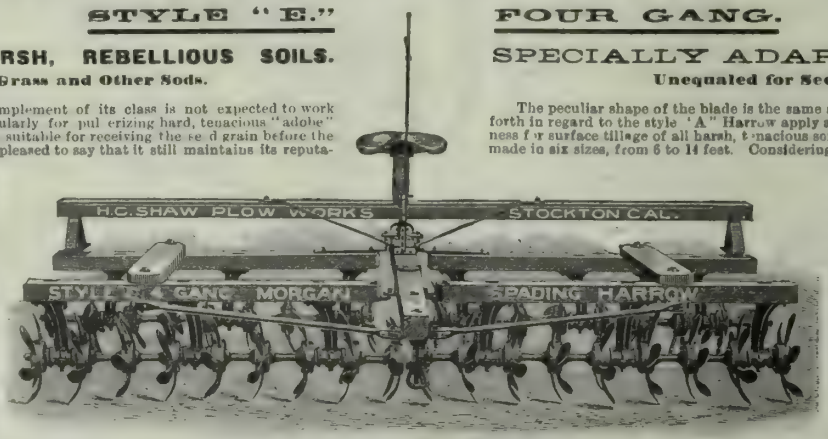
KING OF PULVERIZERS FOR HARSH, REBELLIOUS SOILS.

Matchless for Pulverizing Salt Grass and Other Sods.

The style "E" is designed for use in soils where any other implement of its class is not expected to work successfully. Intended for clay, or "adobe" soils, and particularly for pulverizing hard, tenacious "adobe" clods, in reducing "adobe" summer-fallow lands to a condition suitable for receiving the seed grain before the fall rains, it has leaped into prominence and favor, and we are pleased to say that it still maintains its reputation, won under great difficulties.

The front gangs throwing outward and the rear gangs throwing inward cause a most complete pulverization of all the surface and no furrow or ridge is left in the middle, as the rear gangs throw toward each other, leaving the whole "cut" of the harrow perfectly level and smooth.

The rear gangs of spades are so set that they run between the front gangs, thus presenting a cutting surface to the earth **every three inches**, whereas any two-gang disc or other harrow does not present a cutting surface to the soil any nearer than six inches. Owing to its peculiar construction, the style "E" Spading Harrow will do three times the amount of execution that any other kind of implement can possibly accomplish in the same time. The style "E" is a double machine, and by reason of one set of spades throwing the soil one way and the other set throwing the soil in an opposite direction, it accomplishes its work at one operation, or in going over the land once only, where disc or other harrows could not do the work in going over the land less than three or four times.

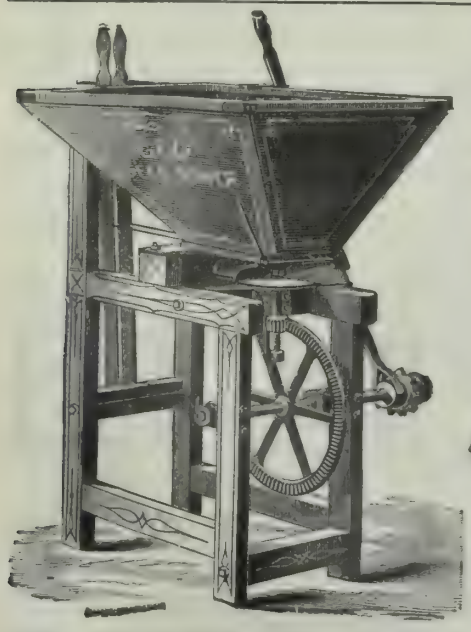


SPECIALLY ADAPTED FOR DRY SOWING.

Unequaled for Seeding Summer-Fallow Lands.

The peculiar shape of the blade is the same as those used on the style "A" Harrow, and any "points" set forth in regard to the style "A" Harrow apply also to style "E." The style "E" is unrivaled in its effectiveness for surface tillage of all harsh, tenacious soils, and often proves an effective substitute for the plow. It is made in six sizes, from 6 to 14 feet. Considering the amount of work accomplished it is very light of draft. It loosens, crumbles and lightens the soil, does not pack it, and does what no other implement in the world will do, viz.—leaves the soil thoroughly pulverized, stirring it from the bottom upward, in fine condition and exposed to the enriching influences of sun and air. It thoroughly covers seed grain and is a most economical implement to use for this purpose alone. It will cover from a fourth to a fifth more seed than any other implement used in broadcast sowing.

All of the materials entering into the construction of the style "E" Harrow being of the best obtainable, render it very strong and practically indestructible. No pole is used, as the harrow pulls perfectly "true" from strong draft irons. No unwieldy pole to be broken out or cause sore necks on the team. Write for prices.



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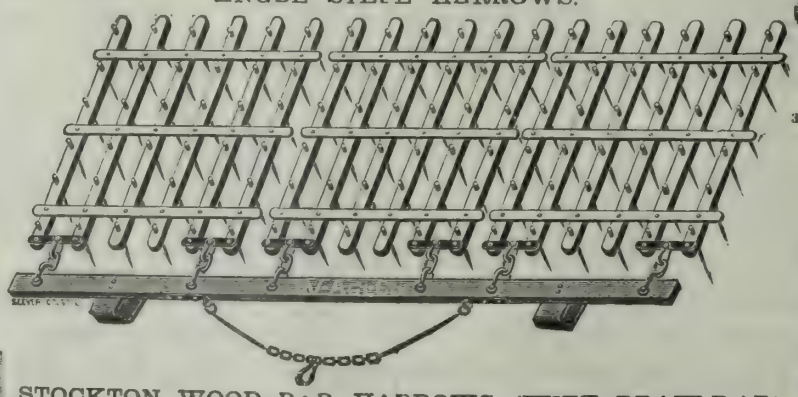

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We have Circulars descriptive of our goods, which we will send you at any time. Address

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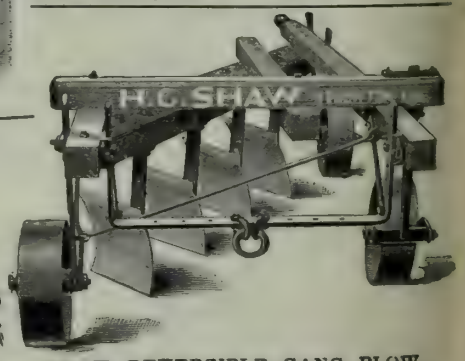

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35,000 in Use. 25 Years of Continued Success. The Most Economical Plow on Earth.

SHAW SLIP SHARE GANG.

For Deep Plowing, Tule and Other Sod Lands

PACIFIC RURAL PRESS

Vol. XLIV. No. 16. SAN FRANCISCO, SATURDAY, OCTOBER 15, 1892. THE DEWEY PUBLISHING CO. Office, 220 Market St.

Columbian Days.

It is a comforting reflection that future generations will not have as great trouble in ascertaining a few simple facts about the heroes of our day as we experience in attempting to fix a few points about those who lived in past centuries. Thanks to the snap shot camera, the ubiquitous reporter, the magnificent detail of "sossiety" journalism, most of our great men are already embalmed against oblivion as securely as though packed in spices at the base of the pyramids.

If any have failed of this kind of immortality, verily are they not written and portrayed with lead and steel in county histories? Have they not bought space in a dozen series of "Prominent Men of Our Time," "The Builders of the Commonwealth," etc.? They have, indeed, done their share to make it sure that posterity will not groan for lack of knowledge of them. We are, however, inclined to be harassed with doubt as to whether these generous contributions to fame will, after all, serve well those who make the investment. How are the antiquarians of A. D. 2500 to learn the correct lineaments of any hero of the present day who invests in several $5 newspaper portraits of himself? We, of the present, cannot recognize the hero in any of them. But why do we borrow trouble? Let the unborn future fondle its own offspring.

Now that we are fairly launched upon the Columbian year the air teems with notes of the world's admiration and gratitude. There is the most ardent desire to learn the utmost that can be ascertained or even imagined of the man. Unfortunately, nearly all the statements are matters of information and belief, not of actual knowledge. The engraving upon this page shows a building in Genoa, Italy, which is generally conceded to be the birthplace of Columbus, but its claim to that distinction is not demonstrated. Still it answers the purpose of a birthplace for those who desire to honor Columbus at the present day and it may have done as well for the hero himself.

There is another building very closely connected with Columbus' life, about which there can be no doubt and to which brief allusion can be made. It has been proposed to erect at Jackson Park, Chicago, a fac simile of the ancient convent of La Rabida, of Palos, Spain. It was at the door of the convent of La Rabida that Columbus, disappointed and down-hearted, asked for food and shelter for himself and his child. It was here that he found an asylum for a few years while he developed his plans and prepared the arguments which he submitted to the council at Salamanca.

It was in one of the rooms of this convent that he met the Dominican monks in debate, and it was here also that he conferred with Alonzo Pinzo, who afterward commanded one of the vessels of his fleet. In this convent Columbus lived while he was making preparations for his voyage, and on the morning that he sailed from Palos he attended himself the little chapel. There is no building in the world so closely identified with his discovery as this, and fortunately its architecture is of such a character as to permit of a reproduction at a comparatively small cost, and at the same time furnish a picturesque view and appropriate group among the splendid buildings at Jackson Park. It will not only be of itself a monument to Columbus, but it will furnish commodious and convenient showrooms for the collections and relics of Columbus that are to be exhibited.

SUPPOSED BIRTHPLACE OF COLUMBUS, GENOA, ITALY.

METEORITES ARE REAL ESTATE.—A very interesting case at law has just been settled in Iowa. A meteorite fell on a man's farm; another man dug it out and sold it. The farmowner sued the finder. The court held that the stone became part of the soil on which it fell, and that the finder had no right to remove it. The defense claimed that whatever was movable and found on the surface of the earth, unclaimed by any owner, was supposed to be abandoned by the proprietor. The Supreme Court has just ruled that as this stone was in the earth and practically unmoved, and was placed there by nature, it was a stone included generally under the property to be claimed. It is said that legal records show no precedent, and that the meteorite has just appeared for the first time in terrestrial courts.

FRESNO FARMERS' INSTITUTE.—The next quarterly meeting of the Fresno Farmers' Institute will be held in Selma on October 29th. Selma is an excellent point for such a meeting, as was shown upon a previous occasion. We trust all our readers in that region will bear the date in mind and attend. Probably we shall be able to give an outline of the program later.

DISBANDED.—The Price Hay Press Company has been given permission to disincorporate.

Late Peaches.

This year has brought to light several seedlings which seem likely to extend the peach season in the line of fine yellow varieties. At the last meeting of the State Horticultural Society, Fred C. Miles of Penryn exhibited two notable seedling peaches. One was a very large yellow cling, rich and handsome, ripening ten days later than Salway. Another of about the same date of ripening was a very large, beautiful, yellow freestone. Both are seedlings by Mr. Barton, whose name they will bear. Their great size, late ripening and excellent shipping qualities bid fair to make them notable in the future.

A fine yellow freestone, which seems to be a few days later than these, has been brought to light by C. W. Albright of Placerville. It is not so large as the Barton, nor are the samples sent us quite such a brilliant yellow color. It is, however, of good size, with rich yellow flesh of high and true flavor. The samples were picked October 5th, stood shipment to San Francisco perfectly, and have remained several days since receipt in perfect condition. The variety promises to have a future if its bearing qualities are satisfactory. Mr. Albright writes us that the tree is a chance seedling four years from the pit.

R. W. Bell of the Santa Rosa Nurseries kindly sent us samples of the Wonderful peach, picked September 26th. We take it that this is the peach sent out by Lovett under that name. It is a medium-sized yellow freestone, rather oval, keeps well and is satisfactory in interior qualities. Samples grown under more favorable conditions will probably show better size.

W. T. Kirkman, nurseryman at Atwater, Merced county, also sends us a good yellow freestone, ripening last of September, which has originated in his neighborhood. It is a very symmetrical, handsome fruit, of good quality. Though of good medium size, it should be larger to compare well with the other seedlings of the same or later season mentioned above. It is certainly worth attention, and may prove very valuable locally at least.

THE MEXICANS WANT OUR CORN.—Secretary Rusk announces that the time for the free importation of corn into Mexico has been extended till December 30, and stating further that between December and July 31 next, only one-fourth of the regular duty, which is one cent per kilo, gross weight, will be collected on imports. The Consul-General adds: "This free importation until the end of November and reduced import duty until January 31 has caused a greatly increased demand for our American corn, particularly in all the regions west of the Mississippi." Those who have either to buy or sell feed-grains on this coast may do well to heed this movement.

PACIFIC RURAL PRESS.

By The Dewey Publishing Co.

Office, 220 Market St.; Elevator, 12 Front St., San Francisco., Cal.

Annual Subscription Rate Three Dollars a year. While this notice appears, all subscribers paying $3 in advance will receive 15 months' (one year and 13 weeks) credit. For $2 in advance, 10 months. For $1 in advance, five months. Trial subscriptions for three months, paid in advance, each 60 cents.

ADVERTISING RATES.

	1 Week.	1 Month.	3 Months.	1 Year.
Per Line (agate)	$ .25	$ .50	$ 1.20	$ 4.00
Half inch (1 square	1.00	2.50	6.50	22.00
One inch	1.50	5.00	13.00	42.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type, or in particular parts the paper, at special rates. Four insertions are rated in a month.

Registered at S. F. Post Office as second-class mail matter.

Any subscriber sending an inquiry on any subject to the Rural Press, with a postage stamp, will receive a reply, either through the columns of the paper or by personal letter. The answer will be given as promptly as practicable.

Our latest forms go to press Wednesday evening.

ALFRED HOLMAN.....General Manager

San Francisco, October 15, 1892.

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[NEW THIS ISSUE.]

Harrows—D. M. Osborne & Co.
Plows—Baker & Hamilton.
Commission Merchants—Judson Fruit Company.
Fruit Trees—Trumbull & Beebe.
Windmills—Frank Brothers.
Musical Instruments—Kohler & Chase
Bargains in Land—John F. Byxbee.
Cream Separators—G. G. Wickson & Co.
Meat Choppers—Enterprise Manufacturing Co., Philadelphia, Pa.
Information for Women—Mrs. Alice Wells, Oakland.
Shorthorn Bulls—Robert Ashburner, Baden Station.
Fruit Trees—W. H. Pepper, Petaluma.
Angora Goats—Ernest Weyand, Colusa.
World's Fair Views—World's Fair Panoramic Co., Chicago.
☞ *See Advertising Columns.*

The Week.

Evidently, the season is closing in. The first rain to reach the bay region came on Saturday night and was a good rain, reaching a precipitation of an inch in some places. Since then, the extreme northern portion of the State has been included in the rain area. As we write, a norther of considerable force and of characteristic aridity prevails over the greater part of the State. It will be welcomed by some who are not yet ready for continued moisture, for it will speedily dispose of the recent precipitation. Frosts are reported from remote portions of the coast.

The public mind is now running strongly on politics, and little else can command a hearing. Fortunately, it is an off season in agriculture and engrossment in issues of statesmanship are not likely to seriously affect industrial interests. Before another issue of the Rural reaches our readers, the new holiday, Columbus Day, Oct. 21st, will have come and gone. The school idea of celebration is the accepted one and will constitute the chief observance. New York not allowing for the change in the calendar, is celebrating magnificently as we go to press on Oct. 12th. Chicago, observing the change in the calendar, will celebrate grandly Oct. 21st. If the change in the calendar accomplished no other good, that of obviating a quarrel between these two great cities should compensate the peace-loving old monk for his brainwork in getting a new way of measuring time.

Cessation of Weather Crop Bulletins.—The The weekly crop bulletin, which has been furnished us by the State Agricultural Society, in cooperation with the United States Weather Bureau, during the past growing and harvesting season, has been closed for the season. Much credit is due to Director Barwick for the zealous and self-denying work he has done. He in turn gives thanks to all the voluntary observers who have furnished him local reports. Such observers are not expected to send further reports until next spring, when the system of weekly reports will be revived.

A Precious Weed.

A weed has been well defined as a plant out of place, or, as a more modern terminology would have it, a weed is an agricultural misfit. The truth of this humane view of a weed is clearly seen in the fact that just as soon as a weed is claimed by estheticism, or by the arts industrial or curative, to be beautiful or useful, it is no longer hated and deprecated but is admired and sought for. When this phase in its history is attained the plant becomes more abundant by cultivation, or it becomes more rare because the wildling rebels against culture and is soon rooted out by those who plunder its habitat. Many of our favorite garden flowers are glorified weeds, developed almost out of resemblance to their humble prototypes by hybridization, selection and pampering. Some of our most costly drugs are the products of weeds which have been hunted almost to annihilation by herb-diggers. Stamped as desirable for any considerable purpose, the weed becomes a useful plant, an honored citizen of the vegetable world.

These reflections are forced upon us by the storm of inquiries which assail us about a member of the disreputable dock family, which now seems to be disappearing as a weed and likely to attain importance as a cultivated plant. It is the so-called "sour dock," the canaigre of the Mexican vernacular, the *Rumex hymenosepalum* of the botanist. The plant will be readily recognized by any one familiar with plants, for it discloses its relationship to the docks by its style of leaf-growth and seed-stem. It is rather an attractive-looking plant, for its red leaf-stems and veinings contrast well with the bright green of the leaf. It grows wild and was formerly quite abundant in Texas, New Mexico, Arizona and southern California, as well as in the northern areas of Old Mexico. The root of the plant has been used from time immemorial by Mexicans and Indians in their tanning of hides and skins, and it now is on the way the way to eminence because the commercial tanners of the world have so drawn upon various barks which yield tannin, that the world's supply of tannin is becoming appreciably reduced. Local tanners in the region of the canaigre followed the home tanners in the use of the root, and in this way larger tanning concerns at a distance became aware of its value and availability. The inquiries which now assail us seek to know where there is a still available supply of the wild canaigre, and, in default of this, how does the cultivated root compare in tannin contents with the wild. Upon the latter question hangs the possibility of profitable introduction of this member of the disreputable dock family as an agricultural crop.

As most of our readers know, the College of Agriculture at Berkeley has maintained upon the University grounds, for the last decade and more, a garden of economic plants. To this garden are brought seeds and plants which are found of local use in all parts of the world. These plants are grown, are always open to the inspection of the public, and their useful parts or products are carefully examined in the laboratory of the Experiment Station to ascertain the percentage of desirable components when subjected to cultivation and other incidents of a new environment. Fortunately for the present demand for definite information, the canaigre root found a place in the University garden as early as 1884 and has been continuously grown since then. In the last report of the Experiment Station, there is a chapter reciting the results of comparative tannin assays of canaigre roots grown in California, by Charles S. Bonner, an agricultural graduate of the class of 1890. Any one desiring the full record of the subject can obtain it free on application to the director of the Agricultural Experiment Station at Berkeley. For our present purpose, it will only be necessary to cite a point or two arrived at by the investigation.

It was found that canaigre in the adobe soil at Berkeley had made a vigorous growth and produced a large quantity of heavy tuberous roots which were thickly clustered at the base of the plant. This is an important point because the native home of the plant is upon dry, sandy soils, which are hardly available for ordinary cultivation. The continuous trial at Berkeley indicates that the root may be grown on ordinary farm soils as well, and perhaps better, than upon waste lands in the arid region, for Mr. Bonner found by analysis that the plant grown in Berkeley stored in its roots an average of 36 per cent of tannin, while various analyses of Texas roots ranged from 26 to 38 per cent. It was also shown that roots dug in May showed more tannin than those dug in March, the inference being that the roots can be dug at any convenient time after flowering.

In connection with the foregoing, it may be stated that according to a letter in the *Irrigation Age* of October, the newly developed irrigation region adjacent to Eddy, New Mexico, is undertaking considerable of an enterprise in growing this root. It is claimed that the wild root has been so diligently gathered during the last two years that the supply has given out, and this is perhaps the reason why so many inquiries as to wild supplies of the plant have been sent to California. It is said that the dried root brings $60 to $80 per ton in Europe, and that local dealers agree to pay $5 per ton for the green root delivered alongside of the railway, and it is anticipated that they may pay even more. Several hundred acres are being planted to meet this demand. From five to ten tons of wild root have been dug to the acre by cheap Mexican labor, and one cultivator claims to have secured above 16 tons per acre from cultivated ground. It is also said that a factory for the extraction of tannin from canaigre root has been started at Deming and others are contemplated, the theory being that, by extracting the tannin and thus avoiding cost of freight and handling a vast amount of worthless matter, the business may be more economically and satisfactorily conducted.

Such, then, is the story of canaigre; a member of a pestiferous family of weeds, whose relatives are the accursed yellow dock and the deadly sorrel, rising above the ignominy of its birth and its family to become an honored and esteemed member of the aristocracy of plants useful to mankind. Its uprising, upon the basis of inherent worth and estimable public services, has bearings above and beyond those to which allusion has been made,

Advice to a California Cowfeeder.

Prof. W. A. Henry, of the Wisconsin Experiment Station, to whom we recently alluded as a leading expounder of feeding upon scientific principles, gives, through the *Live Stock Gazette*, advice to a San Mateo dairyman, who is feeding 220 cows for the production of milk, with feed at the prices stated below: Bran, $15 per ton; middlings, $19.50; oil-meal, $33 50; oat hay, $8; alfalfa, $10. The dairyman asks which of these feeds should be used and in what proportion. The answer is as follows:

As helping us somewhat in discussing this, the following table shows the constituents in most of the feeds named as found by the chemist:

POUNDS OF DIGESTIBLE CONSTITUENTS IN 100 OF FEED.

	Protein, Lbs.	Carbohydrates, Lbs.	Fat, Lbs.
Bran	12 6	44.1	2.9
Middlings	12.2	47.2	2 9
Oilmeal	27.0	32.2	7.1
Alfalfa	7 6	37.8	1.3

Of the three concentrated feeds named, bran is certainly the cheapest in the list, and if the large clean, flakey bran commonly found on the Pacific coast can be secured, let it be supplied with a liberal hand. The millers are apt to blow a good deal of dirt and worthless stuff into the middlings, though this is not always so.

For the general ration try the following: Twelve pounds alfalfa hay, five pounds oat hay, ten pounds wheat bran, two pounds middlings per day. Occasionally, substitute two pounds of oilmeal for the middlings. Oilmeal has an excellent effect upon the animal system and should be fed at times regardless of its mere nutritive constituents. Good alfalfa hay is one of the most natural cow feeds in the world, and when it can be obtained at anything like $10 per ton on the Pacific coast is cheap feed, and should form a large part of the ration.

Fine, bright wild-oat hay is also a good stock feed, and though better adapted to horses than cattle is still appreciated by the latter. It should form a portion of the ration at the low price here named. I have not been able to give an analysis of its constituents, but while on the coast this summer secured a sample which is now in our laboratory awaiting its turn at the hands of the chemist.

Our correspondent is to be congratulated upon the excellence of the list of foods for his stock and the comparatively reasonable prices at which they can be obtained, judging from the prices here quoted. They should be fed with a liberal hand, and if the above given table is used let it be only as a guide, the feeder carefully studying the likes and dislikes of the animals and catering to them. For the most part the cow is about as good a judge of good milk-producing foods as we can find.

These remarks will be read with much interest by our dairymen. The approval of alfalfa will strike a responsive chord in the hearts of interior valley residents who are largely dependent upon such hay and can produce it in unlimited quantity at a minimum price. In the city there is still something of a prejudice against alfalfa hay which we have always believed must result from excessive feeding of it or from too rapid changes in the ration.

We shall be interested to see Prof. Henry's analysis of oat hay from this state. We imagine he misunderstands his correspondent, whom, if we are not mistaken, alluded to tame oat hay rather than wild.

The tribute to the cheapness and excellence of Pacific coast stock feeds is characteristic of Prof. Henry and we hope he will never get tired of putting on record his observations in that line.

Growing Flowering Bulbs.—Eastern instructions for plant-growing do not always fit upon this coast, because of the difference in seasons and in climatic conditions. The intelligent reader can, however, often draw most useful hints from Eastern practices. Such a source of valuable suggestion is a handsome pamphlet just published by J. C. Vaughn, of Chicago, entitled "Flower Bulbs and How to Grow Them," by the well-known E. E. Rexford. It is sent by the publisher postpaid for 50 cents

From an Independent Standpoint.

In a letter which in its entirety is too long for the RURAL'S crowded columns a correspondent asks if it "is altogether magnanimous in a great paper courageous enough to prick a dangerous ulcer to leave its readers in the lurch without suggestion, scheme or plan for the eradication of this pestilential evil?" The RURAL, like critics in general, finds it easier to point out evils than to suggest the means of reforming them; but in the case of this particular evil which our correspondent is quite right to call pestilential, the remedy suggests itself. It is plain that we are receiving from Europe vast numbers of persons whose presence here is a direct damage to our working men and our women, and a serious menace to the American plan of government. To stop this influx would be very easy. Any one of a half a dozen of plans of inspection, the severest of which would fall short of the restriction imposed against the Chinese, would prevent undesirable persons from coming her in any considerable numbers. There would be no practical difficulty in keeping out the ignorant, the vicious and the impoverished if our people were united in the mind to do it—and right here is the difficulty. We have become a nation of moral cowards. We talk glibly enough of the "immigration evil" but when it comes to acting in line with this talk we falter because we are afraid of offending the foreign vote. Neither of the parties dare put in its platform a recommendation to Congress to stop the coming of Irish, German, Italian or Jew because neither has the courage, even for the sake of protecting the highest American interest, to offend the Irish, German, the Italian, or the Jewish vote. By the party leaders immediate political expediency, or what a few politicians deem to be expediency, is held higher than duty to country. Among the men who manage our public affairs there seems to be nobody left who would rather be right than be elected.

Further on in his letter our correspondent says:

Unbiased by the cant and claptrap of stump-speakers, with the heat and passions of the fight passed away, we can judicially review the history of the past and plainly see that the once-threatened Mongolian invasion of this country was never fraught with the perils and menace to our institutions, to our prosperity or our national life that this newer and more insidious foe carries. The Chinese, if ten million strong here, could not nor would not attempt to assimilate with us and debauch and debase our blood and individuality as a people. Their inclinations led them into menial forms of labor where they came less in conflict and competition with American workingmen than any other nationality seeking these shores; and last, but not least, they never attempted to engraft upon us those pleasing European institutions of riot, anarchy, treason and the boycott. Was it patriotism, a regard for American labor, the welfare of the American home that prompted this enthusiasm and the enactments that followed the agitation? Possibly; but I will continue to think that the discovery of a constitutional inhibition against the Mongolian from ever becoming a voter was the most potent factor in the whole matter. Yet when an alien's (Dennis Kearney's) slogan rang out, "The Chinese must go!" how the two political parties did tumble over each other's backs in the scramble to get there first with a preamble, a resolution or a platform denunciatory of the nearly innocuous Chinamen.

Here is a nugget of the purest truth. The Chinese, objectionable as they are in many ways, are ten times to be preferred as immigrants to such material as landed a few days ago from the cholera ships. The Chinaman did, indeed, bring his cheap labor to compete with white labor, but there the evil practically ended. He did not bring with him the schemes or the passions of revolution. He did not debauch the integrity of American ideas. He did not defile our body political or social. *He could not vote*, and so the politician and the demagogue jumped upon him. If the Chinaman was to-day a voter, the political trimmers who are now vieing with each other in denouncing him, and in inventing ways to harrass him, would be cap-in-hand before him just as they are before the several other "elements" of our foreign population.

But our correspondent asks for a "suggestion," "scheme" or "plan" to hold back the tide of European immigration. It is simple and easy—and the simple and easy way is always the best way—to prohibit the landing at any American port of any immigrant unless he could produce a certificate from a commissioner stationed in the country from which he came. Such commissioner should have absolute power, with wide discretion, to grant or withhold permission to enter the United States. He should be instructed to require of each applicant satisfactory proof of good character, and of his ability to maintain himself. This is simple enough, and there is no reason why it would not be entirely practicable if entered into in good faith. But it will not be entered into in good faith till we have a new birth of American independence. It will come in time, because the evil will become intolerable. A few more riots such as we have had this past summer, a few more speeches in Congress like those made by Senator Palmer of Illinois and Senator Voorhees of Indiana and a few more such exposures as that made by the cholera scare and there will be an awakening of public sentiment that will surprise somebody.

The solution of this immigration question, like that of nearly every other public problem, rests not in inherent difficulties, but in the minds of the American people. If we want to keep objectionable elements of population out of our country, we can do it. If we want to reform any one of the evils under which the country suffers, we can do it if we choose to go about it. The reason why we fail is because, as a people, we have become so bound up in our devotion to political parties that we think we can do nothing excepting through their instrumentality. Political parties naturally work for success and naturally are wholly without moral courage. When our people can sufficiently get out from under the domination of the party-whip as to think with freedom and to act without party restraint, then the business of reform will go forward with amazing rapidity. If the RURAL grows tiresome in its reiterated talk about the evils of partisanship, it is because, in its view of things, nothing is so much needed for the health of American ideas and for the health of our Government as a new birth of personal and political independence on the part of citizens generally. There are many encouraging signs that a better era is soon to come. The Peoples' Party movement with all its extravagances; the labor organizations in spite of their revolutionary tendencies; the farmers' Grange with its free discussions of public affairs—all these agencies are educating the people to freer views concerning the questions currently before the country. There are many evidences that party spirit is weakening and that the people are coming to view questions of social and governmental policy upon their merits and without the bias of partisan restriction. This is the true purifying principle in American affairs. When this new spirit has reached the point that political parties can only command popular support *when they are right*, the immigration evil with our other national evils will vanish.

The Eastern Market.

Mr. Mills' Suggestions—Free Discussion of the Transportation Question.

At a regular meeting of the State Board of Trade, held in San Francisco on Tuesday afternoon of the current week, Mr. W. H. Mills, of the Southern Pacific Railroad Co., read a paper designed to explain certain general economic principles as they apply to the present conditions of California.

The *Basis Industry*, of a State or community, Mr. Mills declared to be that specialty in which natural advantages place a certain product beyond reach of competition and in a condition for progressive development, as, for instance, coal and iron in Pennsylvania, corn and hogs in Iowa, etc. California was founded with mining as her basis industry. In the nature of the case, mining can never be a permanent foundation for national wealth. On the other hand, the fertility of our soil and the salubrity of our climate point to horticulture as a basis industry—profitable, permanent, encouraging skill and enterprise, and capable of sustaining fifty times the population of agricultural industries now generally followed in California. Economic production forces markets and builds permanent industries.

Our efforts should be along the line of reaching consumers in the most direct and economical method possible, and, for this reason, should be directed largely to transportation and distribution. Our early fruits reach Eastern consumers as luxuries, and California peaches, to-day, are retailing in New York at seven cents each. At the same time, when we consider the quality of the service and distance, the rates on transcontinental shipments of fruit are the cheapest in America. Present methods of distribution from wholesale centers are costly to consumer, and high prices discourage production by restricting markets. Last year, of the 999 cars routed to Eastern centers, New York received 530 and Philadelphia, a city of half the population and similar conditions, only 11. By the plan of distributing from the wholesale centers, fruit reaches consumers in comparatively poor condition and at high cost, and the plan of direct shipment meets concurrent favor.

Distribution is the office of merchants, not carriers. The market will be commensurate with the importance of the industry. It has reached its highest prosperity the present year. To cut loose from the present system of large distributing centers requires special equipment and special treatment, supplemented by small distributing centers. When this industry becomes so thoroughly systematized as to deserve the name organic, every article will be produced under the most favorable conditions.

In grain-farming, aggregation gives maximum profits and determines tendency. Horticulture is an industry of segregation and promises fifty times the population. All plans have met discouragements and new schemes must expect them. Prof. W. A. Henry, of Madison University, was quoted as having thought, in '86, that our fruit industry was destined to fatal overproduction, and on later visits he had become an enthusiastic investor. He says that Madison is large enough to consume a car of California fruit while it remains in good condition, and only gets what the people bring down in paper sacks when they visit Chicago and the little that is ordered by express for weddings and other grand occasions. The system of handling oysters throughout the East and of distributing ice in the South were given as plans worthy of imitation. When the train stops at a station, they take off the supply ordered for that place and proceed. In this way they distribute such perishable commodities as oysters and ice, and might distribute fruit even to points that could not handle more than 20 boxes at a time the first season. The possibilities of railroad transportation are very dimly understood, yet transportation magnates are very conservative regarding any changes in methods, especially if they involve any extra bookkeeping, such as figuring rates on a car distributed along the line. From the lofty pedestal of their preposterous pretentions they look pityingly down upon the laity as intellectual infants. While the cost of distribution is such that we may fairly say that sixty-two millions of our own people never taste California fruit, we are sending our goods across the ocean to find other consumers at a still greater disadvantage.

MR. MILLS ON THE WITNESS STAND.

At the conclusion of his remarks, Mr. Mills moved that the Board of Trade send an agent East to make examination regarding markets and methods for more direct and economical methods of reducing profit and distance between producer and consumer.

Regarding this proposition, which seemed to meet with favor, Mr. A. A. Hibbard of Chico inquired: "Can we afford it?"

Mr. L. C. McAffee of Kern: "How is the expense to be borne?"

Ex-Gov. Perkins held that our first question must be, what will the transportation cost? There is no question about the wisdom of the abstract proposition of reducing expense between producer and consumer to a minimum. The starting point is to learn to what extent those engaged in transportation will encourage such enterprises. He (Perkins) had enjoyed the consolation of a companion in misery when he joined with Mr. Tevis in shipping a car by the All gretti process, which paid an Irish dividend of $1600. Transportation should be the first question considered.

Mr. C. C. Hutchinson of Lassen thought that the rate to intermediate points was the vital question. Upon his first arrival in California from Kansas he was confronted with the bugbear of overproduction and replied that so far, not one in ten in the East had ever tasted California fruit. The doors of his mill in western Kansas had to be closed because it was the railroad policy to build up Missouri river points, and rates were made that carried the wheat from his door to mills on the Missouri river and the flour past his door again on the way to its market in Colorado. A similar policy had interfered with distribution of fruit. Transportation companies can remedy it. Will they do it? It is not necessary to send a man to Chicago to find that out.

Mr. Mills: No question is so misunderstood and none so badly misrepresented as that of transportation. All these matters are self-adjusting on the basis of that talismanic word which is the open sesame to every railroad heart—"profit." Early in the history of fruit shipments there was no profit in a rate of $1200 per car, because there was no equipment for the service and nothing to supplement large shipments. From the original rate of $1200 it was gradually reduced to $500 to New York and $350 to Chicago, and finally $250 was made a common rate to all points east of the Missouri river because it was profitable. A traffic manager, whose annual report showed that he was fixing such rates as to reduce the business of a road ten per cent, would earn his discharge because it would only take ten years of that policy to destroy the property. If the business of a road increases from one train a day to one train an hour, the effect upon its value as property is much the same as though 23 similar roads had been added without cost. Upon a deserted mill in the upper Sacramento valley surrounded by a deserted country, the speaker saw the legend.

"In God we trust' 'right," said his companion; "He is the only one who has ever done anything for this country." Mr. Mills asserted with considerable emphasis that he owned no railroad and no railroad owned him. He wore no collar. Years hence it would be said that it was a good idea that we had been discussing here to-day.

A suggestion was made by some one that fruitmen try and encourage the system of shipping to dealers' orders and thus avoid loss from glutted markets. After some complimentary remarks as to efficiency in similar missions it was moved to refer the matter to Mr. L. C. McAffee, of Kern.

Mr. Hutchinson, of Lassen, wanted to know the local rates by freight from such points as Ogden, Omaha and Chicago to smaller towns where fruit would be consumed. Fruit consumed in Topeka came from Denver by express at local rates and little was used.

S. J. Stabler, of Sutter, held that it was not the business of the Board of Trade to investigate markets as we had no money to spare. He despaired of any help until we have a competing line and until no company should have the power to subsidize other lines and to corrupt our legislatures.

Mr. McAffee was reminded of the results of a grand dinner which might be summarized chemically as a few ounces of carbon and a few of nitrogen. The Eddystone Light-house never reached Liverpool. We have held up to others the mirror of activity. What are the results of all this talk? Now it appears that there are *one hundred millions* of people in America and England to consume our fruit and that can raise a quantity practically unlimited. How shall we get it to them? This problem lies with the producer and his agents. There is one company really to do the business. They have carried fruit profitably to market. Still no one is in business for his health and all want pay. In an interview with Wells, Fargo, & Co. it appeared that their contracts with the R. R. Co. were such that no one else could deliver the goods at intermediate points. They could see no way to accomplish such results as are outlined in Mr. Mills' plans. When the proposition of carrying fruit to intermediate points by local freight was investigated these mountains became mole hills and objections vanished like the snows of Idaho before the Chinook wind.

Mr. B. M. Lelong, secretary State Board of Horticulture, said that he had acted with committees of producers at Marysville, Fresno, etc. Transportation was the main question in deciding whether such systems are practical. The first requisite is to get cars without delay. The Company must supply them. Have they offered to do anything? Will they put up suitable cars and supply them as needed? There is to be a meeting of the State Horticultural Society at San Jose, Nov. 15th, at which this question will be discussed. Mr. Mills was invited to present these views there.

Secretary Maslin, of the State Board of Trade remarked that the shortage of the present year had been in refrigerator cars only.

Mr. Mills said: The trouble has been to get the cars back. People don't understand the subject and have no conception of its magnitude. If the company owned the cars, half the difficulty would be solved. There are 1700 cars in the trade and they had to move 5000 cars of fruit this year against 3400 cars last year. As to the jurisdiction of the Central Pacific, it ends at Ogden. It is practically a State institution, and as an institution of the State, should be amenable to discipline, and sometimes receive it. Carriers have no voice in distribution. Arrangements should be made with local roads for prompt forwarding. Cost of transit depends on amount of traffic. Bituminous rock is carried from Bakersfield to St. Louis, Chicago, and even to Philadelphia at a lower rate than it reaches San Francisco, because there are mountains of the material, vast quantities demanded at low rates, and the road wants to do the business. Ice goes from Boca to Fresno for $4 per ton. In short, rates are made to fit conditions, and, for business reasons purely, fruit rates have dropped from $1200 to $250 per car. The problem of transportation is not the great impediment to growth of business and Mr. McAffee gained a wrong impression of conditions from his interview with Wells, Fargo & Co. Legislative regulations are a right and proper thing. Low rates will surely follow large tonnage.

Mr. Lelong said that transportation after all is the great question. Some years since, at a convention of growers, it was proposed to offer the railroad company one-half the gross proceeds for carrying and marketing the fruit. Senator Stanford replied that he was not in the peddling business. It was supposed by fruitgrowers that as the railroad company had reliable agencies everywhere they could do the business to better advantage than others.

Mr. Fisher rose to supplement Mr. Mills' idea of producers owning their cars. Armour & Co., Swift, and several other firms of wholesale butchers own about 5000 cars each and are able to distribute products and control trade. It would be well to formulate some plan by which owners of fruit districts would unite in ownership of cars necessary to move their united crops.

Mr. McAffee introduced three resolutions, embodying these issues: 1st, Approval of Mills' plan; 2d, Enquire as to best methods for its execution; 3d, Who can best undertake to carry it out?

Mr. Stabler, of Sutter, declared that we must go to distributing points, and suggested that 250 copies of the report of proceedings of this meeting be sent to San Jose on Nov. 15th for members of the State Horticultural Society. The McAffee resolutions were adopted.

Secretary Lelong moved that Mr. Mills be requested to attend the San Jose meeting. It was objected that his engagements with the Press Club at Pasadena would interfere, but it was hoped that he might attend at some later day of the session.

Pres. Gregory suggested that the matter of "Cooperative Ownership of Fruit Cars" be brought up at a later meeting.

Mr. McAffee moved its reference to a committee of three identified with transportation interests.

Mr. Frank Kimball, of National City, rose to supplement Mr.

Mills' remarks about Prof. Henry, who was thoroughly convinced when his attention was first called to semitropical fruits, that they would soon glut the markets. As he wanted some of San Diego climate, where he could retire to spend the evening of his manhood, he finally offered $100 per acre for 20 acres of such land as was then selling for $250 per acre, on condition that Mr. Kimball would take it back after five years at the same rate, if it proved unsatisfactory. The chance to make a hopeful oonvert was appreciated, and the offer promptly accepted. Prof. Henry had the sagebrush cleared away and the land planted to lemons, three years since. Now, he don't care to give up the land, for he received $200 per acre for his last crop of lemons and is among the most enthusiastic of the fruitgrowers of San Diego. He was much pleased with Mr. Mills' elucidation of the subject. In an interview with the late Chas. Crocker, when the rate on fruit was $1200 per car, he (Mr. Kimball) expressed the hope that a less rate might result in greater traffic, and was answered that he would never see fruit carried for less than $1000 per car. The discussion waxed very hot, and Mr. Kimball prophesied that he would, some day, be glad to carry four cars and possibly five for $1000. He has since had the pleasure of seeing Mr. Crocker's representatives seeking freight at $165, and hopes to see the service rendered for $50.

Thus ended a discussion in which the railroad company, through Mr. Mills, came face to face with the producers.

The Stockton Fair.

From Our Special Correspondent.

Stockton people have shown by building so fine a pavilion and laying out their kite-shaped track with all the conveniences that go to make an agricultural park attractive, that they appreciate the rare advantages of their location and are willing to let the world know what they can do.

THE STOCK PARADE.

This was led by a fine display of carriage teams, single and double, among which those of Messrs. Shippee & Doak attracted special attention. A very commendable understanding of the true object of a fair was shown by a procession of stallions with their families, also brood mares and colts. They realize that the first object of a fair is to learn how to produce valuable animals. Jacks and jennets were represented by many fine animals, which shows that breeders appreciate the fact that good animals are always ready sale even when the country is overstocked with the class of horses that must go begging for buyers.

HOLSTEINS.—This popular dairy breed was represented by two fine herds. One was the well-known prize herd of F. H. Burke of Menlo Park, that took so many blue ribbons at the State Fair, and a fine herd from the State Insane Asylum. They have bought some fine animals from the Stanford herd, and besides their blooded stock have about a hundred grade Holsteins. Ed. Younger was there with his famous herd of Durhams from San Jose, that all visitors at the State Fair, since early days, remember as having been shown with so much pride by that old-style Kentucky gentleman, the late lamented Col. Younger.

Dr. Dixon was there with his show herd of Aberdeen-Angus that took sweepstakes at the State Fair, over all breeds as the best herd of beef cattle.

There was only one herd of swine shown, and all prizes were given them. Farmers don't seem to realize that we are buying most of our pork from distant States where the profits of swine are so highly appreciated that they speak of the hog as the banker. We submit to directors the suggestion that a single exhibitor deserves marked recognition for his enterprise, but that some provision should be made in such cases to avoid giving premiums to animals that are not excellent representative of their breeds.

THE PAVILION.

The display was particularly fine in fruit put on plates, and all carefully classified in a way to enable the amateur grower to accumulate much practical information. John Northrup from Amador was there, and the boys want to talk with the old man, for he is not only posted as to varieties and methods of production, but he has been there and knows how to get a price for what he raises by making it worth a price and then dealing as directly as possible with somebody who has use for the goods.

The famous Hatch Armstrong Company, who are among the largest and most enterprising fruit-growers in the world, made a fine exhibit and showed that they are going into the business with that kind of energy that has made Chicago more talked of than any city in America. We welcome the new blood, and see in it not only the impetus arising from their extensive enterprise, but a contagious enthusiasm. Senator Langford and his son George made a fine display from their model orchard near Clements. Your correspondent saw that orchard and knew at a glance that Senator Langford had found out that it was foreordained for a peach orchard from the beginning. One seldom sees a place so exactly adapted in all its conditions to the purpose for which it is used.

RAMIE.—There was an exhibit of machinery in operation that settled the problem of extracting the fiber. It can be done quite rapidly and thoroughly, at a small cost, when the stalk is so dry as it becomes in this rainless climate. Another process, equally satisfactory, separates the gum from the fiber and makes it fit to produce any of the fabrics shown, ranging from a potato-sack to a silk-like handkerchief or a lady's fine veil. The fiber has a strength and durability unknown to almost any other, and experiments indicate that it has found its home in the reclaimed tule lands about Stockton. It is receiving considerable attention from practical farmers, and is a subject of scientific experiment at our culture stations. Mr. R. R. Smith, living five miles from Stockton, has five acres planted and is very enthusiastic in his hopes of ramie.

RICE.—A plant was on exhibition, and renewed the inquiry that has so often arisen in our mind, why don't they raise rice on the river and reclaimed tule lands.

THE BANANA.—Mr. David Tola has a plant near the Jackson gas well, that was planted in 1890 and is now bearing fruit. If you tell a Stockton man that any climate on earth excels his, you might as well get ready for a visit to that banana and be prepared to take a back seat.

Vineyard-Pasturing and Coulure.

FRESNO, CAL., Oct. 7, 1892.

TO THE EDITOR:—I notice in your issue of October 1st, page 274, the statement of Special Agent N. B. Pierce with regard to feeding off grape leaves with sheep, to which he attributes the coulure of 50 per cent of the first crop this season. While there is a wide difference of opinion among vineyardists as to the true cause or causes, no one, who practically understands the situation here, attributes it, in whole or in part, to that cause. I know of three vineyards adjoining each other, and practically of the same soil and same age, pruned and cultivated substantially in the same manner, that have been pastured by sheep every year since they were planted, and in which there was a wide range of percentage in coulure. In the immediate neighborhood, land of the same character and all the conditions substantially the same, older vineyards, that have never been pastured, suffered from coulure fully as much as those that had been pastured; in fact, no expert could, by any means, determine by the coulure whether the vineyard had been pastured or not. I do not pretend to combat Mr. Pierce's theory, set forth in his statement, but suggest that, if he expects to prove it by the coulure in Fresno the present year, he will, at best, only get a Scotch verdict of "Not Proven."

N. L. F. BACHMAN.

[This is just the kind of evidence needed for the determination of such a question. The theory of the thing is well enough, but its announcement should be accompanied by demonstration, as we stated in the comments to which our correspondent alludes. Now, is other observation like that of Mr. Bachman?—ED. PRESS.]

Preparing for the Fruitgrowers' Convention.

The fruitgrowers' convention at San Jose, Nov. 15 to 18, promises to be a grand affair. Local meetings in preparation for the convention are now being held in San Jose weekly. On October 8th Secretary Lelong went down to consult with the local committee. According to reports in the local papers, there were present Chairman R. P. McGlincy, S. P. Sanders, J. S. Selby, D. C. Vestal, G. W. Worthen, J. R. Holland, W. H. Gilmore, H. A. Brainard, James A. Clayton, J. H. Flickinger, Wilber F. Parker (local quarantine officer), and B. M. Lelong, Secretary of the State Board of Horticulture. H. A. Brainard was chosen Assistant Secretary.

B. M. Lelong urged the committee to perfect arrangements for the accommodation of a large number of delegates and to provide means for an inspection of the orchards in this valley by the visitors.

Turn Verein hall was favored as a meeting place, but the matter was left with a committee appointed for that purpose.

S. F. Lieb was chosen to deliver the address of welcome. A committee consisting of Col. A. K. Whitton, G. W. Worthen and D. C. Vestal was appointed to arrange for the best comfort obtainable for the visitors.

Mr. Lelong objected to a banquet and suggested that a reception at the hall would be the proper thing. An excellent plan would be to request those present at the reception, who wished to meet any from other counties, to hand the names to the chairman, who would call the men named to the front, thus giving everybody an opportunity to meet fruitgrowers from other districts. It was decided to give a reception as suggested, and that the entire committee in session and the absent members, consisting of Col. Whitton, Prof. Chas. Allen and A. Block, comprise the committee on reception.

A committee on decorations was appointed as follows: Mesdames Watkins, Brainard, McGlincy, Holland and Saunders.

The following committee on exhibits was chosen: All the members of the general committee, together with Messrs. Wright, Bowman, Flickinger, Dawson, Righter, Gordon, Start, Morrison and Colonel Hersey.

Mr. Lelong stated that the State Board of Horticulture would publish the program to be rendered at the convention about October 20th, and that invitations would be sent to all parts of the State.

He suggested that prominent men be invited to prepare essays upon living topics of interest to the growers, to be read during the convention. W. Tarleton of San Jose was named for the essay on pruning

The growers expect to place on exhibition many of the products of Santa Clara valley, and special exhibits will also come from other parts of the State.

Faster Trains for Fruit.

We published last week several letters from fruitshippers obtained by Mr. Fred C. Miles of Penryn for submission to the State Horticultural Society. The following, signed by J. Z. Anderson and A. Block of San Jose, both large shippers, should be read in connection with those last week:

"We beg to submit that there is no doubt that faster time for fruit shipments would prove a great advantage to the California fruitgrowers and shippers, and has in the early shipments this season. We will say that there is no doubt but that fruit could be picked riper and better, and would realize more and have a more largely extended market throughout the United States provided the railroad company would give better time."

Southern Weather.

LOS ANGELES, Oct. 11.—Observer Franklin reports that the weather has been generally cloudy and foggy during the past week, which has retarded fruit-drying. The English walnut and peanut crops are being rapidly gathered. Citrus fruits are growing nicely. The largest yield ever known here is promised. Raisin-making in San Diego county has been retarded by the weather, but no loss has resulted so far.

An Australian Scymnus Established and Described in California.

A paper read by C. V. RILEY, U. S. Entomologist, at the recent meeting of the Association of Economic Entomologists at Rochester, N. Y.

The rapidity with which the Australian *Vedalia cardinalis* has established itself in California is familiar to every one. But the Vedalia was not the only scale-feeding Coccinellid which was sent or brought over by Mr. Koebele on his first trip to Australia in 1888–9. Among others, he brought several species of the genus *Scymnus* which, in due time, were set at liberty in the vicinity of Los Angeles. One of these, subsequently described by Dr. D. Sharp as *Scymnus restitutor* (*Insect Life*, I, p. 364), was lost sight of, while another much smaller species, originally collected by Mr. Koebele, near Sydney, New South Wales (see Bull. 21, Division of Entomology, p. 24), turned up the present year in a rather amusing way. In the March number of the *Entomological News* (Vol. III, 1892, p. 51), Dr. F. E. Blaisdell describes a new Californian Scymnus under the name of *S. lophanthæ*. He found it preying upon the San Jose scale (*Aspidiotus perniciosus*) which infested the limbs of *Acacia lophantha* at the Coronado parks, near San Diego in southern California. It is a very inconspicuous species of reddish color, the thorax often having an indefinite dark spot on the disk, and the elytra being of a blackish-bronze color. The last-mentioned character is foreign to our native species of Scymnus, which never show any traces of metallic color, and, for this reason, I at once suspected, upon reading the description, that *S. lophanthæ* was one of the species introduced from Australia. Upon comparing Dr. Blaisdell's description with the sample specimens sent by Mr. Koebele from his first and second trips to Australia, I had no difficulty in identifying *S. lophanthæ* with the species from Sydney mentioned above. Sebsequently, Mr. D. W. Coquillett sent me a specimen recently captured near Los Angeles which fully confirmed this identification. Whether or not the species has been previously described from Australia, I have no special means of knowing, but it does not appear to be among those described by Mr. Blackburn in 1889 (Trans. etc., Royal Society South Australia, XI, pp. 191–198). It is closely allied to *S. fagus* Brown, from New Zealand, and distinguished therefrom only by its finer and sparser elytral punctuations and the greater extent of the pale thoracic color.

Dr. Blaisdell does not mention in his description the structural characters of the species, the more important of which are as follows: Prosternal lines long, straight and converging slightly anteriorly; postmesocoxal line slightly reascending externally; postmetacoxal line complete, almost reaching the first abdominal suture; elytral epipleuræ horizontal, reaching beyond third abdominal segment, slightly concave; inner marginal line not leaving the margin.

The beetle and its larvæ are quite abundant in the Coronado parks, according to Dr. Blaisdell; and since it also occurs near Los Angeles, there can be no doubt that this useful little Coccinellid has fully established itself in southern California.

Alameda County Farmers' Institute.

The meeting of the Alameda County Farmers' Institute to be held at Niles, October 15th, promises to be one of unusual interest, as will be seen by the program given below. The institute is in no way connected with politics, as has been often stated before, and nothing may be discussed that is not directly related to farming matters. The connection with the State University and the readiness of the Stanford University to help, enables the officers to have several trained specialists on the program, and, as numbers of practical fruitgrowers have agreed to assist, there will be a great deal of valuable information to be had for the listening. All the meetings are free, and all farmers and others are welcome.

The institute will be conducted by Prof. E. J. Wickson of the State University and the sessions will open at 10 A. M. The following is the program for the day; each subject presented will be open for discussion:

Opening address, E. J. Wickson; "Tree Planting," W. W. Brier; "Fruit Shipping," Thomas Russel.

1 P. M.—"Insect Friends," Willis S. Johnson, instructor of entomology at Stanford University; "Insectivorous Birds," William W. Price, Palo Alto; recitation H. Overacker; "Scale Insects," C. W. Woodworth, assistant professor of entomology, State University.

7:30 P. M.—"Figs, their Hardness and Productiveness," C. H. Shinn; "Horticulture in the Old World," J. P. Smith; essay, Mrs. Fleda Bunting.

Mr. Johnson will bring specimens of insects and Mr. Price of birds, so that their hearers will be enabled to know by sight the ones mentioned, and Mr. Shinn will bring branches showing the effects of frost upon different varieties of figs.

THE last rails on the Bakersfield and San Miguel R. R., connecting with Asphalto, were laid last week. The men are now ballasting. Asphalto is 49 miles from Bakersfield. The completion of this road marks the enlargement of what is to be one of the most material interests of Kern—the oil and asphalt industry. The road to market is now at their very doors and prosperity is sure to attend them. Stevens station, 16 miles from Bakersfield, will be the shipping point for the oil, asphalt, sulphur, kaolin and other minerals of the Hazelton (Sunset) district, as well as of the lands to the south, and the junction point of oil-pipe lines from that district. The Buena Vista Reservoir railroad, with its 12 miles of road completed, needs only 10 miles to form a connection with this branch of the world. Everything argues in favor of the completion of this branch, as, independent of the large freight in oil, asphalt and minerals to come over it, the cattle, wool, sheep, grain and hay of the San Emigdio, La Carissa and other grants will find thence a convenient outlet.

CEREAL CROPS.

The World's Wheat Crop This Year and Last.

Last season it was generally admitted that the task of correctly forecasting the course of prospective supply and demand would be extremely difficult, and so it proved. The record was broken on several occasions, more especially in the volume of wheat that India and America proved themselves capable of shipping, and on the other side in the absorption by France and Germany of hitherto unheard of quantities of breadstuffs. The variation in the rate of freight, and the extraordinary depth to which the price of silver sank surpassed likewise all expectation. The extreme range of freights from the Black sea last season exceeded 30s. per ton, in a few extreme cases the variation amounted to 37s. 6d., equal to 8s. per qr. Silver fell to 38d. per oz. from 54d. per oz. in 1890, which means that the British sovereign is capable now of commanding 16 rupees worth of wheat compared with 12 rupees worth two years ago, or 14 rupees worth on an average in recent years.

Such difficulties are not so apparent this season. The situation being in a state of exceptional quietude, one is able to take an undisturbed view around and to build a fabric of statistics upon a sound, if somewhat abnormal, basis.

Reckoning the cereal year from the first August, 1892, to he 31st July, 1893, will avoid cutting into odd fragments of years. By the 1st August the great crops of America Russia, France, Hungary, Roumania, Italy and Spain are usually all ready to come upon the markets, the British crop following as a rule about a fortnight later, therefore the 31st July seems to be the natural date upon which to terminate the cereal year.

The first consideration must be the state of reserves of breadstuffs in the chief countries, which will be found to compare as follows with a year ago:

	1st August 1892.	1891.
*America and Canada, bushels	48 300,000	31 600,000
United Kingdom	26 000,000	12,100,000
France	10,000,000	10,000,000
Belgium, Germany and Holland	5.500,000	12,000,000
Russian ports	8,000,000	6,000,000
Afloat	24 000,000	38,000,000
Total, bushels	122 800,000	109,700,000

*Rather more points counted now than a year ago.

The agregate stock of wheat carried over into the new season this year by several countries is undoubtedly extremely light, exception being made in the cases of the U. K., France and Germany, where the total this season of 42,000,000 bushels only comprises part of the reserves, much, owing to known causes, being invisible at this date. The American stock being taken at more points is, on the other hand, not a fair comparison with last season's total, the difference instead of being 17,000,000 bushels should only be about 9,000,000 bushels. The total of the reserves of all countries, counting the depleted visible and invisible stocks of such countries as Italy, Spain, Portugal, etc.—without, however, saying anything of India, where the deficiency as compared with last year must amount to ten or twenty million bushels, would probably be found to be as light or lighter than a year ago.

On the whole then it may be placed on record that the reserves of old wheat on the 1st August, 1892, were light, particular exception being made in the cases of the U. K., France and Germany.

It would seem now to be in order to reckon up the crops lately harvested and to compare them with the yields of last season, and for present purposes it will be better if we include in this sum only those crops about which official data are obtainable. The chief crops of wheat already known are the following:

	1892.	1891.
U. S. A., bushels	*495,000,000	611,000,000
Canada	55 000,000	62,000,000
India	217,000,000	276,000,000
France	†312,000,000	213,000,000
Austria-Hungary	176,000,000	168,000,000
Italy	111 000,000	138,000 000
Total, bushels	1,366,000,000	1,468,000,000

Deficiency this season, 102,000,000 bushels.
*Preliminary.
†Likely to be reduced 16,000,000 bushels at the next count.

A deficiency of 102,000,000 bushels, or 13,000 000 qrs., in the five chief crops cannot be turned into surplus by any addition to our knowledge of the outturn of the remaining crops of Europe, not even counting the Russian. The total outturn of the crops of Russia, Germany, Great Britain, Spain, Portugal, etc., may be estimated from commercial or semiofficial returns as follows:

	1892.	1891.
Russia and Poland, bushels	215.000,000	180,000,000
Germany	100,000,000	86,000,000
Great Britain	67,000,000	75.000,000
Spain and Portugal	80,000,000	78,000,000
Roumania	52,000,000	50,000,000
Bulgaria	27,000,000	24,000,000
Turkey-in-Europe	26,000,000	24,000,000
Turkey-in-Asia	.....	.....
Roumelia	13,000,000	11,000,000
Servia	5,000,000	4,000,000
Belgium	19 000,000	15.000,000
Holland	7 000,000	5,000 000
Denmark	5,000,000	4,500,000
Sweden and Norway	5,000,000	4,000,000
Switzerland	3,500,000	2,400 000
Greece	4,000,000	4,000,000
Argentina	37 000,000	33.000,000
Chili	16.000,000	15,000.000
North Africa	34,000,000	44,000 000
Australia	34 000,000	32 000 000
Total, bushels	749,500,000	690,900,000

In these countries, where we have to depend upon estimates for the result of the crops, it will be seen that there is a surplus compared with last season's yield of 58,000,000 bushels. Adding the two totals together we have the following figure as representing the approximate yield of the world's crop:

	1892.	1891.
Six countries—actual official returns, bushels	1,366,000,000	1,469,000,000
Remaining countries — unofficial estimates, bushels	749,000,000	691,000,000
Grand total, bushels	2,115 000,000	2,160,000,000
Grand total, quarters	264,000,000	280 000,000

N. B.—It has been thought best to leave out of consideration altogether the crop of Asia Minor, which is variously estimated at from six to fourteen million quarters.—Corn Trade News.

THE DAIRY.

The Shorthorn Dairy Test at Syracuse.

Following is a report of the Shorthorn dairy contest at the New York State Fair, Sept. 8 to 15th. The test extended through two days, the milk being tested by the Babcock tester. There were five entries, as follows: G H. Bell, Rome, Nelly Bly 3d, 12 years old; A. Morse, Oxford, Maid of Oxford, 9 years old; A. Morse, Oxford, Maid of Oxford 5th, 3 years old; S. Spencer & Son, Kiantone, Fillpail 7th, 6 years old; S. Spencer & Son, Kiantone, Kitty Clay 5th, 5 years old. Spencer & Son withdrew Kitty Clay 5th from the contest, as she had been in milk only one day when the test commenced.

	Total milk. Lbs.	ozs.	Total lbs. butter fats.	No. days cows had been in milk.
Nelly Bly 3d	68	14	2 29	42
Fillpail 7th	84	7	2.63	29
Maid of Oxford	62	13	2.31	2 2
Maid of Oxford 5th	59	12	2.17	74

Spencer & Son were awarded first prize on Fillpail 7th, and A. Morse second on Maid of Oxford.

The first-prize cow at the New York State Fair gave 5½ pounds more milk in two days than the first-prize cow at Sacramento, or, at any rate, the one that gave most milk, and 12 pounds more milk than the second best at the same place, where the competition in butter fat was very close, Mr. Peterson's cow beating Mr. Hill's by less than 3-100 of a pound of butter fat in the milk of two days. All three of the cows had been in milk about the same length of time.

It will be observed that the second best cow in the above table, Maid of Oxford, had been in milk 202 days—173 days longer than the first-prize cow—for which, under present rules, no allowance is made, otherwise Maid of Oxford might have been considered to be the best cow.

This is a matter that ought to be corrected in some way, and we would respectfully suggest that the Board of Directors of the Shorthorn Breeders' Association take the matter into consideration before another show season. As it is now, it looks too much like giving a premium to the man who manages, whether by chance or otherwise, to have his cows calving just at the right time for doing their best at fair-time.

As a matter of course, so long as the premiums are awarded as at present, there is a certain amount of credit due to men who do manage to have their best cows calving about the time there will be most profit derived from them in any way they may see fit.

The plan adopted at the London Dairy Show (England) is to count one point for every ten days since calving after the first 20 days; one point for each pound of milk a day; twenty points for each pound of fat, and four points for each pound of solids other than fat per day. When the milk contains less than three per cent of fat, ten points are deducted.

By referring to the performances of the prize cows at the last London Dairy show, held in 1890, we find that the three cows with the greatest number of points were Shorthorns, the best of them giving 2 26 pounds of fat and 5 17 pounds of casein, etc., in one day. The next best in solids was a Guernsey cow with 2 pounds fat and 4 40 pounds casein, etc.

We are of opinion that this latter breed of cows ought to stand higher in the estimation of dairymen, and cannot think how it is that bulls of the breed have not been more sought after. Besides having a reputation for giving rich milk and a good quantity of it, the cows have fair size and weight of carcass, big enough for ordinary dairy purposes under the management generally accorded them on butter and cheese dairies.

The quantity of solids in the milk at the London Dairy Show is obtained by analysis, which method is generally supposed to be correct; but even in this, "doctors differ," as an instance of which we quote a case from *The Dairy* (English), which says:

A case of remarkable interest to dairy people was heard at Westminster Police Court, London. Briefly the facts were as follows: A Mr. Wright was charged with abstraction of cream from milk. The prosecuting analyst swore positively that at least 12 per cent of cream had been abstracted, the defending analyst stated that the milk might be pure, though poor, and lastly Somerset House analysts said it was only 5 per cent deficient in fat. Beyond these grave disagreements, it further appeared that one analyst fixed pure milk at 3 per cent fat, at the same time condemning the Somerset House analysis as useless, while the other fixed the limit at 2½ per cent. The case ended in the dismissal of the summons with costs; indeed, the only way in which it could end. Now, this case reveals a condition of things which most closely affects all who deal with milk, either as buyers or sellers. It clearly shows that any one of us is exposed to the danger of having our character for commercial honesty weighed in a balance which gives results widely varying according to the hand that supports it.

The above is, briefly, an example on the difficulty of detecting added water to milk. It is well known that there is pure milk, straight from the cow, that falls below the standard for purity without water being added, while there are cows that give milk far above the standard quality, say 12 per cent solids, which will bear some considerable dilution and yet be of better average quality than the pure, poor milk. Poor cows and poor feed will make an inferior quality of milk without the aid of the pump-handle.

Oregon Dairymen's Association.

Our sister State has taken a step in advance of us. While California organized a State Dairymen's Association more than a decade ago, it was allowed to lapse into innocuous desuetude. Oregon takes a fresh start and will probably hold to it, and perhaps California will revive by the force of so good an example.

The *Rural Northwest* states that a meeting of dairymen was held at the institute tent at the State Fair grounds at Salem, Wednesday evening, Sept. 14th, for the purpose of effecting an organization of a State Dairymen's Association.

Mr. C. H. Schmidt spoke briefly but forcibly of the neglected and critical condition of the dairy interests of the State; of the large importations of Eastern butter, the high price of winter butter in this section and the necessity and propriety of fostering and developing this home industry. He also spoke of the work there is for an organization of this kind to do, and called a vote upon the question of organizing, which resulted unanimously in favor of such an organization.

Articles of association were then adopted.

The matter of electing officers being in order, Mr. C. H. Schmidt, in an eloquent manner, placed in nomination Hon. J. B Looney, of Jefferson, as a man eminently fitted for the position of president. Mr. Looney was unanimously elected. The other officers elected were as follows: Vice-president, Geo. W. Weeks, of Howell; treasurer, Warren Cranston, of Salem; Secretary, H. M. Williamson, of the *Rural Northwest*, Portland.

In consideration of the services rendered to the cause of dairying by Col T. R. Cornelius, of Cornelius, who was not only a pioneer in the settlement of Oregon, but has also been a pioneer in the introduction of modern dairying methods of Oregon, he was, by unanimous vote, elected an honorary member of the association. The convention then adjourned

SHEEP AND WOOL.

Sheep on Foothill Slopes and Mountain Meadows.

Hu Maxwell writes for the Fresno *Expositor* an article on the above subject which contains many indications of close observation and logical deduction. This point will be conceded, we think, by all who follow the writer. Whether the injury done is more or less desirable than the alternative he presents in his closing sentence, will find answer according to individual interest and inclination. The article is certainly very interesting:

The effects of the sheep on the physical geography of the Sierra Nevada mountains is seen mostly in the lower ridges among the foothills.

The testimony of others must be taken in order to arrive at a full knowledge of what this effect is; for a person in traveling through the foothills may observe the present condition of the land, but he cannot know in what manner the present differs from the past unless he can remember many years, or unless he is told by those who can remember. But there can be little doubt that the custom of pasturing sheep on the country has had the effect of changing the condition of things very materially from what it was 30 or 40 years ago, before the herds of sheep had been introduced into the country.

Old men say that many years ago the wild grasses and weeds grew much more luxuriantly among the foothills, below the region of the pines, than is now the case. It is said that the ground was well-covered with a growth that protected the soil from the excessive washings of rains. The roots formed something of a matting beneath, and held the sand and the gravel and the vegetable mold together, and the rains of winter had far less effect than now in washing the soil down.

But with the coming of sheep in such vast herds this wild grass and weeds were in a measure destroyed. The continued pasturage of so many flocks eat up the verdure and trampled it down, until at the present day the growth is much less than formerly.

Perhaps the greatest work of the sheep in destroying and hindering the grass is that they eat the seed in the summer that should remain for the rains and then sprout and grow. But sheep not only nibble the ripened pods and heads from the grasses and plants, but they often lick up the seeds that have already fallen to the ground.

The effect of this in any one year may not be so much, but when it is continued season after season for 20 or 30 years, it must have more or less effect in killing out and destroying certain kinds of grasses and plants that depend upon seed for their propagation and existence. People say that many hillsides are now barren, which formerly were covered in winter with green, and in summer with dry vegetation.

The result of this denudation is easily understood. The dashing rains of the winter wash the loosened and unprotected soil down into the gullies and the little valleys. By this means the hillsides are rendered barren and unproductive, and the grass, deprived of the fertile soil, becomes more and more scattering, and less and less luxuriant.

It is a habit of sheep in their wanderings through a hilly country to travel along the sides of the hills, rather than up and down. By so doing they trample paths, one above another, running in horizontal and parallel terraces. The appearance of a hillside thus trampled is that of a series of benches, one above another.

When the rains of winter come, these paths collect the waters until it overflows into the next path below, and on down, from one to another, until it reaches the bottom of the hill; and the result is that a gully is soon cut down the side of the hill.

It is a natural result that these gullies constantly grow deeper. When once begun, they always increase. Every

rain washes soil, sand and gravel from their banks, and a small gully soon becomes a large one.

This is seen mostly among the foothills. Farther back in the mountains there usually are so many large rocks in the soil that sheep are unable to tramp these parallel paths, and even if they could do so, the rocks would hinder the washing of gullies, except in a few cases here and there, where the conditions were favorable.

But, while the pasturage of the large bands of sheep have undoubtedly had much to do with destroying or hindering the growth of wild grasses, yet, in one instance at least, the sheep are responsible for the spread of a grass that is of more value than any of the grasses destroyed.

This is alfileria, commonly called by its abbreviated name "fileree." This grass is not a native of California. It was most probably brought here from the southern countries of Europe. At any rate, it was not here when the Spanish first came.

Its spread over the country is somewhat remarkable; and, while many agencies were instrumental in causing its spread, there is no doubt but that sheep did the most. Without them, this grass would not have been so universal as it is now.

Sheep carried away the alfileria seed in their wool from one place to another. If a band of sheep would sleep one night in the ripened alfileria, their wool would be laden with the seed, and for the next few days, or perhaps for the next two months, they would drop the seed along all the paths they might travel.

By this means the grass has been scattered over all the hills, and as far into the mountains as it can grow. Bunches of it may be found far back in the Sierra Nevadas along the sheep trails where the soil is such that it can grow. A few patches of it may be found almost to the summits.

If a person is looking for the effects of sheep in the mountains, beyond the foothills, the most visible effects will be seen in the meadows.

There can be no doubt but that the constant pasturing of sheep has injured these meadows a great deal, and has brought about a change by no means theoretical.

In some of these meadows the grass is almost destroyed by the constant nibbling and the incessant trampling of the herds. The summers are short, and it naturally requires about the whole of it for the grass to grow and mature, even if it is not interfered with. Then, when it is incessantly nibbled off by the ever-hungry herds, it cannot mature, and it must grow from the root, if at all, for no seeds are ripened. In one or two seasons perhaps no bad results might be seen, but in the course of a large number of successive years the effect must be that the grass will be killed.

In some meadows, where the soil is sandy, the grass is now about destroyed. In others, where the swampy nature of the ground keeps the sheep off till late in the season, the growth of vegetation has not suffered so much.

Persons acquainted in the mountains many years ago, before the sheep were taken there, say that in the meadows the grass and weeds were waist deep.

Deer could hide in the tall vegetation; but now, where the sheep have been, the growth is seldom rank enough to hide a rabbit. The principal source of food for the sheep is in these meadows and around the borders, and the sheep make their rendezvous there in the summer, and the grass cannot but suffer in consequence. The snow disappears from the meadows earlier than from the face of the higher mountains, and of course the feed is found earliest there.

A few remnants may be found here and there to show what the primitive condition of the mountain meadows was before the coming of the sheep. Here and there among the more rugged mountains a small meadow may be found, so surrounded by cliffs and precipices that the sheep cannot get into it. Here the grass and weeds still grow luxuriantly, and sometimes it is a difficult matter to make way across the meadows on foot, on account of the deep-tangled grass and weeds.

It may be presumed that all the mountain meadows were in that condition before the coming of the sheep; but these meadows still remaining in their primitive condition are very few, for so many are the sheep in the mountains, and so persistent do the herders search for feed, that no meadow escapes, unless, as already said, it is so situated that the sheep cannot reach it.

It is an interesting study, when one of these few remaining patches is found, to consider the original condition of the fine mountain meadows with a growth of vegetation which, in the short summer, almost equaled the verdure of the tropics. Undisturbed by man, the deer were plentiful, and it is said that in the early times, a person who would come suddenly upon one of these meadows often could see several deer running off.

If the national park should be made, and the country restored to nature, it is probable that in the course of time these meadows would regain their former state and be overgrown with tall grass, and there would be plenty of deer among them. The few bears still in the mountains would be given a chance for empire again, and in the course of years these beasts would be plentiful once more if hunters would let them alone.

With the sheep removed from the ranges of the Sierra Nevadas, there can be no doubt but that some changes would take place. The meadows and some of the ridges would gradually regain at least a portion of their lost vegetation. Wild game would increase in numbers. Many of the trails would grow up and disappear. By the aid of the fish commission, many of the streams—perhaps all the large ones—would be stocked with fish, and the country would be one of the finest fishing regions in the world. Soldiers, rangers and other government employes would stand guard at every path, and in order to hunt in the national park a person would require a pass or permit, like those required in order to hunt in European forests.

The sheep would be gone, and whether the rivers would carry down more water in the late summer than they do now, and whether the snow would be deeper and longer than at present; whether the forest fires would do less damage than now; and whether the hunting of deer and bear would be as profitable then as the herding of sheep is now; and whether the presence of soldiers on every mountain-path is a "consummation devoutly to be wished"—all of these matters are open for discussion by the friends and foes of the national park reserve.

THE STABLE.

Weaning Foals.

It is now about the time of year that most of the colts bred by farmers are weaned from the mares. This should always be brought about gradually, and can be done without inconvenience, in the case of working mares, by keeping the colts in the stable during the time the mares are at work.

It is a regular practice with some farmers to let the foals run with the mares while at work, a custom which has not the approval of our most successful horsebreeders.

It is better for the mare, and also better for the foal, that the latter should be left at home in a suitable boxstall, with a little choice food to nibble at as inclination prompts.

Before being weaned they should be taught to lead, which is really very little trouble when they are so young. We have seen some otherwise good horsemen put a halter on to a colt and try to lead him at once, but this often results in the colt throwing himself about a good deal and sometimes going over backward, at great risk of injury; in fact, we once came upon one that had been badly stunned by falling on the back of its head. Two men had attempted to lead it, after the manner named, at the risk of its life.

In our experience, the best way is to first tie them securely in a well-bedded stall, taking care that everything, halter, rope, etc., is strong and secure; then make fast before the colt has a chance to feel that it is tied, so that, on the first pull, nothing is likely to give way.

Let him pull as much as he will (taking care that he is so tied that he cannot hurt himself) and as long as he wants to. Some colts will give in after taking two or three good pulls on the halter; others, again, may prove obstinate, and will try more and longer. In any case, it is just as well to leave them tied 24 hours before attempting to lead them, and some that we have seen left tied for two whole days never pulled on the rope when taken out to be led. Some trouble should also be taken to let them know that there is nothing to hurt them, by making friends and handling them as soon as they have done the worst of the pulling. Colts treated in this way will seldom, if ever, afterward pull on a rope, either when being led or in the stall, and those raised on work mares are generally made tractable through the handling they get when around the stable, and are ever afterward ready to be caught and led when and wherever one wants them, a most convenient feature connected with early halter-breaking, which some farmers are liable to neglect.

In the meantime the feeding of the colt will have been attended to in such a way that it will not feel the loss of its mother's milk when entirely separated from her. A good deal depends on the first year's feeding for developing the good points in a colt; that is, he should be well fed from weaning time till there is good grass to turn him into, and on which alone a good growth will be kept up till he is a year and a half old, when a second winter of his life will be upon him, during which he should be kept growing by suitable feeding till another grass season comes round. Any check in the growth by stinted feeding can never be truly recovered; it is only by continuous growth that perfect development of bone and muscle can be obtained.

When on pasture, the feet will have to be attended to occasionally, as the hoofs are liable to break, crack or split, and the projecting pieces should be cut off before further injury is done. Sometimes a split occurs near the heel, which, if not attended to in time, may break right up into the fleshy part of the foot. In a case of this kind, the advantages of early handling will be appreciated on both sides.

We have more than once seen the feet of colts held up while a split piece of hoof, near the heel, has been cut off with a small, fine-toothed saw—a tool that all stockmen should keep by them, for it is equally useful in cutting the feet of cattle when they become in any way deformed or out of shape.

Colts that have been treated on the lines indicated will cause little trouble when old enough to be put to work; they merely want to be taught, not broke.

The Mule.

The mule has an important place in California agriculture, and in the rather delicate work of cultivation in orchard and vineyard stands especially high. The following from the *Farmer's Review* will therefore be read with wide interest:

The hybrid animal which is part horse and part ass evinces, more than any other such cross perhaps, all the distinguishing characteristics of both the parents. He has all the good qualities of the horse, some, however, being modified by the interfering tendency of those of the ass. Thus he has the strength, size and form, with much of the sagacity and docility of the dam, and the obstinacy, in good as well as bad, of the sire, with his hardiness, longevity, surefootedness, untiring patience and robust constitution. A mule is said and thought to be extremely obstinate, proverbially so; but this quality in this animal has its most useful development, for to it is due the fact that a mule never balks, but persists in pulling until he lies down for inability to use another muscle. It begins work earlier and continues longer by several years than a horse; it is rarely ever sick, and, generally, unless wofully misused, has nothing the matter with it from the time it begins to work at three years old until it is discarded at the age of 40. Mules have been known to live and work more than 40 or 50 years without any rest by summer-pasturing, but constant tugging of heavy loads on mountain-roads throughout the entire years. Their digestion is remarkably strong, and their appetite is easily satisfied. In the absence of its usual corn and blade fodder, it will most contentedly make a meal of the bark of a tree cut for the purpose on the roadside, where the driver camps at night after 25 miles of heavy pulling, with no bed but the ground and no roof but the starry infinite above. In cold and heat, rain or snow, in mud or over rocks, it wends its way without a break or an objection, and brays for its coarse fodder and eats it with excellent appetite wherever it may stop for its short rest. The mule is no racer, but it may be trained, says Henry Stewart in *American Agriculturist*, to travel under the saddle or in light harness at a very good speed, and it will maintain its pace for ten or twelve hours with more steadiness than a horse. Its compact build makes it the best pack animal. The horse is the more luxurious animal and more human in its disposition. Its nerves are more acute, it has higher instincts, and is more refined. It is kinder in disposition, and is more easily and strongly attached to its keeper and owner, who uses it kindly. It can make a more vigorous effort on the spur of the moment, but cannot maintain a slow, dogged energy like the mule. It requires more food, and that of a better quality for these reasons. Where quick work for a short time is wanted, the horse beats the mule; but for the slow draft and unchanging toil, the mule is the more useful. A mule is kept one-half more cheaply than a horse. It may be fed on blade fodder and a few ears of corn day after day without any change, and will do more work on this coarse fare than a horse of 200 pounds more weight. This character is so well fixed that in the South, where all the hard work is done by mules, a mule of 1000 pounds is worth $100 or $150 more than a horse of the same weight, and for smaller animals the difference in value is $50 in favor of the mule. For a few years past I have been rearing young mules and horses, and while the colts get the best hay and more grain, the mules get corn fodder, the coarse hay and few corn ears. An accurate account of the cost of feeding the two kinds of animals up to three years old shows that the mule may be reared for half the cost of a horse colt. A pair of small mules cost me less than $20 a year for the two years they were fed, and they lived during the summers in a wood lot, and cost nothing for their pasture. A mule will live where a horse will starve, and, when out of work, enjoys the coarse feeding of the woods. When the horses come to the gate and wait to be brought home for their feed, the mules have to be hunted up, and bells are put on them so that they may be found. On the whole, I am very sure that a pair of mules will do twice as much work as a pair of horses the same size, or somewhat larger, at half the cost of feed and other expenses. This takes into account the feeding, the work and the longer life. Much is said about the ill-nature of a mule. This is undeserved. Its frequent viciousness is taught to it by ill-treatment and general bad management. A mule will never kick unless it has been taught, except in frolicking when young. It is really affectionate and good-natured, and when otherwise it gives only what it gets. When kindly treated from the first by those who rear it, the mule will be kind, docile and even affectionate. It will not be so demonstrative of its affection as a horse as kindly trained, but it will show its good nature in its own more sober manner. The horse is a subject for the poet, the mule for the man whose life is spent with a freight-wagon or a plow before him.

THE APIARY.

Notes From the Oak Leaf Apiary.

GRIZZLY FLATS, EL DORADO CO.

TO THE EDITOR:—To-day, September 17th, I extracted all the upper stories of the hives at the Oak Leaf Apiary. Honey, I, believe, is coming in more rapidly than at any other time this season. What honey is being gathered now is beautifully clear in color, of an exquisite flavor, and great density—in fact, some of it is pretty hard to throw out of the combs. I think our honey-flow here will continue until the latter part of October; and if the rainy season holds off long enough, probably well into November.

The honeydew will furnish most surplus after October. This year, here in the upper Sierras, we have had almost a continual honey-flow, from early in the spring until the present date, Sept. 17th. So far I have extracted six times, and may extract again next month if the honey is not too dense.

I increased my colonies very little this year, but I have them in splendid condition for rapid honey-gathering. I think sometimes that in certain localities where large numbers of bees are kept, that one-half of the number of colonies would gather all the surplus honey; and if it can be shown that they can do it, bee-keeping will become more profitable. I am certain that where 500 colonies of bees are kept in one apiary, as is the case in many southern California locations, that 250 colonies will gather all the surplus honey, if rightly managed. Too many bee locations are overstocked, and hence the poor yields from season to season. Generally speaking, one-half the bees in California, or colonies rather, that are kept in apiaries of over 200 colonies will be found to do the work better and cheaper than the full number of colonies at present employed. I do not think that I shall ever keep over 100 colonies in any location, no matter how good it may be.

What is needed and what we want is this; hives that are made so as to facilitate manipulation, and powerful colonies that are kept at their greatest energies of honey-gathering and comb-building; this is accomplished by always keeping an empty space, (the size of one frame,) in the center of

each story, on the hives and in the brood apartment also. (I am speaking of working for extracted honey).

When the combs are ready to seal, extract all the honey out of them. When the center frames are two-thirds drawn out or finished, remove from the brood apartment and place overhead in the upper stories. The center frames of the upper story can also be removed to the side, and empty frames inserted where these were taken from. Bees, to be kept at their high pressure mark, must be kept always comb-building, and have plenty of empty combs to store their honey in. By having them industriously employed in building out their center combs, all season long, their comb-building instinct is gratified,and the abundance of empty combs present after each extracting, stimulates them to to greater exertions in refilling them again, so that they are kept extremely busy all the time. Do not give bees a chance to loaf by allowing the hive to become too crowded with honey.

When running for comb-honey, be on the lookout when the first set of sections are two-thirds full, for then is the time to insert a new case filled with primed foundation sections. It is hardly advisable to let comb-honey remain too long on the hive, as it soon becomes travel-stained bv the bees. S. L. WATKINS.

RURAL IMPROVEMENT.

How to Beautify Country Roads.

By C. L. HANSON before the Farmers' Institute at Chino.

The people of California are just awakening to the fact that avenue and street planting is a necessity as well as a public benefit. There are few countries, if any, in the world that are making such rapid strides as California is to-day. Yet, if one only pauses for a moment and thinks what a great transformation could be made if the work of street-planting was followed in a more business-like and systematic manner, it would not be long before our streets and highways would be continuous stretches of cooling and inviting shade, instead of the glaring and dusty wastes they are at present. If people would first study the nature of their soil and allow for climatic conditions of their particular locality, there would be fewer disappointments.

There are many trees that grow in our eastern States that will do equally as well here in California, and after all what more beautiful sight is there than the fine old hard and soft maples, English and American elms, that make our eastern cities so attractive? Many people suppose these varieties do not succeed in this country, but I have proved otherwise by practical experience. While there are certain varieties which we all know do well here, yet there is no necessity for us to be tied down to a few when we have so many beautiful shade trees to choose from, all of which succeed equally as well.

The united action of people in a scattered locality can accomplish wonders if only pursued systematically. Let us take into consideration even the common blue gum or eucalyptus, its wonderful growth and very moderate cost, often not exceeding a cent per plant; also our peppers, grevillias, pines, Texas umbrellas, and many other sorts equally suitable for street planting, and compare the first cost of them with the horse chestnut, maple, and general variety that go to make up the list of eastern and foreign trees, we find we are indeed favored both in the number of varieties suitable as well as the first cost. Why, therefore, should we not have the finest and best kept avenues and streets in the world?

One of the chief things which strikes the traveler from California as he journeys through the older countries, England, France, Belgium, and I may say the greater part of the European continent, is the great attention paid to the planting of the highways. While we cannot but admire their beautiful edifices, ancient structures, cathedrals, etc., yet their cities would be homely enough were it not for the attention bestowed on their beautiful parks, grand boulevards and fine streets, all planted and cared for at immense cost. This has taken generations to accomplish, while we, with our magnificent climate and rapid-growing trees, can accomplish as much in a single decade.

As to the best way to go to work to accomplish the desired end, this must be left to the people in their respective localities. Should this essay be the means of starting people to think over the subject, my object will have been accomplished, as results are sure to follow quickly. We are all aware that it is very easy to talk and advise what we would like to do, but getting down to work is another thing. My idea is not for each individual to just simply plant a few trees along his own place, but to take up the work in earnest and arouse enthusiasm among his neighbors, and get nonresidents to cooperate with each other in the good cause.

What has made Riverside so famous? Not only her well-kept groves, but her grand Magnolia and other avenues. Take Ontario again, Euclid avenue, and her well-kept and well-planted streets have proved every bit as good an advertisement as her justly-famed orange and lemon groves. Redlands also boasts of Palm avenue, and so we might go on *ad infinitum*.

Let the good work go on in all parts of California, and do not let us cease our efforts until we make our highways the finest not only in the United States, but in the world. We have the climate, soil and trees, and all that is required is united action with the predominating enterprise for which the people of southern California are so noted.

RICHARDSON BROTHERS' steam wagon, which runs over common dirt roads, hauls from 30,000 to 35,000 feet of lumber daily up at Truckee.

EXCHANGE PROPOSED.—C. R. Orcutt, San Diego, offers choice seeds and plants in exchange for calla lilies and other bulbs.

The Sixth District Fair.

Exhibit at the Pavilion.

Written for the RURAL PRESS by CLARA S. BROWN.

The Thirteenth Annual Fair of the Sixth Congressional District opened at Los Angeles on Monday, Oct. 3d, and continued through the week. The agricultural, manufacturing and art display was made at Hazard's Pavilion. At the racetrack, many thoroughbred horses and fine cattle, sheep and swine were shown. In fact, there were 50 more horses entered than could be accommodated in the stalls. Thousands of people witnessed the races every day, and the attendance at the pavilion was large both day and evening. Entertainment of some kind was almost constantly provided, attracting many persons who might not have paid admission simply to see the exhibits, though they well repaid careful observation. The Mexican National Band, one of the finest bands that ever visited this coast, was engaged for three days, and baby shows and variety performances created much amusement.

For two years previous to this, the fairs were held at the Chamber of Commerce—a hall of much smaller dimensions than the pavilion, which is at all times filled with a large exhibit from all the southern counties. This permanent exhibit was so mingled with the competitive displays of the fairs that it could not be distinguished from them, and an impression of overflowing abundance was given which is not renewed by the exhibition at the pavilion this year. It was a surprise to be told by Mr. Wiggins, who, with Mr. C. D. Willard of the Chamber of Commerce, has this part of the fair in charge, that more entries were made this year than last. The pavilion is so spacious that, at the first glance, one does not realize how much it contains.

There has never been so much machinery in operation at a fair in Los Angeles as at this one, and the trades were more fully represented. The art display was very large, the fancywork department was well filled, and the exhibit of the Science Association occupied an entire room and comprised many curious and valuable things. The horticultural show was by no means what could have been made two months ago—our fairs come too late—nor was it representative of so many sections of southern California as it has been some years. There was but little sent in from San Diego, Orange or San Bernardino counties, and nothing from Santa Barbara county except art leather work.

Ventura county, as usual, made a display of great variety on a 40-foot table. There was a trellis covered with bunches of grapes of all colors and generous size. Vines were shown bearing immense clusters. Plates were filled with grapes, apples, pears, plums and peaches. Soft and hard-shelled almonds were shown in boxes and jars; glass dishes of various shapes contained dried apricots and the famous beans of the county; mammoth onions, beets and tomatoes were arranged in piles. Amongst all these were vases of flowers which put the finishing touch to an attractive table.

The largest exhibit of honey in the building was made by J. A. Archer, of New Jerusalem, who has 150 hives of bees in Ventura county. The exhibit comprised patent hives with swarms of bees busily at work in them, queen cells, honeycomb in every conceivable shape, extracted honey, and beeswax molded into various forms. One wondered how the comb got into the small-necked glass dishes, tubes and cylinders, until Mr. Archer explained that the dishes were inverted over the bees, who industriously filled them without using any foundation. Mr. Archer offers to wager that his bees can make one-third more honey without foundation than with it. The blossom of the Lima bean makes very nice, white honey.

San Diego was represented by Mr. S. E. Allen, who entered lemons, three varieties of grapes and seven varieties of apples. H. S. Mason, of Murrietta, same county, showed Bartlett pears. E. P. Norwood, of Cucamonga, exhibited French prunes, orange vinegar and grape syrup. A. H. Palmer, of Ontario, displayed dried prunes, peaches, plums, apricots, nectarines and pears.

The only entries that I could find from Orange county were oats, by J. Wakeham, of Santa Ana, and apples and orange-quinces, by T. L. Holloway, of Garden Grove.

LOS ANGELES COUNTY.

The largest individual exhibit in this county was made by I. Gibbs, of Vernon, who covered a table 40 feet long with productions from his ranch of 20 acres. No better object-lesson could be given the stranger desirous of learning what can be done on a California ranch than was afforded by this fine exhibit. What Mr. Gibbs has done, many other farmers are doing, but they did not exert themselves to give such testimony of the fact as he did at the fair. There were melons of several kinds, squashes, lemons, oranges, apples, peaches, tomatoes, figs, guavas, cabbages, onions, beets, blackberries, 11 kinds of pears, corn, walnuts, gourds, and 40 varieties of jellies and canned fruits, put up by Mrs. Gibbs. The table was adorned with many beautiful bouquets of flowers, among the most velvety, wine-colored dahlias I have ever seen. Pomona's table was covered principally with choice specimens of fruit preserved whole, in large glass dishes, by the Board of Trade. The table was in charge of W. T. Clark. Winter Nelis pears were shown by Edwin Borst, a big pumpkin by Mrs. Bacon, dried prunes averaging 33 to the pound by Schureman Bros., jelly by Mrs. E. Ayers. There were potatoes weighing three to four pounds each, and cornstalks of great height which grew in a second crop planted July 20th. A section of a castor-oil bean trunk, 2½ years old, was 9½ inches in diameter. It will be taken to the World's Fair. Everything in the exhibit from Pomona was grown without irrigation.

Long Beach had one of the most creditable exhibits from any locality, in charge of James C. Dunn, assisted by Mrs. Belle Lowe. It refuted the assertion sometimes heard that fruit will not do well on the sea coast. Seventeen varieties of apples were shown, some specimens weighing a pound and a quarter each, and all clean and handsome. One bunch of grapes weighed seven pounds and others weighed three pounds. There were nine kinds of pears, five of grapes, three of figs, besides Kelsey plums, pomegranates, guavas, quinces, enormous egg plants, the only raisins shown in the hall, 30 varieties of jelly, a beet weighing 30 pounds, the banana muskmelon, a new variety of muskmelon called the Kasauba (very large, late and thin rind), 65 kinds of flowers, and a lot of hops which Mr. Dunn raised as an experiment. The wonderful growth of the hops, he declared, threatened to drive him out of his home, and in every way the experiment proved a success.

The Pasadena Fruit Drying and Condensed Vegetable Company, W. R. Baker, manager, nearly covers a long table with its display of dried fruits, condensed vegetables, fruit leather, jams, jellies, and fruit canned by a "cold process" that preserves indefinitely without the use of airtight jars. Sulphur is not used in drying fruit, and Mr. Baker was especially proud of some luscious figs which he had successfully dried without using anything to bleach them. He has patented a drier which is economical of fuel, though intense heat is produced, enabling the fruit to dry in from 4 to 24 hours. He claims that the expense of curing fruit with this drier is not over $1 a ton. The canned fruit and jelly were prepared by Mrs. Baker. Condensed vegetables are now on the market. Pumpkin, potato, carrot, onion and turnip are put up in small packages of fine powder, and pies or soups may be made at a minimum of trouble and cost. A box of St. Michael oranges picked last March was shown by M. H. Waite, and some boxes of dried fruit were put up by C. C. Thompson.

Mrs. S. E. Crane, of Duarte, displayed a pyramid of jellies that many a housekeeper coveted. She is not an amateur in jelly-making, for she supplies stores with cases of her goods. The clearness of her jelly was something remarkable, and the delicate aroma of each fruit was perceptible as the covers were removed. Mrs. Crane thinks if some woman in the northern part of the State would plant an acre to currants and make jelly from them, she could make it profitable. Duarte's display consisted largely of dried fruits packed in glass cases, and grown on the ranch of Bliss Bros. It made a handsome appearance. Ernest Watson showed Valencia late and seedling oranges, also lemons.

Cahuenga has hitherto exhibited largely at these fairs, but Hammel & Denker made almost the only entries this time, showing giant beats, tomatoes, beans, etc.

C. N. Wilson, of San Fernando, exhibited some fine honey, with bees at work, also buckwheat, field and garden peas, beans, rye, oats and barley, all raised without irrigation. George Spiker, of West Glendale, showed Havana and Orinoco tobacco in all forms from the green leaves and stalks to boxes of cigars and "finecut" for pipe use. A. D. Hawks, of Sierra Madre, entered some fancy boxes of California prunes. J. Courtney, of Artesia, showed apples, peaches and grapes.

James Stewart, of Downey, had boxes of dried tomatoes, big sack English walnuts, and figs (which are his specialty) fresh, dried and preserved. J. W. Venable, of Downey, showed 12 varieties of apples and grape fruit in clusters.

A stand was covered with pint and quart jars most neatly packed with fruit by E. E. Foster of Los Angeles, who supplies Jeone, the grocer, with the same for use in the families of his customers. A patent knife and working table were also shown by Mr. Foster. E. M. Potts, of Los Angeles, made a large display of jellies, jams, pickles, marmalades and catsup. Sessions & Co. showed a box of choice butter. Mrs. S. D. Spear, of Pasadena, made the largest display of flowers, all labeled.

The Raymond nurseries had a bed of ferns and foliage plants directly opposite the main entrance, and displayed many carnations.

E. D. Sturtevant's tank of rare water lilies was much admired.

A. W Eames showed deciduous trees from his nursery in Los Angeles. Cole & Muir, of Glendora, showed semi-tropic trees; Barbour & Mawby, Covina, orange and lemon trees; and J. G. Calkins, of Pomona, 16 varieties of olive trees, also some Valencia late orange trees, one year old from the bud, which are 5½ feet high. Mr. Calkins has about 500,000 young olive trees growing in his nursery, in over 50 varieties.

In the center of the pavilion there was a mammoth pile of pumpkins and watermelons entered by the Chamber of Commerce, crowned by the monarch of all, a pumpkin weighing 225 pounds and raised at University with no irrigation.

The Union Oil and California Ink Company, of Santa Paula, Ventura county, made a pretty exhibit in the form of a pavilion, which will be reproduced on a larger scale at the World's Fair. Thirty kinds of lubricating oils were shown, crude and illuminating oils, paints, asphalts, petrocarbons, type-writing oil, aniline products and printing inks of all colors. This exhibit is to remain at the Chamber of Commerce. The Ladies' Annnex made an interesting silk exhibit, using an electrical spinning reel. The process was watched by many persons who had seen nothing of sericulture. The ladies propose to make a flag for exhibition at the World's Fair with the aid of the curious little silkworms.

No names were allowed on the cards this year, and the task of reporting was rendered doubly difficult. I must have omitted some of the exhibitors, though I made every effort to secure a complete list. Most of the tables had on one in charge of them, and the managers of the fair were wanted everywhere at once and could not be interviewed long enough to secure the information. At this writing, the condition of finances has not been announced, but it is expected that the balance will be on the right side, though expenses have been heavy.

The Home Circle.

If Mother Would Listen.

If mother would listen to me, dears,
She would freshen the faded gown;
She would sometimes take an hour's rest,
And sometimes a trip to town.
And it shouldn't be all for the children,
The fun, and the cheer and the play;
With the patient droop on the tired mouth,
And the "Mother has had her day."

True, mother has had her day, dears,
When you were her babies three,
And she stepped about the farm and the house
As busy as a bee.
When she rocked you all to sleep, dears,
And sent you all to school,
And wore herself out, and did without,
And lived the Golden Rule.

And so your turn has come, dears;
Her hair is growing white,
And her eyes are gaining the far-away look
That peers beyond the night.
One of these days in the morning
Mother will not be here;
She will fade away into silence—
The mother so true and dear.

Then what will you do in the daylight,
And what in the gloaming dim?
And father, tired and lonesome then—
Pray, what will you do for him?
If you want to keep your mother
You must make her rest to-day,
Must give her a share in the frolic,
And draw her into the play.

And if mother would listen to me, dears,
She'd buy her a gown of silk,
With buttons of royal velvet,
And ruffles as white as milk;
And she'd let you do the trotting,
While she sat still in her chair.
That mother should have it hard all through
It strikes me isn't fair.

MARGARET E. SANGSTER.

Calamity Day.

Written for the RURAL PRESS by DUANE MORLEY.

"Joe, dear! please do not set me any responsible task to day, especially anything which has in it an element or opportunity for risk."

"What is the matter now, Kate—anything serious?"

"Nothing great, but this is *calamity day* come again. This morning when I lifted the screen to let in Tabitha Ann who had been out all night, moon-larking, the screen fell and jammed my thumb. And, while turning the breakfast buckwheats just now, my bare elbow came in contact with the kettle's steam: calamity day sure."

"You are a superstitious creature, Kate! and an alarmist also, trying to infuse me with your superstitious notions. According to your fancy, accidents run in waves, disasters come in battalions, and misfortunes fall upon us like showers, isn't that it?"

"Yes, Joe, that's it, and as sure as anything serious occurs with me before the breakfast hour of a day, just that certain such things will happen all that day. Now there was—"

"Spare the recital, Kate, I cannot bear it. Just drink a good, steaming cup of coffee, forsake your queer notions, read something soul-bracing, of Emerson or possibly Ruskin, and in an hour everything will run as smooth as a telegraphic transmission." Our breakfast talk then drifted into another channel; Joseph Cook's recent lecture, and thence to the usual daily gossip of which the men are reputed not to be fond.

Finally, Joe swallowed his last coffee and strode off to his office. Of course, he was sorry for me because of my bruises and burns, gave baby and I the goodbye kisses and then away—no, he said just as he passed out, "Kate, I wish you would dust the books and pictures. I was showing Greenbaum our new Scott the other night and I found it grimy, actually grimy—California dust is so penetrating."

We do not keep help; Joe cannot afford it yet. He is a "law limb," as he calls it, at that time, attache of the firm of W. G & L., drawing slender salary. After Joe had gone I romped with baby for a time, giving her her bath and clean suit; tidied up the kitchen; run the seams o a new gown; chatted for a while with Lillie Leffingwell, who is here at a neighbor's fresh from Illinois, and, forgetting about calamity day, I sailed into "library corner," as we call it—the book corner of our cosy little parlor—to dust the books and pictures.

Springing up the curtains to get more light, I noticed some cobwebs on the ceiling. Only a day or two before I had swept them and there they were again—vexatious. Getting the broom and short step, I straight at the webs. How it happened, I cannot say; either my ladder was not placed firmly or my strokes were too vigorous, for down I came, pitching forward as I fell, and punching a hole right through "Moses in the Bullrushes," through the bullrushes anyway.

I gave a gasp as I looked at the rent, for we had bought the picture at a recent art sale and Joe was much pleased with it. Just then baby screamed. I had left her in the kitchen holding Tab. Rushing out to see what was the matter, there I found her all covered with milk, the urn fallen from the table above, milk and broken glass on the oilcloth beneath, and Tabitha Ann quietly performing her toilet in a corner. For fully six months I had splendidly kept my temper in curb, but right there the curb broke and Tabitha Ann took wings through a convenient hole in the screen door, followed hard and fast by a stick of orange stove-wood. I cleaned baby, dust-panned the broken glass and washed up the spilled milk, all the time strangely forgetting that it was calamity day. After vainly trying to eat—it being the lunch hour and Joe never lunching at home—I sailed back again into "library corner," patched up as best I could the broken bullrushes where the infant lawgiver still lay sleeping, refilled the Pittsburg lamp and then began to dust the books in their cases. By that time my feelings were much mollified, hoping, as I did, that the break in the picture could be more substantially mended, and as for the glass urn that could be replaced at small expense. I was even compunctious respecting the warfare between Tabitha and myself, for, doubtless, the poor cat was herself without fault in the matter.

Well, the books were dustier than I supposed possible, yet I got along nicely, admiring them as I replaced them upon their shelves. And then—well, I do not know how to say it. I had been telling Joe that the shelves were not properly supported, the end rests did not fit, and the connecting supports were not strong, and, to save the trouble of rearranging, Joe had placed several massive volumes upon the upper shelves, among the number a Universal geography, a two-volume cyclopedia, and a one-volume Shakespeare. I suppose that in taking out the volumes and replacing them, the end rests got shifted. Whatever caused it, there was a sudden decline in literature—right sudden—the three higher shelves dropping from their grooves and tossing their handsome freight, myself with it, down upon Joe's open desk, and thence to the carpet. My elbow struck a corner of the desk as I fell—the same elbow I had burned while turning the breakfast buckwheats. That reminded me that it was calamity day, and had you, dear reader, seen that disarray of books, you would have conceded that it was calamity something. It was a ruin. Joe's ink had been knocked over, the red lending a sanguinary hue to a volume on "Missions and Missionaries," the black finding a short-cut into "Byways of Europe." The leaves of many of the smaller volumes were loosened and their backs slit. One cover was gone from each of the two cyclopedias, the Universal geography—always shaky—had made of itself a leaflet circulation to the four corners of the room. Shakespeare, alas! was demolished; no Donnelly to save his *bacon*—the illustration of Romeo and Juliet torn in halves, Romeo on one, Juliet on the other. Emerson and Carlyle—well, I cannot go on. I could not then. I went to the window and looked out. I said nothing. As silent was I as the sphinx, and, too, while there was much that could have been said; then I left the room and the ruin behind me. Baby had, as I discovered, crawled up onto a chair and therefrom to the bed, where she lay sleeping. So softly she slept, it seemed like death, and so I thought of death and wanted to die, but I did not. Our petty griefs do not kill us. Womanlike, I threw myself upon the bed beside baby and cried. Then I slept; how long I slept I do not know, but when I again became conscious it was five o'clock and Joe home tearing at me to awaken me. "Out of that, Kate," said he, "out of that and hear the good news." Then he capered all over the room, shouting, "Good news!" "Why, Kate, you've been crying; what's up?" Then I recollected not *what was up* but *what was down.*

"Bad news!" I shouted, yanking Joe into the parlor to survey the wreck. He took it all in with one wondering look, uttering but one phrase as he fled from the room, "California cyclone, as sure as I live!" Joe's good news was that W. G. & Co. had promoted him into the partnership, making him a five-hundred-dollar cash present as a mark of esteem. Such was calamity day—calamity on my side, good-fortune day on Joe's.

"VAT would you say, Abie, if I geef you a dime?"

"I'd say twice as much fadder, for fifteen cents."

Mrs. Landers' Property.

Written for the RURAL PRESS by M. PULSIFER.

In a town not far from San Francisco, live two persons, who, in these days, and especially in California, may be considered phenomenal, for the reason that they never go anywhere; that is, to see and enjoy the doings and events of the day. They are by no means dull and disinterested, but living many years alone has had the result of making them morbidly cautious. They are afraid to leave "the house" alone, and each is afraid to leave the other alone, so it happens that they stay at home for mutual protection and general safety.

But let me introduce them—Mrs. Landers and her daughter Josephine, or Joe, as her mother likes to call her, since she has no son, and Joe has made the home since her father died. Although these two persons have seen little or nothing of the world for themselves, they have studied it through the eyes of others and the press, the latter being chiefly instrumental in forming and fixing their opinions of men and things. As it is not the province of daily papers to set forth the good deeds of mankind, I need not enlarge upon the ideas that have long ago petrified into belief in the minds of these two unsophisticated and innocent women.

Their friends have learned not to expect anything more than brief occasional returns of their many calls and visits, for Mrs. Landers and Joe seldom leave their home, and yet more seldom go together.

No one could tell how they would come out of a contest with desperadoes, for they haven't so much as a pair of tongs to defend themselves. As for firearms, neither of them would touch one of the inventions though it had been taken apart and put together before their eyes to convince them that "it was not loaded."

"Now, ma," says Joe, one evening, as they sat in the twilight, "I'm going to tell you something, When I was in town yesterday I met Mrs. Haply and Rufus, and they sent their compliments to you, with the request that you and I go with them to the circus, John Robinson's, to-morrow, at 2 o'clock. I want you to accept the invitation; it will give you pleasure, and break up the wearing monotony of going nowhere and seeing nothing,"

"Wal, you know I don't like that ar' Rufus Haply, and I'm jus' sure he's behind the hull thing."

"Really ma, I think you are rather unfair in your dislike and treatment of Rufus; you have known him all his life, and I'm sure you know no wrong he has ever done."

"Pshaw! Joe, *you* know that is not the point. He thinks he'll step in here when I'm gone and it makes me hate 'im, for I never will call him my son, there!"

"Ma, you don't know him, if you think he is waiting for that, because he says he would come in to-morrow with your consent; that he could and would be a great comfort and help to you in your old age. Certainly, you can't accuse him of having any designs upon your property, when he is independent already, and will be quite wealthy if he outlives his mother. But we will not discuss Mr. Haply any longer; only, be assured, he is your friend as well as mine. *Will* you go to the circus?"

"Wal, the circus'll do us no harm, and I'm willin' if we s'cure the house and our few val'ables from incend'aries, thiefs and burgalars."

"Oh! dear me!" returned Joe, "I have that all planned, so you need give yourself no uneasiness, for once."

"*You!*" exclaimed Mrs. Landers. "I wonder if *Joe* has any interest in *her* earthly lot cast under this ere roof!"

"Oh! ma! You know I intended to say *we;* pray don't be so touchy. *We* will not leave anything *in* the house; all must be put outside, and my plan is to dig a hole and bury them until we come home."

"*Bury them!* Why, I wouldn't trust them under ground one minit! with them ar' pesky gophers as cuts my plants and shrub'ry down slick as a blade! I'll stay home and keep an eye on things. Them 'ar tarnal critters have holes big enough to swallow a hogset of water, as I've proven more'n once."

Poor Joe was rather taken aback, for she had really considered her idea a very safe one for securing some articles of worth that had come down to them from better days, but which they would trust to no bank safe.

Then she suggested putting everything in a box and hiding it in some of the many clumps of bushes that Mrs. Landers had encouraged to grow "wild."

"Goodness gracious me! that's worse than t'other! Did you never hear nor read of them walkin' scamps called tramps? They do nothin' but prowl in the bushes; *they* hides in 'em, and stays there all day—or, at least at night, or as much of it as they're not stealin' and murderin'! You may jus' quit talkin' and layin' such plans; I'll stay home and keep the gate chained and locked, then I'll know who comes in and who goes out. Besides them perfec' born tramps and villains, these ere meanderin' circuses carries a reg'lar gang that jus' spreads out over a hull community in no time, and they puts in steddy work at their bus'ness of robbin' widders and orphins and inverlids, while the animils and other indecent things is making fools and asses of the people generally!"

This silenced if it did not terrify Joe, for some time. The hour was getting late and she was forgetting the circus in the sweet sounds that are heard in late summer and autumn evenings.

The notes of the crickets under the window carried her from place to place, from old to new scenes, from old to new associations, from gladness to sorrow, from sorrow to gladness,—but that song had never changed!

She was half dreaming, and a long way back on the road she had traveled since her only and beloved sister had left her to reside in a distant town.

She was suddenly aroused by her mother saying: "Come, Joe, don't think so serious about the circus, and I'll go, for I've hit upon a way of safely hidin' the troublesome things, one and all. We'll put 'em in the woodshed, under the wood, and pile the wood on 'em! Now!" The last exclamation meant that the matter was settled; but it did not have the usual or desired effect upon Joe, who declared that she would take no hand in such a piece of tiresome work, and so stoutly, for once, did she dissent from her mother's wishes that Mrs. Landers yielded quite as readily as had Joe twice before.

"Since we cannot agree upon a plan of concealing the articles out of doors," said Joe, "we must both make up our minds to leave them in the house and risk the consequences, or stay at home. It must be 'yes' or 'no' to-night, for there will be no time to argue the question to-morrow."

"Listen!" loudly exclaimed Mrs. Landers, startling Joe, who had both her eyes and ears shut. "Didn't you hear that ar' noise in the laylock? I did, and—Oh, Joe! there's a man jus' run by the winder; sure's I live!"

Joe was frightened, but tried to conceal the fact from her mother. by rising and bravely going to the front door to see if any one went out. She saw no one, but heard receding footsteps; and advancing to the gate found it ajar, neither of which she told her mother.

"Now, Joe, I jus' tell you, that ar' feller in here, is no other than a circus scamp, layin' off work for to-morrow, and I'll not leave this ere house to a'sist his operations, if I know myself."

"Try not to be alarmed, please ma! I think it is some one who supposed we were asleep, and came round to see if the hose or something else was not left out for his benefit. If there be thieves with the circus, they are not here yet; and when they begin operations, it will be upon more promising establishments than ours. And then we will be home to-morrow night.

The Landers house was built fifteen years ago one spring. It was a neat five-room cottage, with a broad veranda extending the entire front, upon which French windows opened from parlor and sitting-rooms, making those apartments fresh and delightful in summer. The place was well kept and scrupulously neat, and bright with flowers nine months of the year.

Rufus Haply had called it the "Retreat of the Angels," which, Mrs. Landers said, would sound well enough from any one else; but she "didn't care to hear any comments upon her belongings coming from that ar' quarter. It's the easiest thing in the universe for han'som' men to make pritty speeches; but I tell you, Joe, they don't mean nothin'. Your pa never talked such silly stuff and rubbish, not in my hearin'. But your pa was not a homely man—by no means. But as for Rufus Haply, I never can, to my dyin' day, tolerate his black hair'n eyes, an' that ar' pet, a mustach trained to curl to his biddin'; no one on arth would take 'im for a Puritan Yanky, but a full-blooded Spanish furriner, I vow!"

While Mrs. Landers is recovering her breath, I will speak of another house that was built in the fall of the same year, across the street from Landers and just opposite.

Part of the cost of its construction was borrowed money, upon which fact Mrs. Landers had remarked at the time: "Them as builds houses on borrowed money nails the devil in; and now, Joe, you mind my word if it isn't true in this case."

The passing years had, indeed, seemed to verify Mrs. Landers' proverb, for the history

of the house was a sorry one. During the time mentioned the Landers had seen seven owners and eight renters come and go, each one of whom had poured into the ears and confidence of Joe and her mother their various tales of woe and sorrow, for not one was happy who lived beneath its roof.

Its present owner grabbed it up during "the boom," and he is to-day half distracted over his many failures to find a purchaser for the little white elephant. Notwithstanding all its occupants, the house has been vacant fully half the time. There are those who can tell stories of lights and noises seen and heard within its walls during the dark hours

Mrs. Landers declares the place is "haunted by the Old Boy;" but Joe has a secret opinion that it is haunted by more than one old boy, and those boys make it serve a purpose of their own that might be of interest to the local police.

She prefers, however, to let her mother hold the less disturbing belief, for Mrs. Landers had always said that "Satan never molested them as wouldn't sarve 'im!'"

At the time our story opens, this house had been unoccupied for some months; and Joe, whose room was just off the front parlor, had been awakened more than once by the sound of wheels that always stopped there, and which would be succeeded by the noise of booted feet on the steps and through the house, going in and out.

(*Concluded next week.*)

The Lamb Among Wolves.

He enters the precincts of the bureau. Black is his brow, and rasping with unwonted harshness is his voice, writes Robert J. Burdette of the man who enters an intelligence office in search of a "cook" and a "second girl," in the October *Ladies' Home Journal.* Sternly he bends his gaze upon the superintendent. She lifts her own eyes a passing moment, to meet his ferocious expression, tranquilly, as one who had been weaned in early infancy on just such glances from much larger men. She resumes her writing. There is something in the atmosphere of this strange place that chills him. He snorts "Goodaftnoon!" in one word, and in the same tone in which he had snarled "Gmorn!" to his typewriter. The superintendent looks up pleasantly and says, "Good afternoon, sir," with excessive courtesy and just a little Boston icing on it. He breaks into a cold perspiration as the horrible thought sweeps across his mind that she may have followed him there to witness the battle. He looks over his shoulder as a murderer might look around at the ghost. He would give a dollar if the office boy would just come after him with a message. He knocks his head off. His tongue cleaves to the sunburned roof of his kiln-dried mouth. He takes off his hat. He prefers a request for an interview with a lady who might be willing to accept a situation to assist in general housework. The lady is presented. "An' how many have yez in the family?" "Five." He is alone. He hears an unfamiliar voice beyond the partition saying, as to an audience: "Thayre's a houseful o' thim." He suggests, in a hoarse, strange voice, that he will try for two. They are summoned. The candidate for cook is taller than himself; the "sicking gyrul" demands of him where he lives. He names the street. The two ladies turn to look into each other's faces; two harsh and hollow bursts of laughter grate upon the startled air; two faces look down upon him with pitying commiseration, and he is once more alone. He goes out like a man walking in his sleep. He falls over a dog and "begs pardon." He meets the office boy and lifts his hat to that astonished young rebel. He sees his typewriter waiting for a car, and calls a hansom for her. He reaches home, and when the "ad interim" Ellen Eliza opens the door, he calls her "Madam," and apologizes for troubling her. You say: "Where is the new girl?" He says: "Oh! Didn't have time to go for her." And he is correct. She went for him. After this, perhaps, you had better not say anything to him about it.

O patient, much-enduring, long-suffering woman, no man living knows upon what heart-aches and trials and tribulations of the flesh and spirit his happy home is founded. If he did he couldn't sleep in it.

FIRST BEGGAR WOMAN—"What do you pay a day for the hire of that brat?"

Second beggar woman—"Fifty cents."

First beggar woman—"That's too much. For that money you can hire a deformed husband, blind in both eyes. I don't see how you can lay up any money when you pay fifty cents for a child that is not even deformed and hasn't got a single sore on it."—*Texas Siftings.*

A Plea for Healthful Dress.

Written for the RURAL PRESS by MAUDE PEASLEE.

Although the days of tight bodices, heavy skirts and torturing pull-backs are gradually becoming of the past, still there are many all over our land who hesitate to make the change to the dress-reform garments, because they imagine the cost to be quite beyond their purses.

From my own pleasing experiences in this matter, I would offer a few notes for the encouragement of others as economical as I myself.

The first season I cut the superfluous length from my shirts and sewed them to the lower part of my flannels, thus doing away with one band. Experience, however, taught me it was cheaper in the end to buy the same grade of flannel already made up into Union suits. So many firms now manufacture them that is possible to buy a very fair quality, high necked, long-sleeved, gray, jersey-ribbed, for $1.75 a suit. These last me two winters, and right here I would suggest, when they begin to grow thin darn them in loose stitches instead of trying to patch so close-fitting a garment.

Therefore as it becomes necessary to purchase new flannels, pray do invest in the Union undergarments, the superiority of which over any other cannot be disputed. Fitting the body closely, with no superfluous weight or fullness, it wears twice as long as the old style, as it gives with every movement of the body with no severe strain on any part. Unless one has fairly tried it, there cannot be full appreciation of the advantages to be gained by the change.

There are many comfortable waists to choose from in discarding the corset, if indeed one feels the need of the waist. These wear much longer than any corset I ever used in my benighted days; therefore they are cheaper, and again the change is economical.

The next garment, the chemilette, combines three garments in one, and besides the comfort, beauty and grace, money may be saved in time, material and trimming, while if a seamstress is to be paid the bill will be much lighter.

The divided skirt must be tried to be even half appreciated. It was with fear and trembling that I ripped up an old full dress-skirt, and following the pattern made my first one. The warmth, freedom and grace of movement, and the evenly distributed weight, makes it far too comfortable ever to discard if once tried. The difficulty of making the change may lie in deferring the step because of lack of time. Of that each one must be her own judge, but if you still doubt, just talk it over with your doctor, and ask him if he doesn't think it might help to strengthen your weak back. If he agrees, you surely will not let anything stand in the way of a chance of renewed health.

The Gown Form is the finest thing Mrs. Jenness-Miller has given us in her many improvements in dress. It is not divided, as I find some imagine, but is merely a perfectly adjusted and well-fitting skirt and waist in one; in fact, a princess lining upon which the dress proper is arranged.

The many beautiful Jenness-Miller costumes prove that it is possible and practical to dress artistically, yes and stylishly, while obeying every law of health and hygiene.

In case of a skirt and bodice, the gown form is cut low-necked and short-sleeved, and the bodice is worn as usual; but there are no tight skirts, band or heavy dragging skirts, since all the weight comes from the shoulders.

In conclusion I would offer as the strongest argument for the change, that in a wide experience I have never known one who really adopted the system to drift back into the old slavery. It is a little hard for some to make the change for various reasons, but from existing facts I know it to be harder still to give it up after once having tried it.

"YES, dear wife," and he closed his eyes, "the end is near. The world grows dark about me. There is a mist around me gathering thicker and thicker, and there, as through a cloud, I hear the music of angels—sweet and sad."

"No, no, John, dear; that's the brass band on the corner."

"What!" said the dying man, jumping from his bed and flinging the bootjack at the leader, "have those scoundrels dared to come around here when I am dying!" And he recovered.—*Life.*

WAGGS (to young matron with the perambulator): Good morning, Mrs. Fullbloom! Are you taking the son out for an airing, or the heir out for a sunning?

Mrs. Fullbloom: Neither, Mr. Waggs. Baby is a girl.—Life.

YOUNG FOLKS' COLUMN.

An Old Fable.

Written for the RURAL PRESS by M. R. JOHNSON.

Dear little readers, have you never read the story of the fox and the stork?

A fox went out one beautiful, bright, sunshiny day for a long stroll, and took with him his young sons, all arrayed in their best dress. It happened, as these great people walked along, there came from the opposite direction an old family friend who for some time they had not seen. This friend was Madame Stork; she had also with her, for their afternoon airing, her two very beautiful daughters.

The fox seemed delighted to have met Madame Stork, and very cordially greeted herself and daughters, and lavished upon each many compliments, also adding that he should be so pleased to have his sons and her daughters thrown more frequently together, and then and there extended to them an invitation to dine at his home on the morrow. Madame Stork very readily assented, and, smiling, she thought to herself what a fine time was in store for her.

After bidding the ladies "a pleasant afternoon" and "good day," the cunning foxes went off to a neighboring wood in search of dainty game, of which they would prepare a most tempting bite for the great dinner on the morrow. Luck seemed greatly in their favor, and after a few hours spent in the wood, they returned home laden with all they could well carry.

According to her promise, the lady, with her daughters, each looking very charming, came to dine with the family of Mr. Fox. This fine gentleman had taken great pains and trouble to decorate the walls of his rooms with the finest and most tempting of game. Madame Stork looked about her in undisguised pleasure, and was still admiring the beautiful quail and birds hanging so plentifully about when she was startled by the tinkling of the dinner bell, and being quite hungry, she, with her daughters, went immediately to the diningroom. What do you think, my little readers? Madame Stork was very angry and disappointed, for all the good things she had expected to enjoy, and the game that she loved so well, was prepared in such a manner that none could eat of the splendid dinner but the cunning foxes themselves. You must all know that storks have very long, slender bills, and cannot eat off a shallow or smooth surface. So all the invited guests could do was to sit and look and appear not to be hungry, or in any way notice the slight, which of course would have seemed unbecoming well-bred people. So, appearing in the very best of humor, she passed the time until she should return home.

Before going, however, she politely begged of Mr. Fox that he, with his sons, should soon join *her* family at dinner.

The very kind invitation was accepted, and, in a short time after, the day was arranged on which they should dine together.

In *their* turn the foxes thought upon what a grand time they should all enjoy, and of the dinner in store for them, for they had often been told that the family of Madame Stork lived well.

Now, instead of taking off to the wood, as the foxes had done, the Madame Stork and daughters started for a stream near by, in which were an abundance of turtles, fishes and frogs. Having caught of each as many as they could well use, they returned home to temptingly prepare a dinner for the guests who were to come on the following day. Madame Stork was a very fine cook, and seemed to try herself on making her dishes as inviting as was possible and she was successful, too.

Mr. Fox, to the satisfaction of Madame Stork, came in good season, and the dinner was hot and steaming as they took their places at the table. But, now, it was Mr. Fox's time to be dismayed and angry, and angry he was; he did not even try to hide his anger. Madame Stork saw that her game had proven a success, but did not let on at all; she only insisted the harder that Mr. Fox should "eat" and "enjoy himself," saying "put in your bill," "eat and grow fat," and all such things, until the foxes were wild with suppressed rage and hunger, too.

At last, the daughters of Madame Stork could stand the joke no longer and began to dance and shout aloud "that 'twas only *tit for tat;*" this, of course, did not mend matters, and in extreme disgust with himself and everybody else, and Madame Stork more than everything else together, he said his adieux and went to his home, after having been caught in the trap laid by himself.

If my little readers will think well, I am sure they can see the good moral taught in this fable. If the fox had done as he wished to be done by, perhaps he would have enjoyed the dinner of Madame Stork better.

A Halloween Party.

Children born on Halloween are said to be able to see and converse with fairies, witches and other supernatural beings, which reminds me that I once went to a delightful impromptu and informal Halloween birthday party, writes Alice Willard in the October *Ladies' Home Journal.* The invitations were sent by telephone and messenger on the very morning of Halloween, and all arrangements and plans for the evening's enjoyment were made on short notice. The rooms were lighted by candles instead of gas; pumpkin jack o'-lanterns stood in unexpected places about the halls and rooms. The mantles were stacked with brightly polished apples and, fancy dishes of nuts and raisins, grapes, oranges, figs, dates and homemade candies were set everywhere about the rooms, and every one was expected to help himself to anything he wanted at any time. Apples were suspended from the gas fixtures, the "luggies three" were there, and quarts of chestnuts with which to discover, at the hard coal fires in the grates, whether lovers were true or not. All the old customs which were practicable in modern parlors were tried. The festivities ended with a dance, and at half-past eleven we turned our faces homeward, to arrive in time to see, if possible, some of the strange sights which are supposed to appear on Halloween at "the very witching time of night."

CHILDREN NEED SLEEP.—Children, until they are twelve or thirteen years old, should have at least ten hours sleep, eleven is better; until eighteen or nineteen, nine hours is none too much, writes Mrs. Scoville in her valuable department, "Mothers' Corner," in the October *Ladies' Home Journal.* In this country our children inherit nervous temperaments. No hygenic measure soothes, quiets and strengthens the nerves like plenty of sleep. Children should never be wakened in the morning. Yet the demands of household convenience and the claims of school make it necessary that they should be out of bed at a certain hour, usually not later than seven. To make this possible, and give them their fair share of sleep so that they will be ready to waken of their own accord, they must be in bed between eight and ten, according to their ages. If bedtime is made pleasant to them, as mother-love can make it, with a story, a little talk over the events of the day, with loving words and ministrations, the hardship of banishment to bed will be robbed of most of its bitterness.

IN a hall in Glasgow a few weeks ago there was a lecture on "Marriage and After." The lecturer said that men should kiss their wives as they did when they were a year or two married. When the lecture was over an old man went home, put his arms around his wife's neck, and kissed her. Meeting the lecturer next day, he said:

"It's no go."

"What isn't?" said the lecturer.

"Weel," said the man, "when I kissed my wife she said: 'What's gone wrang wi' ye ye auld fool, ye?'"—*Boston Globe.*

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AGRICULTURAL NOTES.

CALIFORNIA.

Butte.

LARGE YIELD OF PEACHES.—*Register*: Charley Charvet of Thermalito tells us that from 11 peach trees he preserved 400 pounds of fruit, sold $10 worth of ripe fruit and $12.50 of dried fruit. Estimating the 400 pounds at two cents per pound, gives us $8, which, added to the $22.50, makes $30.50 for the 11 trees, or $2.75 per tree. This, at 100 trees to the acre, would be $275 per acre. From one tree he picked 672 pounds of peaches and from another 540 pounds.

STRAWBERRY GUAVA. — Oroville *Register*: Each year the list of fruits in this section of California extends. We were presented with a box of strawberry guavas from the Rancho Manzanita owned by Power & Son. The location is in the low foothills east of Oroville. The fruit was fully ripe and of a fine flavor. This fine fruit is a native of the West Indies and Brazil. There are several varieties, but in the islands the white guava is mostly cultivated, while in Brazil the red or strawberry guava takes the lead. This variety has been successfully introduced into Florida, where it forms a little tree six or eight feet high, and into southern California where its cultivation has been found profitable. The fruit is grown from the seed, but it is more profitable to buy plants eight or ten inches high from nurseries. The little shrubs bear the second year and are very prolific. They should be set as thickly as grapevines. Mr. Powers informs us that they stood the winter without any protection, and we think they will become a profitable fruit in this section. They are eaten fresh, or by picking some days before fully ripe, can be shipped long distances. They ripen during September, October and November. The leaf is a glossy green and the blossom white. They are considered the finest fruit grown for making jelly, and in the southern part of the State have been found very profitable.

THE LOQUAT.—*Register*: While this State has many fine varieties of fruit, the loquat is one that appears but little known. There are numbers of trees raised in this vicinity and in many localities in Thermalito and Palermo. The tree is a beautiful evergreen with leaves from 8 to 12 inches long, small white blossoms and egg-shaped, yellow, plum-like fruit. The tree blooms in January and ripens its fruits in April while other fruits are scarce. The loquat is subacid in flavor, with a large kernel. It is excellent for pies and sauce, especially when mixed with apples, while for jelly it is unexcelled by any other fruit. The flavor of the fruit is a little peculiar and combines that of the tamarind and the pineapple. T. B. Hutchins says of the fruit growing on his place: "There appears to be two varieties, or else the trees are male and female, for while one tree bears heavily another does not. The heavy bearing tree may be easily told by its darker and greener leaves, which can be distinguished 50 yards away from the leaves of the other tree. It ripens here about the first of May, and has a fruit about the size of Coe's Golden Drop plum with a large smooth pit. All the fruit does not ripen at the same time, so that it remains on the tree quite a period before the last has been gathered." It stands this climate well and forms a handsome shade tree, though rather slow of growth. This tree is cultivated extensively in Florida and lower Louisiana, and it is stated that large profits have been realized from the sale of its fruit. The tree was originally brought from Japan, and is sometimes called the Japan plum, but this is a misnomer.

Calaveras.

A MONSTER GRAPEVINE.— Mokelumne Hill *Chronicle*: In the garden of J. H. Zumwalt, who resides at the head of Spring gulch, about a mile and a half from this place, can be seen probably the largest grapevine in the State. The vine is three feet and a quarter in circum- ch[illegible]rence at its starting point, and has been then[illegible]ined by Mr. Zumwalt by supporting it on the ms about six feet apart and about five feet

Fina until the vine has now reached the strode [illegible]ous length of 102 feet. The vine last sorry fo[illegible]elded a ton of grapes, and Mr. Zumwalt burns, ga[illegible] at there is more than a ton on the and then [illegible] year. There is also in his garden an [illegible]ree that was planted in 1862 that is out, "Kate; [illegible] feet and two inches in circumference and picture[illegible] nearly 60 square feet of ground. our new Sco[illegible] last year from this tree was 147 grimy, actuall[illegible]anges being very large and sweet. penetrating."

Fresno.

We do not k[illegible] SECURES HIGH PRICE FOR RAISINS. yet. He is a "[illegible]for: Colonel William Forsyth that time, attach[illegible]xes of his best raisins for a drawing slender s[illegible]. This foots up to the neat sum I romped with b[illegible]ound. This item in itself is her bath and cle[illegible]. The price of ten cents a kitchen; run the seaol. Forsyth has established ted for a while with raisins, and he has always is here at a neighbo[illegible]ality of his goods was ex- and, forgetting about [illegible]amended it to be. His into "library corner," a[illegible]; his grapes are of the corner of our cosy littl[illegible]ys intelligent labor; he books and pictures. [illegible]f the work of picking, [illegible]ting is properly done.

Springing up the cu[illegible]urse in the past, he has light, I noticed some cob[illegible]t is possible to grow, Only a day or two before[illegible] a first-class grade of and there they were again[illegible], those who are ac- [illegible] go to him when an ting the broom and short [illegible] is wanted. The 5000 at the webs. How it happe[illegible] sold to the largest either my ladder was no[illegible] world are the very my strokes were too vigor[illegible]rth as a sample of [illegible]ice, and what care, [illegible]lligence can pack. [illegible]r than the market will stand as a general thing, but in what Colonel Forsyth has done there is a lesson for all vineyard men to learn. They can see what care in packing and growing and curing will do. It can be seen that it is quality more than quantity that counts. It can also be seen that a reputation has an immense amount to do in the successful marketing of raisins. Dealers cannot open and inspect every box of raisins they buy, and they are willing to pay a good price if they can be certain that they are getting a first-class article and not a second-class article under a first-class brand. The profit on raisins of this sort is enormous, even when the careful culling has thrown out a large part of the crop. The raisin vineyards in Fresno are in their infancy, and the men have to learn much by experience. Since this is the case, the experience of successful men goes a long way toward educating others in the work of making the raisin output of California better.

Humboldt.

ANOTHER CREAMERY. — Ferndale *Enterprise*: All the arrangements for the building of a creamery at Swanger's were completed at the adjourned meeting held at Table Bluff hall on last Saturday evening. No difficulty was found in disposing o' the stock on hand, and the result of the meeting was that a company to be known as the "Diamond Springs Creamery Company" was organized with a capital stock of $15,000, and corporation papers were drawn up and acknowledged by Notary P. F. Hart, of Ferndale, who was present. Directors for the first year were elected, as follows: W. P. Thomas, M. Fitzsimmons, N. B. Patterson, H. M. Dickson and H. Van Duzer. R. F. Herrick, M. Fitzsimmons and J. C. Foss were elected a committee on by laws, and W. P Thomas, M. Fitzsimmons, H. Van Duzer and C. Paulsen were elected a committee on site. Over 2100 cows were represented by their owners at the meeting, and much enthusiasm over the project was manifested by all present. On Monday last, Surveyor Herrick, in the presence of the site committee, surveyed of a site for the new institution in the vicinity of Swanger's station; and Mr. Thomas informs us the work of erecting the buildings will be commenced forthwith.

Kern.

RAISIN CROP.—Bakersfield *Echo*: Loads of raisin-trays and sweatboxes are still going countryward. It is said that but few of the vineyardists bought enough trays and boxe in the first instance, the crop being so much larger than was expected. The original estimate of 30 carloads for Rosedale will have to be revised.

WATER IN THE DESERT.—Bakersfield *Californian*: There is something rather peculiar about the finding of fresh, pure water at a depth of 400 feet, by the railroad company, on the line of the branch road to Asphalto. Other people have bored wells and looked for fresh, soft water in that region, but failed to discover anything but salt and alkali. There is no water in the coast range mountains except some alkali springs in the foothills. When the road was built the company found it necessary to secure water in some way. In order to meet the pressing demand, they concluded to sink an artesian well at a place one mile west of the Kern Valley Water Company's canal, about 35 miles from Bakersfield. The altitude at this point is about 140 or 150 feet above the lowest depression in the valley, and beyond that the country has always been considered a desert, reaching through the foothills into the mountains. After sinking 400 feet they struck a flow of water, which came bubbling up as pure and soft as that of a mountain stream, and in such quantities as to supply all necessary demands. As the coast range is not a watershed, of course this water comes from the Sierra Nevadas, and it seems that the farther from the great reservoir the nearer the water approaches the surface. The termination of the road is at Asphalto, 35 miles beyond, and this extraordinary streak of good luck seems rather remarkable. It will furnish water for locomotives and may induce a colony, as the land in the vicinity is very rich, and only requires the application of water to make it exceedingly productive.

Los Angeles.

CANNED-FRUIT SHIPMENT.—L. A. *Express*: A special train of 23 cars, loaded with canned goods from the Southern California Packing Company, started eastward from this city Oct. 6th over the Santa Fe. The goods are consigned to various cities in the East, and it is said that 100 more cars similarly loaded are to shortly follow. This, the largest special train ever sent out of the State, was decorated with banners and was photographed and dispatched on its way.

Modoc

CATTLE SHIPMENT.—Adin *Argus*: W. H. Nelson, a few days ago, started two bands of cattle—400 in each band—for the lower country market. Mr. Nelson was here Sunday on his way down, expecting to arrive at about the same time the cattle do. He will be back in about four weeks and, we understand, will at once begin buying cattle in Big valley to make another band.

Napa.

THE VINTAGE.—Napa *Register*, Oct. 7: Viticultural Commissioner E. C. Priber, as manager for the Napa Valley Wine Co., had a week ago bargained for all the grapes he cared to crush this season at the prices then prevailing ($15 maximum), but learning that there was a disposition to bear the market and run grapes down to $10 per ton, he made more room and reentered the field as a buyer. He says prices have dropped within a week from $15 to $12@ $13 for Zinfandels; this by reason of the closing down of some wineries and the consequent lack of competition among buyers. The three Napa valley wine cellars with which he is connected—East Napa, Yountville and Glendale—will this year probably make an aggregate of 375,000 gallons of wine. The Napa Valley Wine Co. commenced crushing at their cellar in East Napa, Monday, the grapes coming from this neighborhood. Grape-picking and wine-making have been going forward in and about St. Helena for the last ten days. The crop is exceedingly light and the prices realized are anything but encouraging to the grower.

Orange.

WALNUTS AND FIGS AROUND CAPISTRANO.—Cor. Santa Ana *Blade*: Walnut-gathering is at hand—fully two weeks earlier than usual. On account of the abundant crop, the nuts are not quite up to the standard in size. Mr. Hoyle, superintendent of our cannery, has gone south to purchase the fig crop, which will be manufactured into his delicious preparations of that fruit.

A PRODUCTIVE VALLEY.—*Blade*: No stranger need ask a question concerning the productiveness of the Santa Ana valley. All he has to do is to watch the lines of trail wagons loaded with baled hay, corn, barley, hogs, vegetables, etc., as they convey the products of the farms to the depot for shipment.

LARGE BLACKBERRY FARM.—*Blade*: A drive of 40 minutes from Santa Ana brought us to the head of the Bolsa drainage ditch, where we found several men and teams at work on the waterway. Near the head of the ditch is where Garner's and McDonald's blackberry patches are located, and the reporter found no difficulty in locating the patch, but little in locating the berries, and no trouble in eating them. Although immense quantities have already been gathered the vines are yet heavily loaded, and some are even now in blossom. After regaling ourselves on the berries we drove on, and further along the ditch, where we found many more men at work. Fully 40 hands are pushing the work along as quickly as possible, and it is safe to say that the ditch will be completed within the next two weeks.

VINEYARD NOTES.—Anaheim *Gazette*: Otto Rust and C. Sorenz are making wine, and Tim Boege and H. Wehmeyer are getting ready to start their crushers. Most of the grapes come from Artesia and Yorba and are of fine flavor and appearance. Mr. Rust informs us that the grapes are better this season than for many years past. He will make about 10,000 gallons of wine or more, and is paying from $12 to $14 per ton for the grapes. Mr. Wehmeyer's young vineyard on West street is doing well and shows no sign of disease. It is probable that wine-making will become again one of the leading industries of this section.

A BEET SUGAR FACTORY.—*Gazette*: The committee appointed to formulate a charter and adopt a set of by-laws for the land company organized in this city to purchase land in aid of the cooperative sugar factory, met at Mr. Chynoweth's office. The full committee was present, viz: Messrs. C. H. Gosch, H. W. Chynoweth, Dr. Pfeninger, P. Weisel and Ed. Pellegrin. Dr. Pfeninger was elected chairman and Mr. Chynoweth, secretary. The name of the company will be "The Anaheim Sugar Beet Land Co.," and the capital stock has been placed at $60,000, divided into 1200 shares at a par value of $50 per share. The affairs of the company will be under the management of a board of five directors to be elected annually.

THE CORN CROP.—Santa Ana, Oct. 8: The corn stalks are yet green in many places, and the crop is ripe and ready to be gathered. The The yield will be fully up to the average this year, and an average corn crop west of the river means something more than it does in any other land.

San Bernardino.

A NEW FIG.—Riverside *Press and Horticulturist*: J. E. Cutter believes he has found a variety of fig which will be of considerable value, at least for table use at home and possibly for shipping when the distance is not great. He received from the department at Washington some years since seven varieties of the fig, which are now in bearing. Among these are two which appear worth propagating. The Prolifero is of good quality, but has a tendency to sour, like most of the figs grown here. This same defect was found in all the others grown except the Dotato, which has ripened perfectly. It is a small, light-colored fig, with a rather thick skin, but most delicate in texture and flavor. The specimens of the Dotato that Mr. Cutter submitted to us for testing were the finest-flavored of any we have ever eaten, and we should place it at the head of all we are acquainted with for table use. It is said that this variety is never exported from Italy, but used entirely at home. We can think of nothing more delicious than such fruit when, with the skin removed, it is sliced in cream for dessert. If it were inferior in flavor, it would still be worth propagating if it shall continue to prove free from the souring which affects the fig so generally in irrigated sections.

PREPARING AGAINST FROST.—*Press and Horticulturist*: Very many orangegrowers in the valley are making preparations to checkmate Jack Frost, should he put in an appearance this winter. It has been clearly demonstrated that a number of fires in an orchard will raise the temperature enough to save the fruit during the coldest weather ever experienced here. It has been found that iron pots with coal is about the simplest, cheapest and most effective means; but Dave Ormand told us the other day that he had invented an arrangement to burn oil that would do the work cheaper than coal and with less trouble. If proper precautions are taken, no oranges need be injured.

Santa Barbara.

DAIRY FEED.—Santa Maria *Times*: When we have a heavy rainfall and an abundance of feed on the ranges, there is but little attention given to preparing feed for use late in the season. This was the condition in which our dairymen found themselves one year ago, and, as a consequence, they suffered some loss before grass

Continued on next page.

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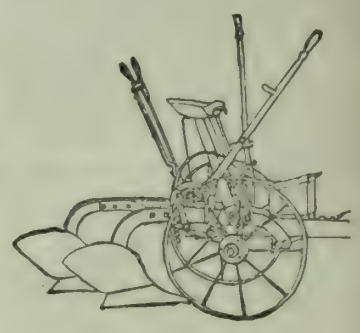

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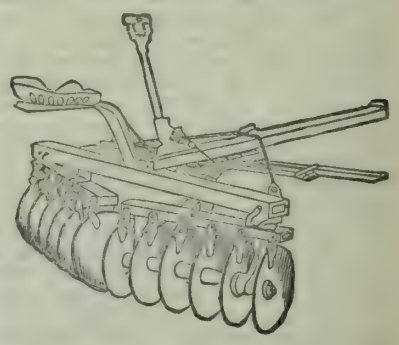

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Agricultural Notes.

Continued from preceding page.

came again; but they profited by it and are now better prepared for the hard part of the season than for years. All the dairies between here and Guadalupe are well supplied with hay, straw, pumpkins, carrots, etc., for feeding cows giving milk, and their dry stock is turned on stubble pasture. The dairies below Guadalupe and around the lake still have an abundance of feed on hand, although they all complain that their cows are drying up quite rapidly for the past few days. Yet there is plenty of dry feed, and all the stock will commence the winter in good condition. Bonetti, Mead, Adam, Sherman, Brown, Klein, Mathison and others are feeding heavily of dry feed. In Green canyon the usual fall raise of water has already brought a considerable growth of green feed. B. Pezonni always has an abundance of feed. At the Arellanes ranch they are preparing to turn in on the large stubble-fields on the ranch. There are also several acres of corn and pumpkins which will be left on the land for the benefit of the stock. Mr. Arellanes only runs his dairy about four months each year, preferring to give the young stock the benefit of the rest of the season. His ranch, consisting of 3000 acres of open range and 2000 acres of farm-land is carrying at present about 1500 head of stock. He has not sold off any beef cattle this year, preferring, rather than take the low prices offered, to keep them over another year, which he certainly would not do if there was any scarcity of feed.

A POULTRY ASSOCIATION INSTITUTED.—Lompoc *Journal*: A meeting relating to the poultry interest of northern Santa Barbara county was held at the Lompoc Lumber Co.'s store, and an Association was formed under the name of Lompoc Poultry Association. The following officers were elected: W. S. Bouton, Pres.; Waller Richardson of Lompoc; J. J. Holloway of Los Alamos; Mrs. H. N. Gifford of Stuart, Vice-Presidents; H. N. Evans, Sec.; W. H. Sudden, Treas. An Executive Committee was appointed consisting of Mrs. Waller Richardson, T. C. Callas, H. L. Hall, Wm. Barker and E. Jacobs.

Sutter.

FRUIT NOTES.—Yuba City *Farmer:* The fruit season is nearing a close, as almost all the late varieties of peaches, apples and other fruit have been picked. Some prunes and peaches are yet on the trays drying, but in a week or two everything will be inside the packing house or on the way east to market. In the vineyards a large amount of grapes are being turned for the last time, the greater portion now on trays being of the second crop. Wine grapes are about all gone. The trees and vines are becoming brown and are losing their leaves to some extent. In all the orchards the trees, while having produced a large crop, are in good condition, having been properly pruned to bear the fruit and still retain their shape. * * * * * R. C. Kells has a force of men at work packing his large prune crop. The fruit dried excellently under the improved system of dipping, etc., and is now ready for the market. Over two carloads have been sold to eastern firms at from 9 to 10½ cents per pound, according to quality. Mr. Kells expects to ship a carload or two the first of next week.

Ventura.

POTATO CROP.—Ventura *Free Press*: Potatoes are a good crop this year. In conversation with J. B. Alvord, of Colonia, the other day, it was learned that he had sold several carloads of potatoes this season, but none for less than $1 per 100. They are selling the refuse potatoes, including the small ones, to the Hueneme starch factory for 30 cents per 100.

Yuba.

IRRIGATION WORKS COMPLETED.—Marysville *Democrat*: A meeting of the directors of the Brown's valley irrigation district was held in the office of the directors in Browns valley on October 4th. The water was reported to be now running through the fifth or Pan Handle district, comprising 12,000 acres of land, and the farmers in that vicinity are all using it. Water would have been running through Browns valley last week had there not been a dispute about the contract, work leading from Dry creek to Finnimore's place not being up to the specifications. The engineers and superintendent claim that the ditch there is constructed shallower and narrower than what the specifications call for, and refuse to accept it until it is enlarged. Therefore, no water has been allowed to run through that part yet. Only about 1000 inches of water is being run down the main canal into the fifth district, until the canal gets thoroughly puddled and soaked, when the volume will be increased.

WHEATLAND HOP YIELD.—*Four Corners:* The Wheatland hop yards have yielded about 6710 bales, or 1,206,800 pounds of choice hops this season. We have secured the following reports by yards: John and William Roddan's yards yield about 1700 bales, of which 1210 bales have been delivered on contracts. S. D. Wood's yard turned out 1100 bales, and but 353 bales have been shipped on contract. J. H. Durst's yard turned out 610 bales; 201 bales have been delivered on contract and 280 shipped to London. D. P. Durst's total crop is 3300 bales; about 600 have been shipped on contracts and 1000 shipped to the English market.

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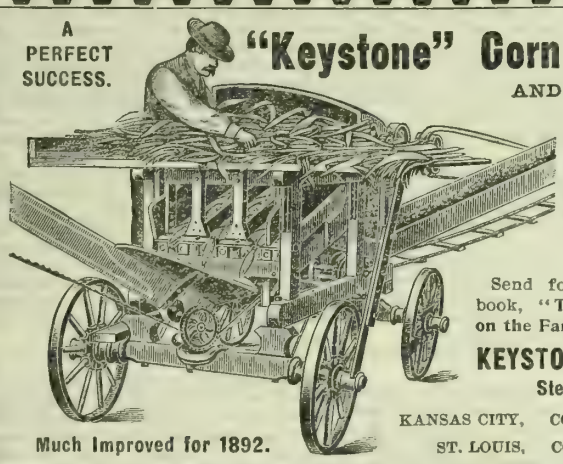

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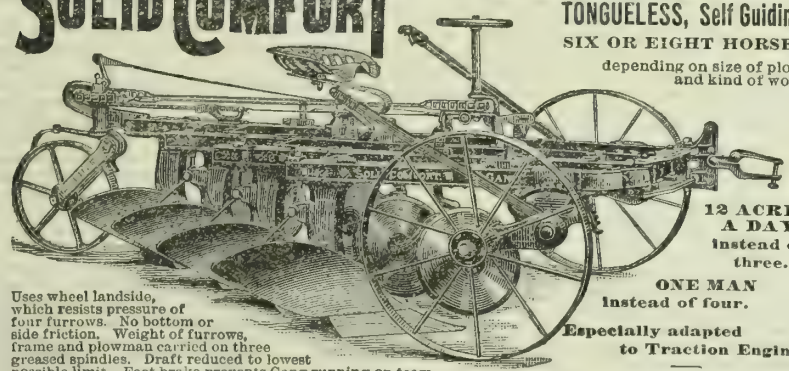

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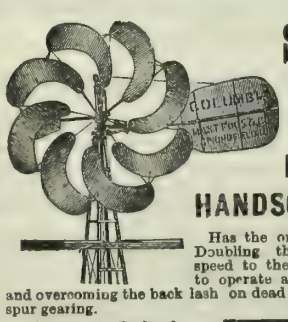

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Announcement.

By unanimous vote of the State Grange in session on Friday last at San Jose, the PACIFIC RURAL PRESS was designated as its "medium of official communication" for the coming year. In accepting this appointment the manager of the RURAL pledged the paper to print all official reports; such discussions of Grange conditions and policies as should be submitted from time to time by leading members of the Order; reports of important doings by subordinate Granges; and to maintain a weekly department of Grange news under the editorship of some member of the Order, who should be personally satisfactory to the Executive committee. Within these lines the manager pledged the paper to give to Grange matters as much space, be it great or small, as the volume of important news should require.

This arrangement restores the old relationship between the RURAL and the Grange, with this difference, namely, that under it the Grange Department will be an incidental feature of the regular edition of the paper, going to all its readers; not, as formerly, a supplemental addition, going only to members of the Grange. The old "supplement," it will be remembered, was largely devoted to minor social and personal interests, while, on the other hand, the new department will be devoted almost exclusively to broader subjects. Important personal news and the more important doings of the local Granges will be given; but the editorial plan will be to subordinate this sort of news to considerations of broader significance and greater importance. This plan was frankly talked over in the State Grange between the manager of the paper and the delegates present, and the official arrangement was made upon a fair understanding as to its scope. It is proper to say that the new engagement puts no obligations or limitations upon the general policy of the RURAL, and that it will in no wise affect its editorial character.

The editor of the Grange Department has not yet been chosen, and will not be till the meeting of the Executive Committee some time within the next two weeks. When the selection is made the fact will be duly announced.

The National Grange.

The twenty-sixth session of the National Grange will be held at Concord, New Hampshire, commencing on Wednesday, November 16th. Worthy Master Davis, of the California State Grange, will be in attendance. Mr. and Mrs. Davis expect to leave Santa Rosa on the evening of November 8th and go direct to Concord, where they will remain through the entire session. Mr. Davis has promised to supply the RURAL with notes of the session for publication in our Grange Department.

The State Grange.

Reported by FRANK S. CHAPIN, of Tulare Grange.

The twentieth annual session of the State Grange closed last Friday, after a very pleasant session lasting four days. The weather was perfect, and the beautiful city of San Jose was in gala attire, as well it might be with the races, Grange and Mills' revival meeting going on at the same time.

The meeting was held in the new Unitarian Church, which is designed to provide for its congregation a social home where they can have entertainments and enjoy all innocent pleasures as well as teachings of ethics, morals and religion.

Positive Results of Session.

LEGISLATIVE COOPERATION.—In company with other industrial organizations, a committee of the Grange met in San Francisco on May 23, 1892, to agree upon needed legislation. They concluded to recommend a preamble pledging candidates to the support of these five propositions, briefly referred to here, as they have often been noticed in these columns elsewhere.

(a) Election of U. S. Senators by direct vote.
(b) Law providing for mutual fire insurance.
(c) Protest against extension of time by Government for payment of debt due from U. P. and C. P. railroads.
(d) Reassessment of property that has in part or wholly escaped taxation since 1883.
(e) Graduated income tax upon amounts above $50,000 per year, reduced by amendment to $10,000.

A series of resolutions embodying these points came before the State Grange with a favorable recommendation from the legislative committee, and it was moved by John Tuohy, of Tulare, that the questions be discussed seriatim. The first proposition met with only slight protest and the second met with general approval. Upon the third, Past Master J. V. Webster gave the figures and arguments very much as they have been published, briefly as follows:

"In '63 & '64 the Government guaranteed for the Union and Central Pacific R. R's $64,000,000 in bonds and when further aid was necessary took second mortgage in lieu of their first. Three years since the combined debts of the two roads aggregated $120,000,000 and they were thought by commissioners to be worth $108,000,000. Outside the Government their debts were $63,000,000." The proposition favored payment of balance of indebtedness, taking possession of property and using roads as a nucleus for a government system. The proposition was not carried to any decisive issue.

The fourth proposition excited considerable warm debate in which it was asserted that a railroad costing $15,000 per mile had passed through the speaker's farm and had been assessed for $25,000 per mile. Considerable sympathy was manifested for those who had resisted payment of taxes based on such an assessment, thus showing a desire of the Grange to be just. General sentiment favored a reassessment on a fair basis of valuation hoping that aggrieved taxpayers would meet them on the same grounds and the matter be finally settled upon the basis of justice.

The graduated income tax was originally designed to effect large corporations but Brother Tuohy, of Tulare, who had devoted much study to the subject of revenue and prepared an excellent paper, pointed out that it would be unjust to tax in this manner property that had already been assessed on its realty or personal property but that it would be a wise provision if protected against double taxation and applied to large salaries and other incomes that now pay no revenue for Government protection. To that end the amount was reduced to $10,000 per year.

THE BATTLE GROUND OF DEBATE.—The preamble to these resolutions, whose essential feature was a requirement of pledges from candidates was warmly opposed in discussion led by W. W. Greer, of Sacramento, who held that candidates most ready to pledge themselves would be the quickest to sell and the cheapest to buy, and that a pledged candidate would surely be a defeated candidate, etc.

Brother Walton thought it wise to copy methods of those who win rather than waste strength and lose influence by seeking the unattainable. Brother Tuohy thought that the Grange should go slow and drive in the middle of the road urging such measures as will prove of benefit without incurring fatal opposition. I. C. Steele expressed similar views. Bros. Webster, Coulter and Huffman put themselves on record as ardent champions of radical reform and some seemed to regard the failure to pledge candidates as the Waterloo of the Grange, but the feeling of the majority seemed to be that "it is better to go around the road to make a friend than across lots to make an enemy."

In this connection it was suggested that the Executive Committee have authority to employ a Grange representative, who should attend sessions of the legislature, endeavor to unite members of all parties who favored Grange measures in their promotion, carefully report the vote of each member on such questions and serve the cause generally in a way that it is not practical for a member who cannot leave his desk without risk of losing his vote upon some measure of importance. This suggestion was not pushed to a decision.

RURAL MAIL DELIVERY.—It was argued that as people in the country share in the expense of free mail delivery they should enjoy its convenience, but discussion did not include details of its accomplishment. The general idea was warmly commended.

MARKET INFORMATION.—A resolution was passed asking the Legislative Committee to urge the passage of such appropriation as will enable the State Board of Horticulture to furnish as complete information upon the distribution of fruits as they now do regarding their production. The resolution was drawn by one who had carefully observed for a long time the economy and efficiency with which the duties of that board are performed, embracing in their regular work and annual reports the most complete information within our reach regarding the production of fruits. Growers are realizing more fully every year that the disposal of their fruit is a question quite as important to them as its production. The administration of this board can be extended to embrace wide correspondence covering facts, statistics and suggestions regarding markets that shall be accessible to all papers and individuals much cheaper than it can be done by a new board.

Supplemental to this resolution was another, requesting our delegate to National Grange to secure its influence with the State Department, through the Department of Agriculture, to secure most complete consular reports regarding production of fruit in such competing countries as Italy, Spain and France, and such consuming countries as Great Britain. Such information should be furnished to the people through the proposed annex to the Board of Horticulture.

OLEOMARGARINE.—There was also a resolution asking for action necessary to make provisions against fraudulent sale of imitation butter, effective. It may pass through the hands of jobber and wholesale dealer in compliance with the letter of the law, and yet reach retailer and consumer as butter.

The last three are not measures likely to provoke any opposition, save from a limited number of grocers, and should easily prevail.

RIGHTS OF WIDOWS.—It is urged that some law be enacted to give widows the same control over community property as widowers have. It is not apparent that any good reasons can be urged against the justice or expediency of this measure. When a woman is left alone with the care of estate and family she generally has enough trouble without unnecessary legal complications and expense. The lawyers may oppose this measure.

DUTY ON GRAIN SACKS.—There was a demand that Congress remove the duty on sacks which are a leading article of farm supplies. Considering the present prices of grain, sacks can hardly be classed among the luxuries of the wealthy.

MINING DEBRIS.—There was a demand that the legislature sustain the court in the enforcement of laws against mining debris so destructive to agricultural interests.

MEDIUM OF OFFICIAL COMMUNICATION.—This question was a leading subject of the session. As our readers are well aware, the manager of this journal and officers of the Grange failed last spring to come to an understanding as to terms upon which Grange news should be promoted, and arrangements were made with other papers to publish official news. Both these papers say they received very little patronage from the Grange, and the members say that they have not known what was going on and have been losing interest, as was to have been expected. The old Scotch Dominie said: "My dear children, it is vitally important that ye be born again, but almost equally important that ye be born right the first time." So the Grange might say that it is vitally important that their doings, plans and prospects be suitably published, and equally important that such publications be read. A third essential is that it find readers outside as well as inside the Order, for the main hope of carrying measures and increasing their strength is among those of kindred interest not yet inside the gates. For this reason they seek, as a medium of communication, a journal that has a weekly and wide circulation, and that commands general confidence of their class. For these reasons they were delighted to have the manager meet them in friendly conference and concede all that they could unite in asking. By terms of his proposition, published elsewhere, the paper is to keep its readers thoroughly informed upon Grange interests, and the Executive Committee has a voice in selection of Grange editor. Those desirous of extending the principles and promoting the measures urged by the Order will interest themselves to see that the paper reaches those families that they wish the Grange to reach. Members returned to their homes feeling much more sanguine about the near future than they have for a long time, and determined to work to get new readers for the paper that stands ready, through their aid and communications, to build up their Order.

Lost Causes.

The resolution favoring the Nicaragua Canal was favored in the abstract and opposed in the concrete—that is to say, no one was able to point out a way that Government could safely aid in its construction. The Warner Miller franchise and the Clayton-Bulwer treaty stand in the way of Government ownership and control. Our past experience warns us against subsidizing or endorsing a corporation, and England has failed to secure, in America, that warmth of sympathy inviting a partnership in such ownership and control. Any measure of promotion not liable to serious objections of this nature may rely upon enthusiastic support from the Grange.

FIBER CULTURE.—Amos Adams of San Jose introduced and ably advocated a proposition for the legislature to turn over the State's property in Santa Clara formerly occupied as a home for the feeble-minded to the care of the Executive Committee of the State Grange as a culture station for experiments with fiber plants and machinery, especially ramie. To purchase machinery, put the station in order and provide expenses for two years, an appropriation of $10,000 was asked. After the institution became self-sustaining, it was proposed to use its profits in encouraging of fiber culture, thus diversifying agricultural industries. There was urged in its favor the value of the product—the many uses to which it can be applied; the need of more definite information; the large body of land in California especially adapted to this culture and to little else; the desirability of making wise use of State property now idle; and the general advantages of diversified industry. On the other hand, it was urged that the soil was adobe underlaid by gravel cement and especially adapted to the poorest growth of ramie possible; that fostered industries seldom become profitable; that the Grange could not well object to tendency to create many and costly commissions when soliciting such aid and control for itself. It was also suggested that such experiments were properly functions of U. S. Culture Stations and were being conducted already at several places in California, and that any further encouragement should be directed along those lines. The minority report, carrying with it the latter views, prevailed.

PATRON'S RELIEF ASSOCIATION.—This had been carefully organized upon similar lines to those in successful operation among Masons and workmen, and the general plan was discussed upon a resolution asking for an appropriation of $250 from the general fund to secure necessary applications for successful inaugurations. It was ably urged that it would strengthen the Order as it had other orders and prove a bond of sympathy and a help in time of trial. On the other hand it was urged that the general fund was the common property of all the Grange, whereas this measure would benefit only those who availed themselves of its advatages—that it did not make distinction in proportion to risk between young and old and that it substituted verbal statement for medical examination. The proposition was voted down.

THE PREAMBLE LOST.—As above noted the preamble to the cooperative legislative resolutions calling upon candidates for office to pledge themselves to the five measures presented was lost. This was perhaps the hottest incident of the session. The special significance was due to the fact that worthy Master Davis of the State Grange is now a candidate for Congress and that should the preamble be adopted he would be the first called up to pledge himself; and that by so doing he would place himself in opposition to powerful political elements in his district. There were whispers about San Jose that the effort to put through this preamble had its chief motive in an effort to down Mr. Davis, but there was nothing to support this charge.

Social Features.

The charming reception and welcome by citizens of San Jose was published last week. On Wednesday evening there was a poem by Maggie Downing Brainard acted in tableaux by young people of San Jose Grange to the great delight of the audience.

THE FARCE.—The tableaux were followed by a farce illustrating the sad tribulations of the original and only German John Smith "from Milpitas over." He had been attempting collections for the PACIFIC RURAL PRESS and found Bro. Overhiser unable to pay because too busy reading the Declaration of Purposes. Bro. Ohleyer could not pay because the slickens had covered his farm so deep that he found potatoes at the bottom of his 400-foot well and must take time to dig them.

The telephone rang for I. C. Steele, but John Smith stoutly asserted that the St. James was giving the best board in California for $1.50 per day, everybody else was doing the square thing and there was no steal in San Jose.

Bro. Wm. Johnston paid his bill promptly and it was certain that "he be Guv'nor pretty soon by and bye."

Bro. Coulter was too poor to pay until Senators should be chosen by direct vote of the people.

The incorruptible John Smith sternly refused to use his pull with the Grange against the election of E. W. Davis to Congress.

Don Mills would not pay, but they were pretty soon going to elect him a wife and then he would be all right.

In the midst of his severest trials, when money was gone, coat gone, shoes gone, and his body whipped black and blue, John Smith lamented that he did not belong to the Patrons' Relief Association already. He thought mutual fire insurance would never do unless Flint and Steele could be prevented from going on a strike. The farce was planned by Mrs. Amos Adams and the principal part acted by Secretary S. P. Sanders to the great delight of the audience.

THE LOVE FEAST.—This exemplifies the social work, in which the Order stands first among fraternal societies, and even as opposed to the judgment of older members, who have been accustomed to postpone this feature until most of the members have gone home, let us urge that it be given the second evening, when the Grange is at its best, and be organized and led by some one specially gifted in that line of work.

SUGGESTIONS FOR SAVING LABOR.—It was a great deal of work to get up that farce and for amateurs to train themselves to such a standard of acting as they showed. The personal Grange hits, which were the striking feature, were very attractive, but they might have been wrought into the literary exercises. Indeed, there should be enough at every State Grange who would be glad with essays, recitations, poems and songs to furnish all the entertainment needed to occupy one evening and the intervals of rest between business discussions. Let us try a home plan for next State Grange and enjoy the comfortable feeling that we are imposing no burden. It was manifest that the Chairman of Literary Committee should have work prepared in advance and should exercise certain editorial functions. It is for the interest of the Grange, as well as for encouragment of younger members that they appear at their best.

NORMAL SCHOOL.—Many visitors accepted the cordial invitation of the officers and were greatly pleased with the institution and its methods. The Training School, where teachers have actual practice under expert superintendence, was a very attractive feature.

WORLD'S FAIR EXHIBIT.—Dr. Mintie has been very energetic and successful in preparing the Santa Clara county exhibit, and the displays at the city Board of Trade rooms was highly commended.

EXCURSION TO MT. HAMILTON.—On Saturday morning most of the members remaining started on an excursion to the famous Lick Observatory, and thus ended one of those occasions which will alway bea pleasant memory.

The Next Session.

So many expect to attend the World's Fair next season that there was not the usual competition, and its location was referred to the Executive Committee.

When you visit a friend your pleasure depends largely on being made to feel that your entertainment has caused no special extra exertion, and that you are, for the time being, a member of the family. How it has been before, deponent saith not; but at Watsonville and Haywards it seemed as though every citizen had been on a strain for weeks for fear the State Grange should not be so elaborately entertained as it had been at some other place. At San Jose the members of the Grange felt strong enough without outside help, and must have made preparation their main business for at least a month. Permit the suggestion that future entertainments be on a less elaborate scale. Ceremonies of welcome, enlivened by song, are very appropriate and a proper recognition of local talent, but need not be burdensome to prepare for the first evening session.

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Kern is the largest county in the San Joaquin Valley. It has the finest climate for curing and drying fruits, etc.

The 400,000-acre territory of the Kern County Land Company is the pick of the county.

Its area is 5,184,000 acres.

Has the largest irrigation system in America.

The home of the peach, French prune, pear and raisin grape.

Planting and harvesting can be carried on every month in the year.

No rocks, hills or stumps on the land.

A failure of crops is unknown on irrigated lands.

Kern county fruits take the first prize at the State Fair.

Land can be made to pay for itself in less than three years.

Grows more alfalfa than any other county in California.

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Through 300 miles of main canals, and 1,100 miles of laterals, the great Kern river furnishes enough moisture to slake the thirst of the 400,000 acres already referred to.

Drought is out of the question.

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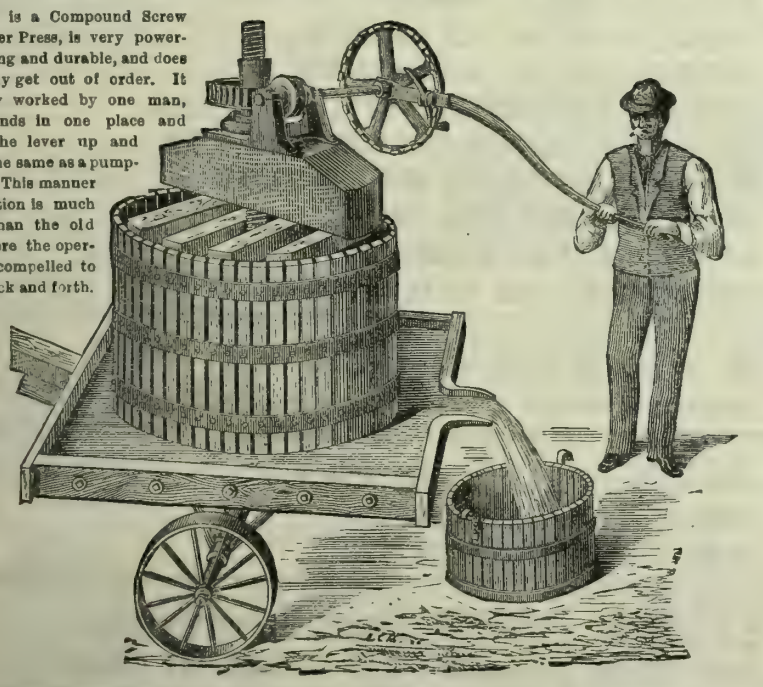

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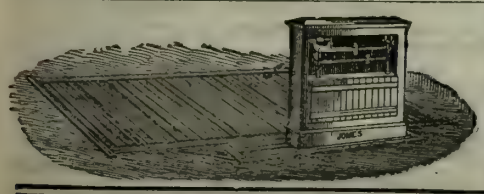

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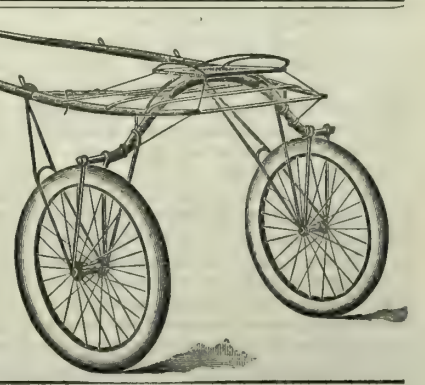

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How to Tell When Meat is Done.

The orthodox rule for the cooking of meat, fish and fowls is to allow a quarter of an hour to every pound, yet this receipt needs to be mixed with brains. Some families like rare, others, well-done meats; again, a joint may be unusually thick or remarkably thin; again, full-grown and mature meats, such as beef and mutton, are best with red gravy oozing from them; while immature or white meats, such as lamb, veal, pork, etc., are absolutely dangerous unless done through to the bone. A good rule is to allow 12 to 15 minutes, according to the taste of the family and the thickness of the joint, for the cooking of every pound of beef and mutton; 15 to 18 minutes for the cooking of every pound of pork, veal, lamb, ham, bacon, fish and every kind of fowl.

Accidents happen, however; the oven may be too hot or too cool, the fire too slow, and —what not; so a cook should learn to know by the appearance of the meat itself when it is sufficiently cooked. How can this be done? By carefully observing the appearance of the meat around the center bone or bones. If the learner be in doubt, the blade of a knife can be run in about half an inch, to the bone, and the meat slightly raised and examined for a moment or two. After one or two trials this will be found to be an infallible method. It is quite right that next to the bone, beef and mutton should be red and juicy, but if the beef be blue or the mutton has that strange, raw look peculiar to mutton that has just felt the heat of the fire, the joint needs a little more cooking; while white meats should be white, even to the bone, with the exception, perhaps, of lamb, which many people prefer with a little pinky juice oozing through.—Good Housekeeping.

RICE PUDDING.—Take a quarter of a pound of rice, and boil in a pint of milk until quite thick. If it should get too dry, add some more milk. Beat half a pound of butter to a cream, add one by one the yolks of eight eggs, a quarter of a pound of sugar, the grated peel of half a lemon, and the rice, which must be cold. Finally add the whites of the eggs, beaten to a stiff snow. Bake in a buttered mold, and turn out on a cake plate. Serve warm with a fruit sauce.

LEMON CUSTARD PUDDING—One cup and a half of milk, yolks of three eggs, the juice and grated rind of one lemon, half a cup of sugar; add the lemon last. Bake in a pudding dish. Beat the whites of the three eggs, and add three spoons of sugar, and spread over the top when baked; return to the oven and let it slightly brown.

SWEET POTATO WAFFLES.—Take two tablespoonfuls of mashed sweet potatoes, one spoon of butter, one of sugar, one pint of milk and four tablespoons of wheat flour; mix all together and bake in waffle irons.

A Valuable Publication.

The thirteenth edition of the "American Newspaper Annual" for 1892 is at hand. It is published by N. W. Ayer & Son, Philadelphia, and contains its usual vast and reliable array of information for publishers and advertisers, conveniently arranged and classified for quick reference.

A tabulated statement shows the total number of publications of all kinds in the United States and Territories and Canadian Provinces for 1892 to be 20,115, a gain of 1104 over the previous year. The following synopsis of contents will give some idea of its scope and value:

Catalogue of newspapers and periodicals arranged by towns in States in alphabetical order—embracing, besides the list of papers and the usual information concerning them, a gazetteer description of every place in the United States and Canada in which a newspaper is published; railroad and water communications; location of counties and places; distances from prominent points; telegraph offices; express routes; banking facilities. Newspapers arranged by counties in States, with State and county headings, giving location—physical features, soil, agricultural products and manufactures. Population of counties and county-seats. Political votes by counties. Religious, agricultural and class publications. Press and editorial associations. Tabulated statements, population tables, etc.

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$6,500—Entire Block (6 acres), near Stanford University. One of the finest blocks on the tract, will subdivide to great advantage.

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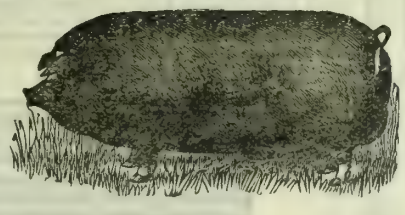

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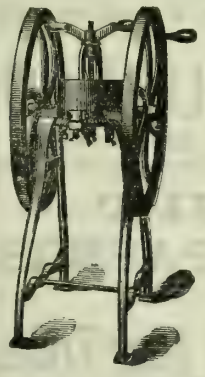

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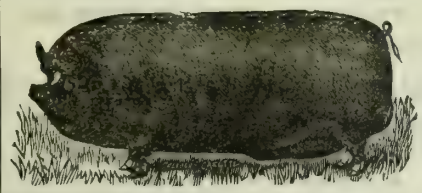

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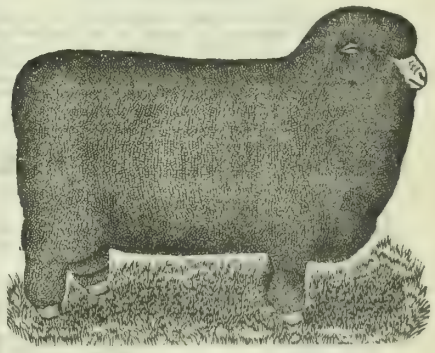

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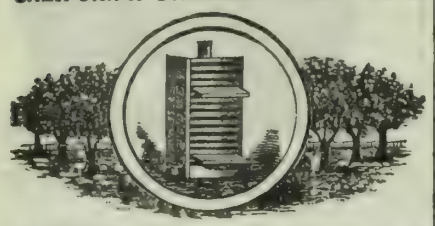

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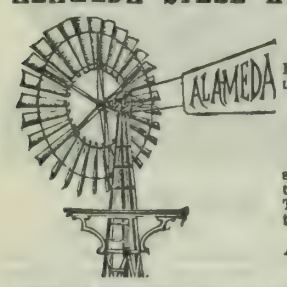

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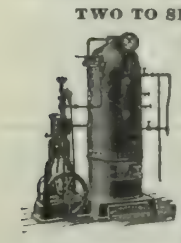

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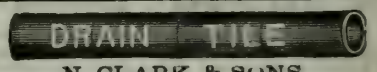

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S. F. Market Report

Market Review.

San Francisco, Oct. 12, 1892.

The local money market continues to work toward ore general ease. So far as the writer is able to arn there is now over 50 per cent more of available nds in this city than there was at the like date in 91. The increase in the reserve has been brought out by an undefined fear of what the future might ave in store, and therefore it was the part of wis- m and prudential banking to be prepared for the orst. Now that a feeling of confidence is setting in ere appears to be a growing disposition to place ore funds, and it is this growing disposition which weakening the rates of exchange. Eas'ern advices ort a more active money market but with no in- ease in the rates of interest. The general ease at e East in the rates of interest and a fairly active oney market in a presidential campaign cause sur- se, but this election, so far, has been very quiet d has not interrupted business in any branch of de.

he wheat markets of the world met with a steady wth up to yesterday (Tuesday), when the strong ar contingents, the world over, entered the mark t d hammered down futures at home and abroad. ey succeeded in forcing prices down one or two nts. The Government crop report was accepted being bearish which gave the excuse to shade off ces. So far from being bearish, the report, as we ire it out, is decidedly bullish, for instead of a eat crop of over 500,000,000 bushels, as claimed by bears, it is nearer 485,000,000 bushels; which ws a shortage of 130,000,000 bushels when com- ed with the outturn in 1891. And then, aside n a shortage in wheat there is the certainty of a e falling off (about 450,000,000 bushels) in the corn p. But this is not all, for the potato crop is al- t a failure, and the potato crop cuts a more im- ant figure than is generally accepted, owing to tuber being used for food by both man and beast. h a large shortage in corn and also in potatoes, consumption of wheat will necessarily be larger capita than for years. Increased consumption ns a lessened percentage in the surplus for avail- for export. Eastern mail advices report that hers are offering more sparingly, which has had effect of strengthening the markets.

he local market for wheat held to strong prices ughout the week. The advance has not been so nounced as it should have been, owing to ships ing more money. I is said by some that farmers quite freely at the advance, while this may be et the large shipments and free-loading of ves- l k very much as if considerable wheat-borrow- had been done which, if correct, will cause the owers to combine with short-sellers to get prices. re is a more general disposition at the close to bid tly lower for wheat, which has caused a less dis- ion on the part of farmers to offer on the market. re informed by several commission merchants farmers have not and are not now selling freely, that buyers find considerable difficulty in meet- heir requirements. Barley has met with a con- ed good demand for feed, malting and shipping. rains in the past week, while not of sufficient tion to cause grass to grow, took the substance f stubble and dry feed. This, it is thought, will e more feeding of barley and also of hay. It is that for straight parcels of choice, bright grades hipping, an advance has been paid over quota- . Oats have come in quite freely, but the mar- eld to steady prices with, at times, an advance for desirable parcels. Oregon and Washington us liberal supplies the past week. Corn has been or less inactive and in buyers' favor, and this, n the face of a light crop in this State and the e not up to the average. It is the general im- ion that Mexico and the Central American s will require very little corn the coming season g to favorable weather for the growing crop. was in fair demand the past week, and, under g holding, an advance was established.

ound-feed of all kinds was in good demand ughout the week. By those who should know, aid that the feeding so far in this season has fully 25 per cent larger than in the like time in r 1891 or 1890, and in consequence the supply of tuff has been kept down. There is a steadily ing demand for rolled barley for feeding. Hay net with a good demand. It is quite generally eded that the rains in the past week have made cessary for stockmen and farmers in general to more hay owing to the substance in dry pastures g more or less destroyed.

dairy produce, butter has been irregular, with a ing in price of choice to gilt-edged creamery dairy. The decline was due to free receipts from orthern coast, and also to consumers switching pickle. When the pickle season first opens the g is rather indifferent, but as the taste becomes vated, the demand increases and at the expense sh. As yet the weather is not in favor of solid r, but with colder weather it will attract buyers. eceipts of Eastern are quite heavy; much of it ing into cellars or cold storage. Cheese has d off under freer offerings and only a moderate nd. Receipts from the East continue free. have been cut, under stronger selling. The has been steadily turning to choice Eastern letting choice Californian alone, and to place tter, concessions were in order. Cooler weather avored shippers from Utah and Nebraska.

den-truck has been quite steady, only one or kinds of vegetables having changed in price. s have met with a fair shipping inquiry, but eceipts kept the market from appreciation. Po- s have held fairly firm, with a good demand for the more choice for shipping. The crop of choice, good-keeping potatoes was light in this State, owing to the larger proportion gathered being wormy and more or less diseased. The government report of a large shortage in the crop, particularly in the central States, creates the belief that this coast will be called on for heavy supplies later on in the season.

The fresh-fruit season is going out, and consequently prices are irregular and more or less nominal. The only varieties in liberal supply are poor pears, apples and grapes. Rains the past week did considerable injury to grapes in several sections.

Dried fruit has been inactive with buyers bearing the market. The market acts very much as if the first trade demand had been met, which will probably be followed by a free and enlarged demand toward the close of the present month. Holders, so far as we know, have confidence in the future, and are therefore slow in making concessions to induce buying. Choice fruit of all varieties is now in heavy supply, and consequently is sought for. Large-sized, choice prunes are wanted at the East, owing to higher prices being named abroad. The abatement in cholera in Europe is undoubtedly causing more buying by European countries.

Raisins are late, yet free shipments are going forward. From all advices obtainable up to this writing the pack will be considerably less than had been estimated a month ago. Eastern advices are more favorable, but the demand is confined to requirements.

Both walnuts and almonds, but more particularly the latter, are meeting with a good demand and at full prices. The markets at the East for almonds show considerable strength, with an advance established in sympathy with higher prices abroad due to a poor crop.

Hops have been coming in more freely, with buyers bidding an advance for the more choice grades. New York mail advices report that two of the largest brewers in the central States had entered that market and paid 25 cents, and even slightly higher, for choice grades of this year's. The export demand at last advices was light, but a gradual increasing call is expected to set in as soon as the cholera scare subsides In this city, as high as 21 cents was paid the past week for gilt-edged hops.

Wool continues disappointing. With an advance in England and eastern manufacturers consuming increased quantities of wool, yet the market does not appreciate. In our market the stock is, as a rule, undesirable, and therefore buyers are only induced to operate freely by getting concessions. Scourers are about the only buyers in the market.

Markets by Telegraph.

Foreign Grain Review.

London, Oct. 10.—The Mark Lane *Express* says: The average price of new wheat is 28s 3d, but brings 30s 4d in London, where a higher quality and better weight is offered. Barley is strong, oats firm and corn weak. To-day good, English wheat readily brought 30s to 34s. Indian was is dearer. Other foreign wheats were 6d higher. Flour was firmer and barley and corn were dearer. Oats were 6d dearer.

California Rais'ns Steady, Foreign Lower.

New York, Oct. 9.—California raisins are dull. A few have appeared, but not enough to make a sensation. Ninety thousand boxes of Valencias have already been distributed to the early trade. Two hundred thousand boxes are computed to be on the way. These are now down to 5¾c for layers and 5c off the stalk.

New York, Oct. 10.—Early shipments of California raisins are practically all marketed, and it is a matter of speculation whether the low prices named on the last shipment of Valencias will affect the market for Pacific coast goods prior to the holidays. For the time being, former prices are firmly adhered to for October and November shipments from the Pacific coast. The first arrivals of new California raisins realized $1.75 ⅌ box here for three-crown and $1 90 for four-crown quality.

Dried Fruit Firm.

New York, Oct. 9.—Canned fruits are quiet. There is no inquiry to increase attention. Unpeeled peaches are quoted at 13½@15c in a small way for the styles offering. Prunes had some development of business, about eight carloads being sold for the week, quoted at 9¼@9⅜c for four sizes, 10c for fifties, 9½c for sixties, all free on board. Apricots—First wants are fairly supplied, but good fine are held at 15@17½c with confidence.

Lima Beans Weak and Lower.

New York, Oct. 9.—Accumulated supplies depress the market and many are going in store. The extreme price at the close is $2.05, and there are sellers at $2 spot.

Hops Active and Higher.

New York, Oct. 9.—Early in the week a western call upon New York owners opened considerable business at 25c. Spot new advanced to 23½@24c for State, and 21@24c for Pacific; other growths are no higher than last reports.

Wheat Statistics.

New York, Oct. 9.—Exports of wheat from United States seaports, both coasts, this week (flour included as wheat) equal 4,017,059 bushels, compared with 3,958,000 bushels in the week one year ago. Last week the total export was 4,045 000 bushels. Stocks of available wheat in Europe and afloat therefore on October 1st, as cabled to Bradstreet's, did not vary materially from the like aggregate one year or three months ago. In the United States and Canada, both coasts, like stocks are 32,000,000 bushels larger than on July 1st, last.

Wool Higher in London.

London, Oct. 8.—At the London wool sales competition has been keen and prices have been firm, thus tending to strengthen quotations on this side. Only 40,000 bales have thus far been secured for the United States.

Wool Steady—Woolen Goods Active.

New York, Oct. 9.—Wool—There is no material change in seaboard wool affairs. Positive activity is not expected until after the Presidential election. Large manufacturers are fairly supplied through past purchases, still there will be demand enough from the busy small mills to prevent stagnation. It is remarkable that for fully three years domestic wool prices have not even had a spasmodic advance; a general steady decline has settled the mark t price to the present low scales. With the woolen goods market active and all the mills running to their full capacity it would seem that it was time for some improvement to occur in raw material. Sales at Boston—3,354,000 pounds of domestic; 533,000 pounds of foreign, mainly Australian. Philadelphia reports a demand for upper classes of wool, with unwashed quiet.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	Oct.	Nov.	Dec.	Jan.	Feb.
Thursday	6s00¼d	6s01½d	6s03 d	6s03½d	6s04½d
Friday	6s01 d	6s02½d	6s03¾d	6s04½d	6s05½d
Saturday	6s00½d	6s03 d	6s04½d	6s05 d	6s05¾d
Monday	6s00½d	6s02½d	6s03½d	6s04¼d	6s04¾d
Tuesday	6s01½d	6s02¼d	6s03½d	6s04¼d	6s04¾d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market for P. S.
Thursday	32s9d	33s3d	32s9d	Firm.
Friday	33s0d	33s6d	33s3d	Improving.
Saturday	33s3d	33s9d	33s3d	Strong.
Monday	33s6d	34s d	33s6d	Firm but less active.
Tuesday	33s6d	33s9d	33s6d	Less disposition to buy

To-day's cablegram is as follows:

Liverpool, Oct. 12.—Wheat—Red very dull and white firmly held California spot lots, 6s 7½d; off coast, 33s 3d; just shipped, 33s 6d; nearly due, 33s 3d; cargoes off coast, quiet; on passage, Ameri an advices cause depression; Mark Lane wheat firm but not active; weather in England, fine.

San Francisco.

WHEAT.

	Seller '92.	Buyer Oct.	Buyer Dec.	Buyer Jan.	May
Thursday, high st	....	....	137	137⅝	141½
" lowest	....	....	136⅝	136⅞	141
Friday, highest	134½	....	139⅜	140	143½
" lowest	134½	....	137⅞	138¾	142
Saturday, highest	....	....	138½	....	142½
" lowest	....	....	137⅞	....	141½
Monday, highest	134	....	137¾	....	141⅝
" lowest	133⅝	....	137¼	....	141¼
Tuesday, highest	133	....	136¾	....	141
" lowest	133	....	135⅝	....	140½

The following are to-day's recorded sales on Call:

Morning Informal.—Wheat, Buyer December, 100 tons, $1.36½; 500, $1.36⅜; 1100 $1.36⅝; 280, $1.36¾. May, 100 tons, $1.41⅜. Seller 1892, 200 tons, $1.33½ per ctl. Afternoon.—Buyer December, 800 tons, $1.36¾; May, 100, $1.4 ⅜ per ctl.

BARLEY.

	Seller '92.	Buyer Oct.	Buyer Dec.	May
Thursday, highest	....	....	91	....
" lowest	....	....	90⅝	....
Friday, highest	86¾	....	91⅜	....
" lowest	86¾	....	91⅜	....
Saturday, highest	86¾	....	91¾	....
" lowest	86¾	....	91¾	....
Monday, highest	87	....	92⅛	97¾
" lowest	87	....	91⅞	95¾
Tuesday, highest	....	....	....	94
" lowest	....	....	....	94

The following are to-day's recorded sales on Call:

Regular Session.—Barley, Buyer December, 200 tons, 92⅛c: December, 200 tons 91½c; January, 100 tons, 92⅛c; Seller 1892, 100 tons, 87½c. per ctl. Afternoon—December, 100 tons, 91⅜c; 100, 91½c; 200, 91⅝c; Buyer December, 100 tons, 92½c; 100, 91⅞c; May, 100, 95c; 100, 95¾c; January, 100 tons, 92c; 100, 91⅞c per ctl.

Eastern Markets.

The following shows the closing prices of wheat for the past week at

New York.

Day.	Oct	Nov.	Dec.	May.
Thursday	131⅞	134	136½	147¼
Friday	133⅜	135¼	1 8	148⅜
Saturday	133½	137	137¾	148⅜
Monday	133¾	135	137½	148½
Tuesday	131¼	135	135¼	145⅝

The following is to-day's telegram:

New York, Oct. 12.—Holiday. No reports.

Chicago.

Day.	Oct.	Dec.	May
Thursday	123½	128	137
Friday	123¾	129	138½
Saturday	123½	128⅝	13 ¼
Monday	124	128⅞	138
Tuesday	121	125⅝	134½

The following is to-day's telegram:

Chicago, Oct. 12.—Wheat, 75¾c for December and 81½c o May.

General Remarks and Statistics.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending Oct. 11, '92, were as follows:

Flour, qr. sks	102,278	Bran, sks	16,043
Wheat, ctls	385,498	Buckwheat "	....
Barley, "	72,788	Middlings "	4,245
Rye, "	308	Chicory, bbls	157
Oats, "	16,806	Hops, "	884
Corn, "	3,494	Wool, "	3,144
*Butter, "	1,507	Hay, ton	2,224
do bxs	851	Straw, "	120
do bbls	286	Wine, gals	191,670
do kegs	169	Brandy, "	4,080
do tubs	18	Raisins, bxs	....
do ½ bxs	135	Honey, cs	278
†Cheese, ctls	649	Peanuts, sks	8
do bxs	20	Walnuts "	7
Eggs, doz	14,430	Almonds "	351
do " Eastern	24,150	Mustard "	67
Beans, sks	....	Flax "	....
Potatoes, sks	20,402	Popcorn "	....
Onions, "	5,164	Broom corn, bbls	369

*Overl'd, 877 ctls. † Overland, 267 ctls.

Exports by Sea from San Francisco from July 1 to Oct. 5.

	1892-93	1891-92
Wheat, ctls	2,904,877	4,434,485
Flour, bbls	322,922	312,013
Barley, ctls	606,898	296,608

Tonnage Movement.

From reliable advices up to Oct. 12, the following summary tonnage movement is compiled:

	On the way 1892.	On the way 1891.	In port 1892.	In port 1891.
San Francisco	279,149	453,549	*166,023	75,277
San Diego	11,378	26,143	9,677	.....
San Pedro	7 344	5,470	....	} 8,320
Oregon	52,159	75,695	44,160	
Puget Sound	27,089	28,323	.....	
Totals	377,119	589,180	219,860	83,597

*Engaged for wheat, 1892, 54,348; 1891, 65,934.

Cereals.

A leading London produce exchange says that it is curious to notice that the area in France under wheat, in spite of the high protective duty, follows of recent years much the same course as it does in the U. K. Indeed going back for 20 years, the average area under this cereal was larger then than it is now. The consumption, on the other hand, shows a constant tendency to increase, the average per inhabitant during the past 50 years being as follows, in periods of 10 years:

	Per capita. Bushels.
1882-91	7.7
1872-81	6.87
1862-71	6.02
1852-61	5.58
1842-51	5 11
1832-41	4 5

The London *Corn Trade News* says: In spite of the enormous export of wheat from the Black sea, the aggregate shipment of breadstuffs to Europe is only a trifle above the average weekly requirement, and this notwithstanding the very heavy clearance of wheat and flour from American ports to the U. K. The purchases of continental buyers are simply surprising, bearing in mind all that has been written as to their present and prospective abstention from the export markets. Holland has taken 1'8,000 qrs. this past week; Belgium and France between them 131,000 qrs, and Italy 149,000 qrs. The fact seems to be that wheat merchants are waking to the fact that with India and Russia both likely to be partially out of the market soon, and America with a crop of 15,0 0 000 qrs. less than last season, wheat at 30s. per qr. ought not to go begging.

As having a direct bearing on the food question, the following estimate of the world's production of rye by Beerbohm is published, the quantities being expressed in quarters of eight bushels each:

	1892.	1891.	1887.
European Russia	75,000 000	59 800,000	76,050,000
Poland	6 000 000	4,500,000	5,500,000
Germany	31,000 000	28,900,000	27,000,000
Austria	9,500,000	8,475,000	9 800,000
Hungary	6 000,000	5 000,000	6,900 000
France	8 500,000	7 875,000	9,200,000
Spain	2,000 000	2,000 000	2,180,000
Belgium	2,500 000	1,000,000	2,100,000
Holland	1,400,000	1,000,000	1,500 000
Roumania and Bulgaria	2,000 000	1,725,000	2,000,000
Denmark	2,750,000	2,300 000	2,040,000
Sweden	2,500,000	2,750,000	2,625,000
America	3,400 000	3,750,000	3,500,000
Canada (Ontario)	250,000	250,000	195,000
Total quarters	152,300 000	129,325,000	150,690,000
Total bushels	1,216,000,000	1,034 600,000	1,204,720,000

Wheat was firmer to-day with an active demand for milling grades. It looks as if the mill trust did not control milling wheat as the members evidently expected, for now milling grades are wanted and none can be had except by paying quite an advance on bids A 250-ton parcel of fair shipping was placed to-day at $1 32½. Farmers are slow sellers.

Barley was quiet but strong to-day. Sellers forced in the market had to sell at quotations, but buyers forced to purchase had to pay an advance on quotations. The general tone to-day appeared to be upward.

Oats were steady but firm with a freer call reported.

Rye was higher and strong, but corn was unchanged.

Vegetables.

Garden-truck was essentially unchanged to-day. Tomatoes sold slowly, but cucumbers were firmer. Pickling cucumbers were readily placed.

Onions and potatoes were easy for poor keepers, but firm for choice good keepers. The market is overstocked with wormy, diseased and otherwise poor potatoes.

Fruit.

The market was slow for all kinds of fresh fruit. Poor apples, poor pears, and, as for that, all poor fruit, was hard to place. The low and indifferent market for poor fruit causes choice to sell lower than it otherwise would. Wine grapes sold at $10 to $14 for Mission and $12 to $16 for Zinfandel.

Dried apricots are scarce and hard to get even at an advance. Dried peaches were offering freely to-day. About every commission merchant in the city appears to have samples of parcels for sale. These offerings frightened buyers. The market for other dried fruit was dull, and to sell concessions had to be made.

The remarks on raisins under Market Review cover to-day's market for that fruit.

A member of a leading commission house says: Should present favorable drying weather continue it will add considerably to the present stock of dried peaches; while on the other hand any considerable rainfall would stop drying and have a tendency to strengthen the market. While the offerings are not excessive it is the almost, (I think temporarily) entire absence of an Eastern demand which has caused the present easier tone of the market for the stocks here do not justify any decline—should an inquiry from the East revive, the market would quickly right itself. I am of the opinion that the Eastern buyers imagine that we have an inexhaustable supply of dried fruit and do not realize that we have only a limited quantity. They are holding off waiting for the market to settle to lower prices, in which, I think they will find themselves mistaken. This is the season of the year when receipts are the heaviest, with odds and ends coming to hand from all sections of the State and forced for sale. Receipts will soon begin to drop off, which coupled with an Eastern demand will strengthen the market and in the spring the demand is likely to be larger than the supply, particularly with the largely increased consumption during the World's Fair, and the light pack of dried fruit in the central and eastern states.

Feedstuff.

Both bran and middlings appeared to be stronger to-day with available supplies light. Roll barley was firm, but feedmeal was easy.

It was quite generally stated to-day that dry pasture, where there was any, was not injured by the rains, but it was also said that there is very little dry pasture to be had. There was a fairly free market for the more choice grades of hay at current quotations.

Dairy Produce.

The receipts of butter, cheese and eggs at San Francisc in September were as follows:

Source.	Butter, Lbs.	Cheese, Lbs.	Eggs, Dozen
California	1,3 ,800	429,900	87, 60
Oregon	66,600	14,000	270
Eastern	177,900	343,000	371,550
Totals	1,560,300	786,900	459,280
January	502,200	476,9 0	420,345
February	622,550	313,500	200,245
March	1,188,7 0	574 200	358,756
April	1,793 050	862,900	590,168
May	1,713,100	715,900	536,170
June	1,811,200	634,100	603,735
July	1,157,700	789,100	374,211
August	1,376,300	694,800	447,325
Nine months	11,905,100	5,788,300	4,010,655

During the first nine months of 1891 the receipts were 10 976,700 lbs butter and 5,226,000 lbs cheese, 3,814,318 dozen.

Pickled butter was offering quite freely to-day by several dairies, which caused an easier tone. Fresh butter was weak, with the tendency to lower figures. In a small way, 37½ cents was paid for gilt-edged creamery, but for round parcels it was difficult to get much over 35 cents bid. Buyers are holding off.

Cheese, like butter, was top-heavy to-day, and as is always the case when a market is sloppy, buyers bid lower. Stocks are large.

Eggs were slow to-day, with outside quotations only reached in a small way.

Live Stock.

Bullocks and mutton sheep have held fairly steady with, at times, an advance obtainable for bullocks that would cut up with little wastage. Hogs, under free offerings and an offish demand, sold lower.

Miscellaneous.

Poultry held to fairly firm prices throughout the week, but, to-day, hens, roosters and young chickens were dull and lower. Heavy arrivals of Eastern broke the market. Turkeys were higher to-day, under a more active demand.

Beans were fairly active, with the trade stocking up. There was a fair shipping demand, also. It is

said that some future sales (short sales) have been made at less prices than are now quoted.

The market review covers to-day's market for both hops and wool.

Honey has come in quite freely. Comb honey is barely steady, but extracted is strong.

A reported strong cutting in prices by C. E. Whitney & Co. and Armour & Co. has kept this market for hog product below the Eastern parity. With an amicable settlement of difficulties, prices would advance.

Alfalfa is strong at an advance. A short crop in Utah has caused our market to advance. Other seeds are firm. The mustard-seed crop is reported to be well concentrated.

General Produce

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations. OCTOBER 12, 1892.

BEANS AND PEAS.		NUTS, JOBBING.	
Bayo, ctl	2 00 @ 2 15	Walnuts, Cal lb.	[illegible]
Butter	2 50 @ 2 80	Do choice	8½@
Pea	2 35 @ 2 50	Do paper shell	9@ —
Red	2 20 @ 2 40	Almonds, soft shell	12@
Pink	2 15 @ 2 30	Paper shell	14@
Small White	2 35 @ 2 55	Hard shell	7½@ 8½
Large White	2 05 @ 2 20	Brazil	9@ 10
Lady Wash	2 10 @ 2 20	Pecans, small	11@ 13
Lima	3 00 @ 3 15	Do large	14½@ 16
Eld Peas, blk eye	1 45 @ 1 55	Peanuts	3½@ 4½
Do green	1 75 @ 1 90	Filberts	11@ —
Do Niles	1 45 @ —	Hickory	7@ 8
Split	4 50 @ 5 50	Chestnuts	11½@ 16
BUTTER.		ONIONS	
Cal., poor to fair, lb	17 @ —	Silverskin	40@ 50
Do g'd to choice	27½@ 34	POTATOES.	
Do Giltedged	— @ 35	River Reds	55@ 65
Do Creamery Rolls	30 @ 35	Early Rose, ctl.	55@ 65
Do do Giltedge	— @ 32½	Peerless	55@ 70
Eastern, lad'e	17@ 20	Garnet Chilies	60@ 75
Cal. Pickled	22½@ 26	Burbank Seed's	50@ 60
Cal. Keg	21@ 25	Do do Salinas	80@1 25
Eastern Creamery	25@ 30	Sweet	1 00@1 40
CHEESE.		Extra choice sell for more money	
Cal. choice cream	9½@ -	POULTRY.	
Do fair to good	8@	Hens, doz	6 00 @ 7 00
Do Giltedged	— @ 11	Roosters, old	6 0 @ 6 50
Do Skim	5@ 6½	Do young	5 00 @ 6 00
Young America	— @ 12	Broilers, small	2 75 @ 3 25
EGGS.		Do large	3 25 @ 4 00
Cal. "as is," doz	18@ 20	Fryers	4 00 @ 5 00
Do shaky	14@ 16	Ducks	4 50 @ —
Do candled	21@ 25	Do large	5 50 @ —
Do choice	27@ 30	Do extra large	6 50 @ —
Do fresh laid	— @ 35	Geese, pair	1 50 @ 2 00
Do do s'led wht'e	— @ 40	Turkeys, gobb'r.	19@ 21
Eastern "as is"	18@ —	Turkeys, hens	17@ 19
Do candled	22@ 35	All kinds of poultry, if poor or small, sell at less than quoted; if large and in good condition, they sell for more than quoted.	
Do selected	— @ 27½		

Outs de prices for selected large eggs and inside prices for mixed sizes—small eggs are hard to sell.

FEED.		GAME	
Bran ton	15 00@ 17 00	Quail, per doz	75@1 50
Feedmeal	27 0@ 30 00	Ducks	— @ —
Gr'd Barley	19 00@ 20 50	Do Mall'd ⅌ doz	4 00 @ 5 00
Middlings	22 00@ 24 50	Do Sprig	2 25 @ 3 00
Oil Cake Meal	— @ 25 00	Do Teal	1 75 @ 2 50
Manhatan Food per ctl cabinet	— @ 8 00	Do Widgeon	1 50 @ 1 75
		Do small	1 00 @ 1 50
HAY.		Geese	— @ —
Wheat, per ton	7 00@ —	Do gray ⅌ doz	2 25 @ 3 00
Do choice	— @ 13 00	Snipe	- @ —
Wheat and oats	7 00@ 11 50	Do English, doz	2 25 @ 3 00
Wild Oats	6 00@ 9 00	Do Jack, per doz	75@ —
Cultivated do	5 00@ 8 00	Hare, per doz	1 25 @ 1 50
Barley	5 00@ 8 00	Rabbits, large	1 25 @ 1 50
Alfalfa	7 00@ 9 00	Do small	87½@1 25
Clover	8 00@ 10 00	PROVISIONS.	
Straw, bale	30@ 50	Cal. bacon, heavy, per lb	11@ 11½
GRAIN, ETC.		Medium	12@ 13
Barley, feed, ctl	71½@ — —	Light	13½@ 14
Do good	82½@ — —	Lard	8@ 11
Do choice	85@ — —	Cal sm'k'd beef	11@ —
Do brewing	92½@ — —	Hams, Cal salt'd	12@ 13½
Do do choice	96½@ — —	Do Eastern	13@ 14
Do do Giltedge	1 00@ — —	SEEDS.	
Do Chevalier	85@ 1 10	Alfalfa	11@ 12
Do do Giltedge	1 15@ 1 25	Clover, Red	15@ —
Buckwheat	2 00@ — —	White	25@ —
Corn, white	1 32½@ — —	Flaxseed	2 25@ —
Ye low, large	1 20@ — —	Hemp	3½@ 4
Do small	1 25@ — —	Mustard, yellow	4@ —
Oats, milling	1 32½@ — —	Do brown	3½@ —
Feed, choice	1 30@ — —	WOOL.	
Do good	1 25@ — —	SPRING, 1892.	
Do fair	1 17½@ — —	Humboldt and Mendocino	17@ 21
Do common	1 05@ — —	Sac'to vall'y	16@ —
Surprise	1 47½@ — —	S Joaquin valley	11@ 16
Black Cal	1 05@ 1 27½	Calaveras and Foothill	16@ 21
Do Oregon	— @ —	Oregon Eastern	12½@ 19
Gray	1 20@ 1 22½	Do valley	18@ 23
Rye	1 15@ 1 20	Southern Coast, defective	10@ 12
*Wheat, milling Gi t dged	1 36½@ — —	Nevada (State)	15@ 19
Do choice	1 33½@ — —	FALL, 1892.	
Do fair to good	1 32½@ — —	S Joaquin, plain	6@ 8½
Shipping, choice	1 33½@ — —	Do mountain	9@ 11
Do good	1 3½@ — -	Do lamb	8@ 9
Do fair	1 28½@ — —	Northern lamb	10@ 14
Common	1 25@ — —	HONEY—1892 CROP.	
Sonora	1 22½@ 1 25	White comb, 2-lb frame	9½@ 12½
HOPS		Do do 1-lb frame	11½@ 14½
1892, fair	17@ —	White extracted	7½@ —
Good	13@ —	Amber do	7@ —
Choice	20@ —	Dark do	6½@ —
FLOUR		Beeswax, lb	23@ —
Extra, city mills	4 00@ —		
Do country m'ls	4 00@ —		
Superfine	2 60@ 3 00		

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations. OCTOBER 12, 1892.

Limes, Mex	7 00 @ 8 00	Quinces pr bx	55@ 75
Do Cal	2 00 @ 4 00	Extra choice fruit for special purposes sells at an advance on outside quotations.	
Lemons, box	5 00 @ 7 00		
Do Sicily choice	8 — @ —	Beets, sk	- @ 75
Strawberries, per chest—Sharpless	5 00 @ 8 00	Carrots, sk	40@ —
Peaches, box	50@ 1 00	Okra, dry, lb	- @ —
Figs, blk box	25@ 75	Do green box	40@ 75
Do White	25@ 50	Parsnips, ctl	— @ 1 25
Apples	20@ 50	Peppers, drv, lb	10@ —
Do Choice	75@ —	Do grn Chill, bx	25@ 35
Do Extra choice	1 00@ —	Do do Bells	20@ 50
Canteloupes, pr crate	50@ 1 00	Turnips, ctl	75@ —
Melons, pr 100	5 00 @10 00	Cabbage, 100 lbs	65@ 75
Nutmegs, ⅌ box	35@ 55	Garlic, lb	1@ 2
Grapes, pr bx—		Tomatoes	20@ 35
Do White	25@ 40	String Beans, lb	1@ 2½
Do Black	20@ 45	do do Wax, lb	2@ 3
Do Muscats	25@ 60	Lima Beans	3½@ 4½
Do Tokays	40@ 65	Cucumbers, box	40@ 50
Do Royal Isabel	75@1 00	Do pickle ⅌ lb	1@ 1½
Do Cornichon	50@ 75	Mushrooms	- @ —
Wine Grapes, Zinf'nd'l, pr tn	12 00 @16 00	Egg Plant, box	25@ 50
Mission	10 00 @14 00	Green Corn, box	75@1 50
Pears	25@1 00	Marfat Squash, ⅌ ton	5 00 @10 00

Live Stock.

BEEF.		MUTTON.	
Stall fed	5½@—	Wethers	6½@—
Grass fed, extra	5½@—	Ewes	6@—
First quality	5@—	Do Spring	7@—
Second quality	4@—	HOGS.	
Third quality	3@—	Light, ⅌ lb, cents	4½@—
Bulls and thin Cows	2@—	Medium	4½@—
VEAL.		Heavy	4½@—
Range, heavy	4½@—	Soft	4@—
Do light	5½@—	Feeders	3½@—
Dairy	6½@—	Stock Hogs	3½@—

Dried Fruits.

The quotations given below are for average prices received by commission merchants for consignments by growers. Something very fancy fetches an advance on the highest quotations, while poor sells slightly below the lowest quotations. Prices, unless otherwise specified are for fruit in sacks; add for 50-lb. boxes ⅛c per lb. and for 25-lb. boxes ¼ to ½c per lb.

APPLES 1892.			
Sun-dried, ¼'s, com'on	2½@ 3½	Do do choice	— @15
Do do prime	3½@ 4	Do do fancy	— @16
Do do choice	4@ 4½	Evap., peeled, in boxes choice	17½@—
Do sliced, common	3½@ 4	Do do fancy	20@—
Do do prime	4@ 4½	PEARS—1892.	
Do do choice	4½@ 5½	Sun-dried, quarters	— @ 3
Evap. bl., rl g, 50-lb. bx	8@ 9	Do sliced	4@ 5
Fancy, higher.		Evap., slic'd, in b'xes	7@ 8
APRICOTS—1892.		Do ring do	9@10
Sun-dri d, unbl. com.	4½@ 5½	Unp'led, q'rt'd, bl'ch'd	10@11
Do do prime	6½@ 8	PLUMS—1892.	
Do do choice	9@10	Pitted, sun-dr.ed	10@10½
Do bleached, prime	12½@—	Do evap. boxes, choice	@—
Do do choice	15½@—	Do do do fancy	@ -
Do do fancy	14½@	Unpitted	4@ 5
Evap choice, in boxes	15@—	PRUNES—1892.	
Do fancy do	15½@—	Cal. French, ungraded	7½@ 8
FIGS—1892.		Do graded, 60 to 100	8½@ 9
Sun-dried, black	3½@ 4	Do do 40 to 60	11@12
Do white	3@—	Fancy sell for more money.	
Do do washed	—@—	RAISINS—1892.	
Do do fancy	—@—	London Layers, cluster per box	1 90@2 00
Do do pressed	—@—	Do choicest do	1 60@1 70
Smyrna boxes	—@—	Do prime pr bx	1 40@1 45
Do sacks	—@—	Loose Muscatels, common, pr bx	— @ —
GRAPES—1892.		Do choice do	1 25@1 30
Sun-dried, stemless	3½@—	Do fancy do	— @ —
Do unstemmed	1½@ 2	Unstemmed Muscatels in sks pr lb.	4@ 5½
NECTARINES—1892.		Stemmed do do	— @ —
Red, sun-dried	8@ 9	Seedless do do	— @ -
Do Evap., in boxes	— @—	Sultanas, unbl. bxs	— @ —
White, sun-dried	9½@11	Do bl'ched in bxs.	- @ —
Do evaporated	— @—	Halves, quarters and eighths 25, 50 and 75 cents higher respectively than whole boxes.	
PEACHES—1892.			
Sun-dried, unpeeled	7@ 7½		
Do do pitme, bl ched	10@—		
Do do choice, do	11@—		
Do do fancy	12@—		
Sun-dr., pl'd, bl'ched	@—		
Do do prime	14@—		

Twine and Baling Rope.

BALE ROPE.		TWINE.	
Sisal, 3 yarns	9	Pure Manilla Hop, in balls, tarred	11½
Do, 2 yarns, light	9½	Do, Grapevine, in balls or coils	12
Duplex, 3 yarns	9	Do, Spring	16
Manilla, 3 yarns, heavy	10½	Duplex Hop in balls, tar'd.	9½
Pure Manilla, 3 & 4 yarns	12	Do, Grapevine, in balls or coils	10½
Do, 2 yarns, light	12½		

Wine.

Red and White Wine from bay counties, vintage of 1891, per gal., in cellar lots ..... 12@20

Auction Sales of California Fruits.

At New York.

Oct. 4.—Four carloads: Levi Cling Peaches, $1.25@1.55; George's Late Peaches, $1.20@1 35; Salway Peaches, $1.20@2; Plums, $1 20; Figs, $1.40; half-crates Muscat Grapes, $1.12@1.60; half-crates Tokay Grapes, $1.55@2.05; double-crates Tokay Grapes, $3.9 @4.12; half-crates Emperor Grapes, $1 6'@1 65; half-crates Morocco Grapes $1.65; Coe's Late Red Plums, $2 30; Japan Plums, $1.50; Winter Nelis Pears, $2.80@3.05; half-boxes Bartlett Pears, $2.70; De Comice Pears, $4.35@5; Giout Morceau Pears, $2.70@3.90; Winter Seckel Pears, $2 70.

Oct 4.—Three carloads: Beurre d'Anjou Pears, $6; Tokay Grapes, $3.80@5; half-crates, $1.40@2.20; Purple Damascus Grapes, half-crates, $1.75; Salway Peaches, $1.40@2 05: Heath Cling Peaches, $1 25@1.35; George's Late Cling Peaches, $1.20@1 35.

Oct. 5.—Two carloads: Half-crate Tokay Grapes, $1.25@2.10; double-crate Tokays, $2 37@3.62½; half-crate Muscat Grapes, $1.05@2: Malvoise Grapes, $1.50@1.80; Morocco Grapes, $1 85@2.10; assorted Grapes, $1.40@2.40; White Tokay Grapes, $1.60; Cornichon Grapes, $2; Peaches, 65c: Salway Peaches, $1.30@1 50; Cling Peaches, $1.05; Plums, $2.70; Bartlett Pears, $3.12; Seckel Pears, $1.90; Winter Nelis Pears. $3 20.

Oct. 7.—Two carloads: Tokay Grapes, $3.50@4 45; half-crates, $1 40@2 15; Purple Damascus Grapes, half crates, $1 05; Winter Nelis Pears, $3.

Oct. 7.—Four carloads: George's Late Peaches, $1.25@1.45; Levi Cling Peaches, 85c@$1.90; Salway Peaches, $1.43@$2 85; Bilyeau's Late Peaches, $2.10@2.60; Pears, $2.20@3 30; half-crate Tokay Grapes, $1.25@1.95; double-crate Tokay Grapes, $2.75@3 25; half-crate Muscat Grapes, $1.10@1 40; half-crate Emperor Grapes, $1 53: half crate Malaga Grapes, $1.40; Rose de Peru Grapes, 70c.

Oct. 10.—Two carloads: Tokay Grapes, $3@4.85; half-crates, $1.25@2 05; Winter Nelis Pears, $2.50; Clapp's Favorite Pears, $2.35; George's Late Cling Peaches, half-boxes, 60c.

Oct. 10.—Six carloads: Half-crate Tokay Grapes, $1.10@2.15; double-crate Tokays, $3 05@3.20; half-crate Muscat Grapes, $1.20@2.35; Rose de Peru Grapes, 75c; half-crate Morocco Grapes, $1 20@2 65; Black Prince Grapes, 90c; assorted Grapes, $1 65@2.55; Emperor Grapes, $1 42; Purple Damascus Grapes, $1.20; Peaches 65c@$1.45; Levi Cling Peaches, $1.20@1.45; George's Late Peaches, $1.05; Pears, $2@3.

Oct. 11.—Six carloads: Double-crate Tokay Grapes, $2.55@3.20; half-crate Tokay Grapes, 75c@$1.95; half-crate Muscat Grapes, 65c@$1.25; Malaga Grapes, 92c; Malvoise Grapes, 65c; Emperor Grapes, 90c@1.35; Black Morocco Grapes, $1.40; Cornichon Grapes, $2.20; Black Prince Grapes, 70c; Plums, 45@70c; Coe's Late Red Plums, $2.18: Salway Peaches, $1.45@2 65; Cling Peaches, $1.25@1.40; Levi Cling Peaches, 80c@$1.30; Billyeaus Late Peaches, $1 35@2 35; Winter Nelis Pears, $2.10; Pears, $2.12@3.12; Quinces, $3; Pomegranates, $3.10.

Oct. 11.—Two carloads: Tokay Grapes, $2.65@4; half-crates, $1.10@2; Cornichon Grapes, half-crates, $2.10: Coe's Late Red Plums, $2; Winter Nelis Pears, $3 35.

At Chicago.

Oct. 4.—Four carloads: Peaches, 90c@$1 65; Pears, $1.80@1.90; Tokay Grapes, single crates, $1 05@1 55; double crates Tokay Grapes, $2.85@3.80; Muscat Grapes, single crates, 95c@$1.60; Morocco Grapes, $1.70; Cornichon Grapes, $1.50; Emperor Grapes, $1.25; Malaga Grapes, $1@1.25.

Oct. 4.—The Earl Fruit Company sold California fruit at auction to-day at the following prices: Bartlett Pears, $3.75; Keiffer Pears, $3.15; Tokay Grapes, $2 75@3.25; half-crates, $1.35@3; Muscat Grapes, $2.90; half-crates, $1.40; Cornichon Grapes, half-crates, $1.25; Salway Peaches, $1.25@1 30.

Oct 5.—One carload of Quinces at auction to-day at $1.35 ⅌ box.

Oct. 5.—Two carloads: Salway Peaches, $1.35@1.40; Hawley Cling Peaches, $1.25@1.30; Strawberry Cling Peaches, half-boxes, 65c; George's Late Cling Peaches, half boxes, 65c.

Oct. 7.—Four carloads: Bartlett Pears, $4.15; Duchess Pears, $3 80; White Doyenne Pears, $3 30; Beurre Clairgeau Pears, $3; Onondaga Pears, $2 75; Winter Seckel Pears, $2 65; Kelsey Japan Plums, $2 95; Malaga Grapes, half-crates, $1 60; Tokay Grapes, half-crates, $1 20@1 60; Black Morocco Grapes, half-crates, $1.15; White Cornichon Grapes, half-crates, $1 55; Cornichon Grapes, half-crates, $1 20; Purple Damascus Grapes, half-crates, $1.25; Muscat Grapes, half-crates, $1.10@1.15; Bilyeau's Late Peaches, $1.45; Salway Peaches, $1.30@1.40.

Oct. 7.—Four carloads: Bartlett Pears, boxes, $3 40@4; in crates, $1.80; Verdelle Grapes, double crates, $2.25; Muscat Grapes, double crates, $2.60@2.70; Muscat Grapes, single crates, $1.15@1 50; some in poor condition, 85c@$1.15; Tokay Grapes, double crates, $2 50@3 60; Tokay Grapes, single crates, $1.20@1 50; Cornichon Grapes, double crates, $2 40; Malaga Grapes, single crates, 60c@$1.05; Black Morocco Grapes, single crates, $1.35: Pomegranates, $2; Peaches, $1.25@1.35; Quinces, $1.10@1.20; Pears, $2.05@2 15.

Oct. 8.—Three carloads; Tokay Grapes, $2.90@3 50; half-crates, $1.30@1.45; Muscat Grapes, $2 85; half-crates, $1.25@1.40; Ferrara Grapes, half-crates $1.30; Verdelle Grapes, half-crates, $1.15@1.30; Emperor Grapes, half crates. $1 25; Salway Peaches, $1.65; White Freestone Peaches, $1.15; White Doyenne Pears, $3 25; Giout Morceau Pears, $3.25; Beurre Diel Pears, $2 80@2.85; Winter Nelis Pears, $2.25; Vicar Pears, $2 25; Beurre Clairgeau Pears, half-boxes, $1.60; Quinces, $1 35; Coe's Late Red Plums, $2.20.

Oct. 10.—Three carloads: Beurre Clairgeau Pears, $3 35; Giout Morceau Pears, $3 25; Beurre Gris Pears, $2.50; Winter Nelis Pears, $2 30; Vicar Pears, $2.15; Coe's Late Red Plums, $2@2.25; Silver Prunes, $2; Tokay Grapes, $2.45@2.95; Muscat Grapes, half-crates, $1.15@1 35; Black Morocco Grapes, half-crates, $1 35; Quinces, $1 35; Salway Peaches, $1.40; Hawley Cling Peaches, $1 40.

Oct. 10.—Four carloads: Pears, $2@2 50; half-boxes, $1.55; Bartlett Pears, $3.35@3.40; Peaches, 45c@$1.75; Muscat Grapes, single crates, $1.20@1 50; Tokay Grapes, half crates, $1.20@1.60; double crates, Tokay Grapes, $2.70@3.35; Cornichon Grapes, single crates, $1.30@1.55; Quinces, $1 20@1.25.

Oct. 11.—Three carloads: Malaga Grapes, 70c@$1.05; White Grapes, $1 80; single-crate Tokay Grapes, $1.25@1 55; double-crate Tokay Grapes, $2.30@3.45; single-crate Muscat Grapes, 75c@$1.50; double-crate Muscat Grapes, $2.15@2.55; Cornichon Grapes, $1.30; Emperor Grapes, $1.05; Peaches, $1.15@1 75; Quinces, $1.50; Plums, $1 80; Winter Nelis Pears, $2.50; Giout Morceau Pears $3.20.

Oct. 11.—Four carloads: Winter Seckel Pears, $3.50; Giout Morceau Pears, $3 90@3; Winter Nelis Pears, $2 20@2 75; Duchess Pears, 2.35; Vicar Pears, $2 25; Tokay Grapes, $2.50@3.40; half-crates, $1 25@1.60; Muscat Grapes, half-crates, $1.25@1 35; Emperor Grapes, half-crates, $1.30; Cornichon Grapes, half-crates, $1.15@1.20; Malaga Grapes, half-crates, $1.15; Quinces, $1.25; Salway Peaches, $1.75. Some Grapes in bad order sold for less

At Minneapolis.

Oct 4.—Two carloads: Pears, 60c@$2 45; Cling Peaches, 55c@$1; Freestone Peaches, $1.35; Muscat Grapes, $1; Tokay Grapes, $1@1.60; Quinces, $1.50; Plums, $1 50.

Oct. 5.—One carlord: Peaches, 85c@$1.35; Grapes, 60c@$1.30; Pears, $1.90@2.50

Oct. 7.—One carload: Peaches, 85c@$1; Pears, $1.20@2.

Oct. 8.—Three carloads: Peaches, 90@$1 45; Grapes, 65@85c; Pears, $2@2 50; Quinces, $1.55; double-crate Tokay Grapes, $2 10@3 10; half-crate Tokay Grapes, $1.

At Boston.

Oct. 4.—One carload: Salway Peaches brought $1.45 per box.

At Omaha.

Oct. 4.—Three carloads: Pears, $1@2 per box; Peaches, 50c@$1.15; Grapes, 50c@$1.25 per half-crate.

At New Orleans.

Oct. 4.—One carload: Tokay, half-crates, $1.35@1.40; Rose de Peru, half-crates, $1.25@1.40; Muscat Grapes, half-crates, $1.25.

Oct. 7.—Two carloads: Tokay Grapes, half-crates, 90c; Muscat Grapes, half-crates, 90c; Rose de Peru Grapes, half-crates, 85c.

Oct. 11.—One carload: Muscat, half-crates, $1 25@1.30; Tokay, half-crates, $1@1.10; Rose de Peru, half-crates, 95c.

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He is apt to appreciate the good things of this life all the more when he can have such palatable dishes as those which the Enterprise Meat-Chopper will assist him, or his good wife, in preparing. For chopping Sausage Meat, Mince Meat, Hamburg Steak for dyspeptics, Hog's-head Cheese, Suet, Hash, Tripe, Clams, Peppers, Scrap Meat for poultry, Corn for fritters, Stale Bread for bread crumbs, Horse Radish, Cocoanut, Lobsters, Vanilla Beans, Cabbage, it is not excelled, and the economical housewife will find it almost indispensable in preparing Chicken Salad and Chicken Croquettes, making Beef Tea for invalids, mashing Potatoes, pulverizing Crackers, etc. In a word, the Enterprise Meat-Chopper will be found invaluable in the kitchen in many processes of cooking. All hardware stores sell it and the price is only $3.00. Reader, buy one! and send to the Enterprise M'f'g. Co., Philadelphia, for one of their interesting Catalogues—they are furnished free.

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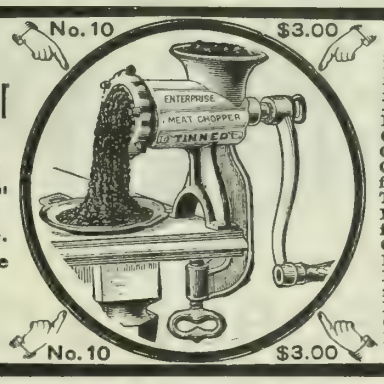

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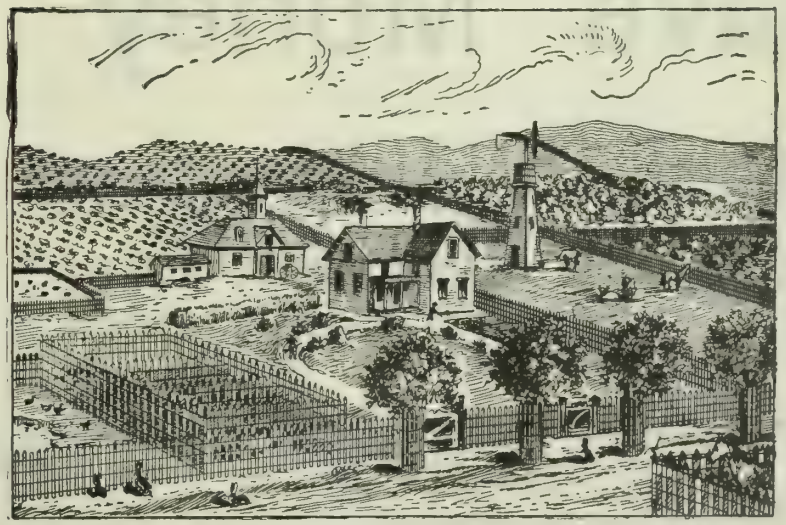

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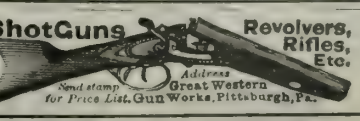

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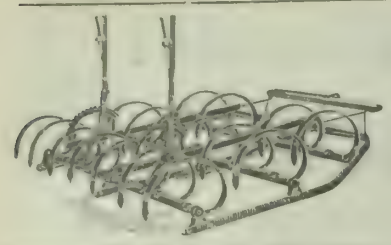

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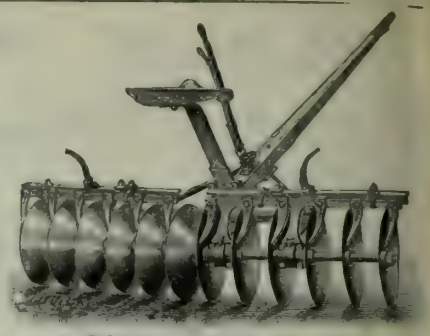

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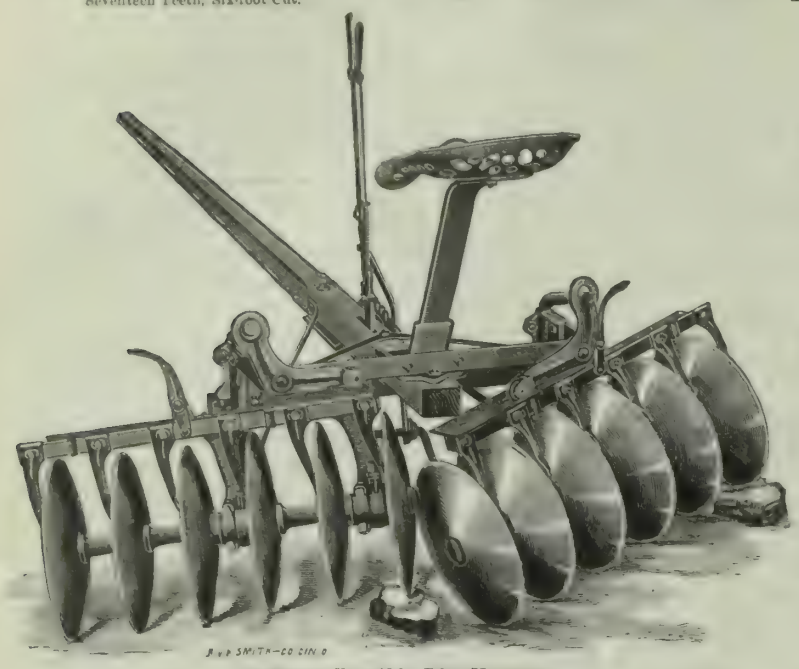

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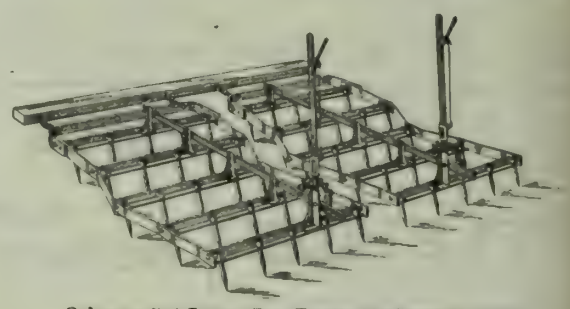

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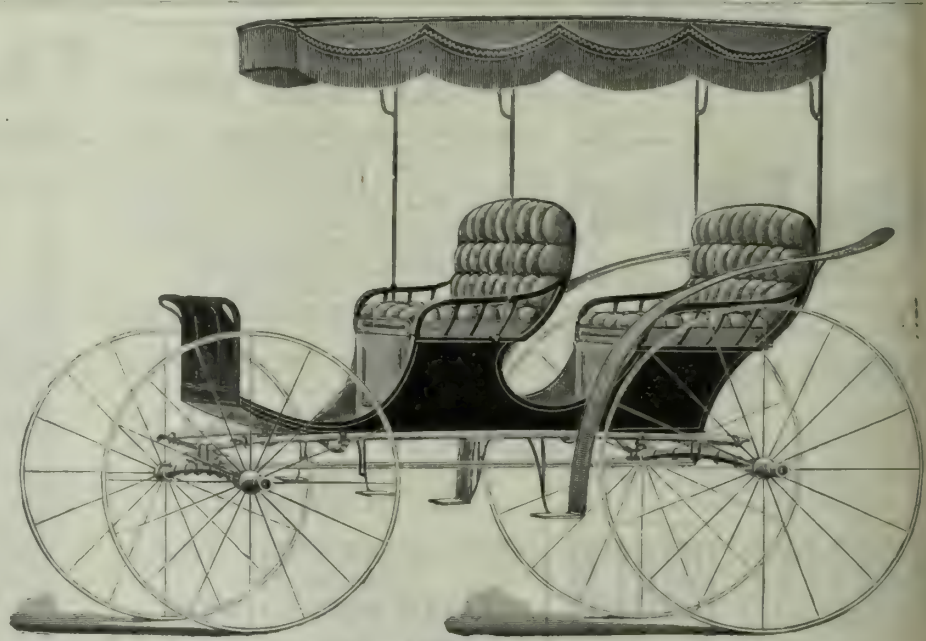

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PACIFIC RURAL PRESS

Vol. XLIV. No. 17. SAN FRANCISCO, SATURDAY, OCTOBER 22, 1892. THE DEWEY PUBLISHING CO. Office, 220 Market St.

The Northernmost Group of Sequoias.

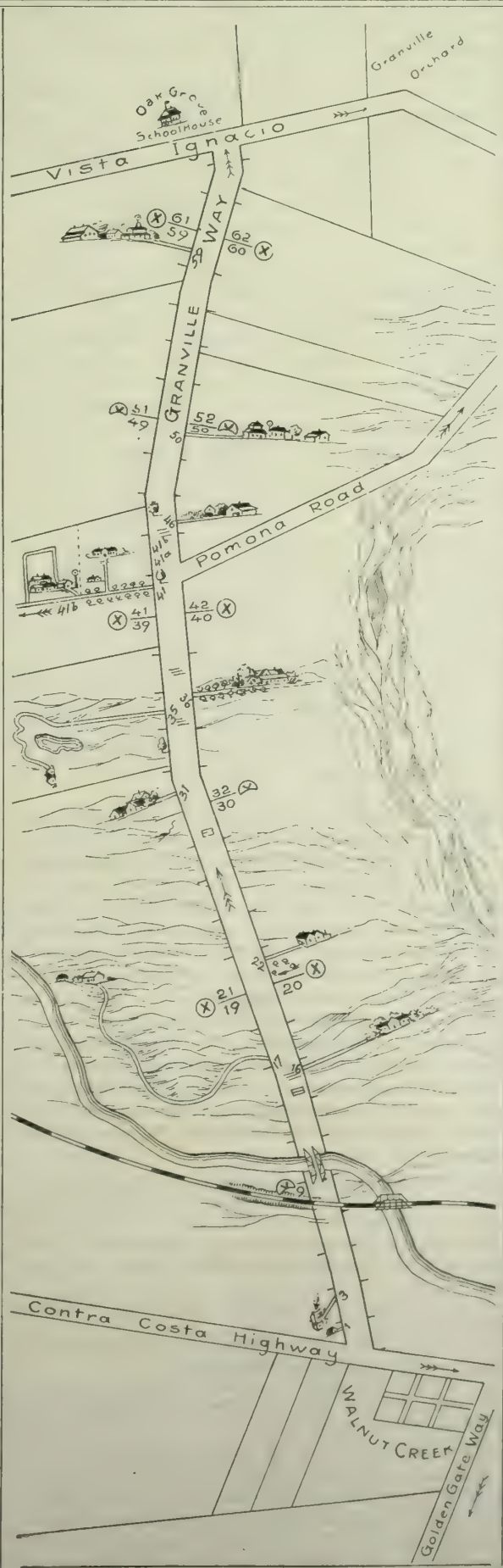
The announcement recently made public that a small group of big trees, isolated and difficult of access, existed in Placer county, has created wide interest. The sequoia bears such a weight of years and is so unique botanically, that the extension of their habitat northerly is a matter of real concern. We are glad to see that the Government is moving to prevent this heritage of the earliest times from falling into destructive or selfish control. It seems that upon the first announcement of the discovery Secretary Noble sent a special land inspector of his department to view the trees and see what was desirable to reserve them. This officer will recommend to the department that at least a township of land surrounding the immediate location of the grove be reserved by the Government for park purposes. In relating the particulars of his mission, the inspector, Major Weigel, said:

The grove, which consists of eight trees, is on a branch of the middle fork of the American river in Placer county, about seven miles southeast of Last Chance. Two of the trees are down, one of these being 25 feet in diameter. The average diameter of the others is about 17 feet. There are some young trees of the same species, sequoia gigantea, in the grove, but they have attained no great size. The region is difficult of access, but when once reached the surroundings are very picturesque, the little valley being hemmed in by precipitous mountains that are split in every direction by rugged canyons and wild ravines. Only a mile and a half distant is what is known as Big Oak Flat, a level plateau of considerable extent completely covered with a growth of giant oaks.

The existence of such a park at a distance from the Tulare reservation and nearer a great highway of travel than any of the other groves, will be a public advantage. It should by all means be immediately made and diligently protected.

THE GREAT WEST SIDE.—We are informed that the meeting of the Fresno county institute at Selma, Saturday, October 29th will be largely devoted to the discussion of an important local topic, viz., the Sunset Irrigation District and what may be accomplished in irrigating the West Side; the soil and all questions appertaining to such a great irrigation system. This is a very important topic and a proper one for a local institute to take up for elucidation. We should suppose the announcement would lead to a large assembly of West Siders at Selma and it is very possible that a thorough consideration of the matters involved might be very far-reaching in its effects. It is exceedingly desirable that there should be an authoritative and correct declaration concerning the important stretch of the country involved. There have been recent operations which tend to cast a shadow upon lands somewhat geographically related and anything which can assure the public that there are legitimate and promising enterprises, and really productive lands in the region, and that the worthless in land and the evil in enterprise are the exception and not the rule, will be pertinent. The Fresno institute has started one great movement among the raisin producers; it can do another important thing in the line it now takes up. In the evening of the Selma session, Prof. Woodworth of the State University will lecture on "Plant Diseases."

CALIFORNIA FLOWERS FOR THE WORLD'S FAIR.—Miss Faustina Butler, who was appointed last spring by the State World's Fair Commission to make a collection of the native flora of California and to make sketches of wild flowers has completed her labors for this season. She has returned from the Lake Tahoe region, where she secured a large quantity of seeds, bulbs, etc., of wild flowers which will be used in ornamenting the grounds around the State building at the fair. In all, Miss Butler has made about 400 sketches in oil and water colors, and has secured about 4,000 seeds and bulbs. She will leave this week for Chicago where she will superintend the planting and handling of the flowers.



A POPULAR CALIFORNIA RURAL IMPROVEMENT; THE TEN-BLOCK SYSTEM ILLUSTRATED.

SEE NEXT PAGE.

Figures Which Need Explanation.

Sergt. J. A. Barwick, director of the California Weather Service, has returned to his post at Sacramento after an eastern trip made for conference with leading eastern meteorologists. Among the correspondence which accumulated during his absence he finds two letters referring to statistics quoted from the RURAL PRESS in the Monthly Bulletin of the California Weather Service for August, 1892, which he sends to us for remark.

First is a letter from a Calaveras county orchard-owner, resident in New York, who writes:

I desire to know if the figures showing 770,000 fruit-trees in Calaveras county are correct. We have a few trees at our place near Milton, but I did not know there were so many in the county, and it seems an error.

It is unquestionably an error and the figures, though given officially in the report of the State Board of Equalization, are hard to account for. Whether some previous county assessor drew upon his imagination for a large figure and that subsequent reports have multiplied the error, we don't know. We have no confidence in the statement.

Another correspondent fitly alludes to a wrong view of things which results directly from railway methods of crediting produce shipments to terminal points instead of to the regions actually producing them. This point is fully explained by J. R. Williams, the Fresno Observer of the Weather Service, as follows:

Referring to the table of shipments on page 44 of your monthly bulletin for August, 1892, I wish to call your attention to the errors and omissions therein, and would request that in the interests of justice and accuracy, you make the necessary corrections. Fresno is not mentioned at all, and it ranks third in amount of exports; it is ahead of Sacramento or Stockton. Having no land or water competition, it is not made a "terminal point" by the railroad company, and all overland shipments via the C. P. and U. P. R R. are way-billed to Sacramento and Stockton, which places claim the credit, to the detriment of Fresno, which is gross injustice. To illustrate: You credit Stockton with 20,000,000 pounds of raisins, 18,000,000 of which came from Fresno. Stockton does not make raisins. For your information I give you the figures of shipments taken from the books of the Fresno freight office:

	1890. Pounds.	1891. Pounds.
Raisins	18 893.986	19,846 566
Dried Fruit	1,688,771	1,038 147
Green Fruit	4,653,448	3,180,947
Canned Goods	.....	1,878 550
Wine	.....	7,118,258

These amounts will be exceeded this year by 25 per cent.

The facts which Mr. Williams complains of could well have been noted in connection with the table, but we take it most intelligent readers know that raisin shipments credited to Stockton belong higher up the valley.

THE INSTITUTE AT NILES.—The Alameda County Farmers' Institute held at Niles, Oct. 15th, was excellent in spirit and in the interest manifested. The attendance was unworthy of the region and still there were enough bright people present to fill the time completely with important contributions. The leading proceedings will appear in our columns. One of the most taking features of the day was an essay by Mrs. Fleda Bunting, a lady fruit-grower, who has a wide name for horticultural and business ability. Such a paper clearly shows that our institutes are beginning to draw upon our best resources of successful experience and close-thinking, and this fact assures their success and value. Of course there were other good things at the meetings, as our columns will show.

STATE FLOWER OF WASHINGTON.—An official count gives the victory to the beautiful Rhododendron as State flower of Washington. The result was: Rhododendron, 7704; Clover, 5720; Gaillardia, 730; Washington Holly, 227; Marguerite, 84; Dogwood, 34. Total, 14,449.

CHOLERA BARRIERS THROWN DOWN.—The disappearance of the cholera scare is marked by the announcement from New York that immigrants are now landed without detention.

PACIFIC RURAL PRESS.

By The Dewey Publishing Co.

Office, 220 Market St.; Elevator, 12 Front St., San Francisco., Cal.

Annual Subscription Rate Three Dollars a year. While this notice appears, all subscribers paying $3 in advance will receive 15 months' (one year and 13 weeks) credit. For $2 in advance, 10 months. For $1 in advance, five months. Trial subscriptions for three months, paid in advance, each 60 cents.

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One inch	1.50	5.00	13.00	42.00

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Any subscriber sending an inquiry on any subject to the Rural Press, with a postage stamp, will receive a reply, either through the columns of the paper or by personal letter. The answer will be given as promptly as practicable.

Our latest forms go to press Wednesday evening.

ALFRED HOLMAN.....General Manager

San Francisco, October 22, 1892.

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BUSINESS ANNOUNCEMENTS.

[NEW THIS ISSUE.]

Nursery Stock—E. Gill, Oakland.
Nursery Stock—Van Gelden Wyhe, Stockton Cal.
Nursery Stock—Cox Seed and Plant Co.
Nursery Stock—J. M. Harris, Grass Springs, Mariposa Co.
Olive Trees—W. Alston, Hayne, Montecito, Cal.
Aermotor Co.—Chicago.
Dairy Machinery—G. G. Wickson & Co.
Plows—Baker & Hamilton.
Plows—Allison & Neff.
Shropshire Sheep—L. E. McMahan & Sons.

☞ *See Advertising Columns.*

The Week.

Another good rain has covered quite a large area of the State. It came quickly, fell generously and cleared brightly. Thus it records itself as a rain which brought as much good and as little evil as such an early rain can afford. It has in some places fitted the land for plowing, and yet the injury to the grapes which are still on the vines was reduced to a minimum by the immediate return of clear skies and dry air. It is the long, dank drizzles which spoil the late fruit.

So far, the season promises to be a good one to get fall and early winter work well ahead. Conditions bid fair to promote early planting (which is the best planting), and no time should be lost now in getting land into readiness for the trees by thorough and deep plowing. Land for new orchards should be broken just as early as the soil condition suits, and every drop of subsequent rainfall is stored for the first year's growth. To allow the early rains to evaporate from a hard surface, and then to get entangled in a rush of preparation and planting later in the season, is not good practice. If the land is plowed now and plowed again just before setting the trees, it will be all the better for it. People are apt to underestimate the advantage of getting trees into perfectly-worked soil.

Every thought which can now be raised above the political issue turns to Chicago. As we write on Wednesday, the telegrams are bringing forecasts of the great events of the World's Fair celebration of Columbus Day. The notables and the not notables from the four quarters of the country are gathering. Illinois has now more Governors within her borders than she has had in all her history. Friday will be a day of pageant, trumpet blare, oratory and pyrotechnics, which will make the eagle scream with delight. The Chicago small boy will feel more thumping under his jacket than ever shook the mantle of Columbus. Indeed, these are days worth living for.

The New Orleans Cotton Exchange statement of the movement of the crop shows a big falling off over the past two years.

An Agricultural Chautauqua.

The last decade has been notable for the multiplication of means and agencies looking toward the extension of agricultural education. Assemblies of agriculturists were never before so numerous nor so active in spirit and progressive in tendency. Agricultural colleges have increased in their student rolls, improved in their teaching force, and facilities for their instruction and have been more generously endowed with available funds. They have won increased popularity also by shaping their courses in length and in character to meet popular demands and necessities. The agricultural experiment stations have demonstrated their right to exist by the multitude of new facts brought to light through their investigations and the multitude of old facts which have been marshaled into useful and significant association. The Farmers' Institutes have arisen and flourished and have brought all other educational agencies nearer than ever before to the people who may profit by their work. A general view of all these allied and cooperative forms of activity would suggest the question whether any thing more can be done to promote the interests of intelligent and progressive agriculture than is now being carried on.

In view of a recent eastern announcement which has just come to our notice, we are disposed to declare that there is indeed one more agency which will serve grandly as a connecting link between the parts of the chain of intelligence which now encompasses the agricultural industry; or rather, perhaps, to serve as private lines to the central agencies of truth-seeking and truth-telling. Perhaps some will say, have we not already such means of connection? Do not the agricultural journals connect us with various centers of agricultural investigation and thought? Why, then, is anything more needed?

The agricultural journal cannot be a systematic instructor in the elements of agricultural knowledge. It presents them constantly, it is true, in one or another connection; it introduces them as they serve to build higher structures of theory or practice upon, but it cannot pursue a systematic course of instruction in agriculture any more than a political journal can satisfy its readers by confining its discussions to the elementary principle of government. The journal must reflect advanced knowledge, the most successful practice, the thoughts and methods of men who have either advanced far beyond the study of the elements or else by the empiric method have attained advanced truth without the systematic search for it.

Evidently, there must be some other agency by which young and old, who cannot pursue systematic study at a distant institution, may do the same in their homes. The institution must be brought to those who cannot go to it. This is the latest tendency in higher education; it is to seek those who, by force of circumstances, cannot seek it. The general name for this movement is University Extension.

Evidently in the dissemination of the principles underlying the truest agricultural practice, there must be a kind of university extension adapted to the most scattered element of our population. The Farmers' Institutes can reach most of them if they will, but the Farmers' Institute is really a sort of an advanced educational agency after all. There is demand for elementary knowledge the dissemination of which will advance the Farmers' Institute and increase its benefits and popularity. What can do this better than an Agricultural Chautauqua?

The credit for the first application of these ideas to agricultural instruction belongs to the Pennsylvania State College, which has organized the "Agricultural Chautauqua," or, in other words, a course of home reading in agriculture live stock, horticulture and floriculture. The plan is thus presented by the authorities:

The college offers to those who cannot take advantage of its facilities for agricultural instruction, aid in carrying on study at home, as follows:

1. A carefully prepared course of reading, designed to cover the most important branches of agricultural science and practice.

2. A reduction of price upon the books needed, all of which are standard works.

3. Personal advice and assistance through correspondence, topical outlines and supplementary lectures.

4. To those who desire, examinations upon the subjects read, with certificates and diplomas for those attaining a certain degree of excellence.

We should like to hear what our readers think of such a scheme as suited to their desires and needs. If a good showing can be made of the desirability of such an undertaking, it is more than likely that some local arrangement for it can be made. It is perfectly in harmony with work now being accomplished at the University Experiment Station. The instructors are constantly advising individuals by interview or correspondence on just such studies as are contemplated. It would only be a question of system and detail to lead hundreds in the same lines.

With such a community of pupils in all parts of the State, the Farmers' Institutes conducted by the University would find earnest promoters and participants. Such meetings would give opportunity for personal contact between teachers and pupils and for supplementary instruction, conference, and perhaps for examination. It is easy to foresee a system of elementary agricultural instruction more widereaching and available than anything which has been hitherto proposed. What do our young people think of it?

The Ten-Block System Illustrated.

All of the country roads of Contra Costa county have been officially named, the ten-block system of numbering the country houses has been adopted, and the work of establishing it is now being carried on. This system of numbering was devised by A. L. Bancroft of San Francisco, who has a farm in Contra Costa county, and the first full description of the system was presented in the Rural Press of June 21, 1892. Since that time it has attracted attention in all parts of the country as an excellent California idea. On another page of this issue there is another proposition of Mr. Bancroft for country mail boxes, and it opens with a brief outline of the "ten-block system" of numbering. Our present purpose is to give an object lesson in the application of the system by means of the engraving on the first page of this issue of the Rural.

The following information relating to the first road brought under the system, taken from the field notes of the "blocker" or surveyor who does the measuring, shows the character of the work and makes quite a satisfactory guide for the visitor driving through the county, as well as being very useful to the citizen, business man or politician who may wish to interview the people along the road. Later, a directory of the entire county should be published.

In the field notes, which will be carefully copied and permanently preserved in the office of the county clerk at the county seat, the exact position in the block of the entrances and connecting roads are given, as well as of the landmarks, such as trees, culverts, bridges, etc. The object is to make this work permanent, and to afford data from which to readily and definitely locate entrances, as houses may, years hence, be built along the roads.

By comparing the following with the map of this road given in connection herewith, quite a satisfactory idea of the system and of the work being done in Contra Costa will be reached.

For convenience in referring to the feature of the directory to the resident upon a road, the entrance numbers precede their names while the block numbers showing the location of the landmarks, etc., follow the enumeration of them.

The name of the first road blocked is

GRANVILLE WAY.

No. 81 in official road list. Begins at 211 Contra Costa Highway, at the town of Walnut Creek. Course at outset N. 20° E. General direction N. 35° E. Elevation at beginning 96 feet. Ends at 92 Vista Ignacio. Numbers in road 66. Course at finish N. 35° E. Elevation at end 154 feet.

Character and condition of the road: Partly improved; some of it raised in the middle and less of it graveled; a fair summer road; places almost impassable during a very severe winter.

Exact point of commencement, 429 ft. in No. 211 Contra Costa Highway (*i. e.* 429 ft. in or within No. 211, the distance from the beginning of the block).

1. E. Dunn.
3. Two-story white house—vacant.
Summit of small hill and crossing of San Ramon branch of the S. P. R. R., 484 ft. in No. 8.
Granville bridge over Walnut creek, 154 ft. in No. 12.
Culvert, 227 ft. in No. 16.
Small bridge, two floodgates, 306 ft. in No. 16.
16. Mrs. Wm. Rice, about .4 m. distant. Mrs. X. R. Hill.
17. San Miguel Stock Farm, about .7 m. distant, owned by Irvin Ayres.
Summit of hill. Fine view back beyond the town of Walnut Creek; 400 ft. in No. 20.
Spring, and willow trees, about 20 ft. back from road; 430 ft. in No. 22.
22. Manuel Welch.
Summit of Spring ridge. Elevation 250 ft.; 160 ft. in No. 26.
Fine view of Ignacio valley and Mt. Diablo, 28 | 26.
Sulphur spring, about 75 ft. back from road; 30 ft. in No. 29.
Culvert; 140 ft. in No. 30.
31. A. G. Gurnett.
Eucalyptus 2 ft. in diam. at edge of roadway; 394 ft. in No. 33.
Small bridge; 100 ft. in No. 36.
35. Antonio Ginocchio, about .7 m. distant.
36. E. Randall. Samuel Randall.
Small bridge; 300 ft. in No. 36.
41. H. H. Bancroft.
41a. Aloha Farm, .4 m. distant. Aloha Farm Nursery. A. L. Bancroft. Geo. Reed, Supt. Aloha Farm. Crofton and Granville Orchard. Bert H. Bancroft. Wm. Cury. W. P. Thomas.
41b. Crofton, 1.4 m. distant. E. Galli.
White oak 2.5 ft. diam. in roadway; 400 ft. in No. 41.
Pomona road. Course at outset E. 20° S. Elevation 160 ft.; 516 in No. 42.
Small bridge, 44 | 42.
White oak 3 ft. diam. in roadway; 337 ft. in No. 43.
46. F. G. Tuttle.
50. Lot Moore.
Interior of Ignacio valley. Fine view of Mt. Diablo and surrounding country, 52 | 50.
59. H. P. Penniman.
End of Granville Way; 367 ft. in No. 66. Connects with Vista Ignacio at 355 ft. in No. 92.

From an Independent Standpoint.

In last week's RURAL the cause of political independence was by inadvertence alluded to as "this new spirit." Nothing could be more misleading than this phrase, since the spirit or principle of political independence is by no means new. It is, in fact, the oldest of all the glorious principles which make up the doctrine upon which our Government is founded. It was this principle which inspired the Declaration of Independence; it was this principle which animated the men who fought out the Revolution; this principle presided over the deliberations which brought the Constitution of the United States into existence; and the strong and guiding hand of this spirit led the Government through the critical time of its earlier years. Whoever will study the history of the country will find that the highest development of the spirit of political independence was contemporaneous with our period of greatest moral and intellectual progress. The times that produced our wisest statesmen were times when men dared to think without fear, to speak and act without restraint.

Unable to meet the arguments of those who demand freer thought and freer action in political affairs, the advocates of practical politics resort to ridicule and abuse. Men like the late Mr. Curtis, who dare speak out in plain terms concerning the giant evil, are called "cranks" by those who, because of their ignorance, do not know that if these men are cranks so were those wise and good men who founded the Government and who brought it through its early trials. In his "Farewell Address to the American People," published September 17, 1796, George Washington said:

I have already intimated to you the danger of parties in the State, with particular reference to the founding of them on geographical discrimination. Let me now take a more comprehensive view and warn you in the most solemn manner against the baneful effects of the spirit of party generally. This spirit, unfortunately, is inseparable from our nature, having its roots in the strongest passions of the human mind. It exists, under different shapes, in all governments, more or less stifled, controlled or repressed, but in those of a popular form it is seen in its greatest rankness, as it is really their worst enemy. The alternative domination of one faction over another, sharpened by the spirit of revenge, natural to party dissensions, which in different ages and countries has perpetrated the most horrible enormities, is itself a most frightful despotism. But this leads at length to a more formal and permanent despotism. The discords and miseries which result gradually incline the minds of men to seek security and repose in the absolute power of an individual and sooner or later, the chief of some prevailing faction, more able or more fortunate than his competitors, turns this disposition to the purpose of his own elevation on the ruins of public liberty. Without looking forward to an extremity of this kind (which nevertheless ought not to be entirely out of sight) the common and continual mischief of the spirit of party are sufficient to make it the interest and duty of a wise people to discourage and restrain it. It serves always to disturb the public counsels and enfeeble the public administration; it agitates the community with ill-founded jealousies and false alarms; it kindles the animosity of one party against another, foments, occasionally, riot and insurrection.

What Washington saw in 1796 as a possibility, had forty years later become a demonstration. The evils of partisan domination were realities in 1832 and we have the opinion of Daniel Webster concerning them in a speech delivered at Worcester, Mass., on October 12 h of that year. Said Mr. Webster:

The same party selfishness which drives good men out of offices will push bad men in. Political proscription leads necessarily to the filling of offices with incompetent persons, and to a subsequent mal-execution of official duties. This principle * * * elevates party above country; it forgets common weal in the pursuit of personal emolument; it tends to form, it does form, we see that it has formed a political combination united by no common principles among its members, either upon the powers of the Government or the true policy of the country; to hold together simply an association under the charm of a popular head seeking to maintain possession of the Government by a vigorous exercise of its patronage. * * * If this course of things cannot be checked, good men will grow tired of political privileges. They will have nothing to do with popular elections; they will see that such elections are but a mere selfish contest for office; they will abandon the Government to the scrambling of the bold, the daring and desperate.

It would seem that the "cranks" who are painting the party spirit in the colors of its true infamy and who are pointing out to the American people that the way of honor lies in a new birth of political independence among the people have very good authority for their opinions. But perhaps in this latter day and generation there are men so wise as to deem George Washington and Daniel Webster impractical cranks.

If we have as yet escaped the "permanent despotism" which rose hideously before the imagination of Washington, we have so suffered under the lesser evils which he enumerates as to attest the keenness of his judgment. Already we have seen the spirit of party "disturb the public councils, * * * enfeeble the public administration, * * * agitate the community with ill-founded jealousies and alarms, * * * kindle the animosity of one party against another, * * * foment riot and insurrection." Who is bold enough to say that, if no way is found to check and overthrow this evil spirit, we shall not suffer the catastrophe of Washington's dreadful picture, and in the end, indeed, witness "despotism" established upon the "ruins of public liberty"? Already we see good men abandoning their political privileges, wearied and disgusted with the shameful contests for spoils which we call "practical politics." We see the high duties, which in the better years of the republic commanded the wisest and ablest men, abandoned, as Webster predicted they would be, to the "bold, the daring and the desperate." It is the spirit of party which has wrought this havoc. The duty of the hour, the duty before all other duties, is to unhorse this spirit; and the way to do it is to liberate men from party bondage, to educate them in the principle of country before party. The work will not be accomplished until the first tenet in the political creed of the American citizen shall be: "*Country before party; for party when it is right!*"

But the effect of the party spirit upon the Government, degrading and destructive as it is, is but one and by no means its most serious consequence. Far worse than the destruction of our Government would be the destruction of the noble courage which created it. The party spirit in its worst aspect is seen in its relations to private character. It stifles the better impulses of man; it condemns intellect to paralysis and decay; it cowers the brave; it weakens the strong. If this be doubted, look at our gagged and degraded public press; witness the decline of influence in the pulpit; see the evidences of moral degradation attested by the control of the "boodle" element in public affairs outside as well as inside the pale of politics! But in spite of all this, there are hopeful signs. There are indications unmistakable of revolt on the part of the conservative, moral forces of society. This year, for the first time since the war, great numbers of citizens are declaring their independence of party rule and their purpose to vote for principles rather than for names. This spirit is seen on every hand. It is not a new spirit, but the revival of an old—a new birth of that political independence which inspired the Revolution and brought the Nation into being.

It might have been supposed that on the one occasion in the present campaign, when Mr. Blaine was induced to address his fellow-citizens, he would say something worthy of his great abilities and his great fame; but the occasion has passed and the friends of Mr. Blaine have less cause to commend him than to apologize for him. On last Thursday night, Mr. Blaine was the guest of Whitelaw Reid at Ophir Farm, White Plains, N. Y., and in the evening some hundreds of Mr. Reid's neighbors called to pay their respects to him. Mr. Blaine made a few general remarks about the tariff, then spoke as follows:

I see it is stated that the Democrats boast of having the mass of the Irish in their ranks this year. It is one of the mysteries of our politics that the question which interests England so supremely, which is canvassed almost as much in London as in New York, should have the Irish vote on the side of Great Britain. I know appeals are frequently made to the Irish voter, and I make it with emphasis now, for I am unwilling to believe that with the light of knowledge before them they will deliberately be on the side of their former oppressors.

Nothing can be conceived in a spirit narrower than this. It is an appeal in the bluntest possible form to a foreign prejudice which has no just relationship to American politics. It is an attempt to revive, for campaign purposes in America, a feeling which every Irish emigrant ought to leave behind him when he turns his face toward the West. The tariff question in the United States is a question of policy to be determined upon a just consideration of the facts and arguments; and its effects upon England form no good reason for or against it. Nobody knows this better than Mr. Blaine, and nobody knows better than he that any attempt to swing the Irish voters into line in favor of the protective tariff by stimulating their animosity toward England is very small and contemptible politics; and it seems the smaller and even more contemptible in a man like James G. Blaine, capable at all times of saying the truest and the wisest things.

THAT MYSTERIOUS VINE DISEASE.—It seems likely that we have been whistling before we really got out of the woods in speaking of the disappearance of that inexplicable vine trouble which is now known as the Anaheim disease from the place of its first appearance. A dispatch this week from Santa Ana says the disease is reappearing in southern California. Vines brought from distant parts of the State, and planted on land from which former vineyards had been removed by the disease, are now showing the same disease. If this be true, it will be a great disappointment to those who only recently reported that the trouble had disappeared and the vineyard interest might be restored. We trust the announcement may not be true.

American Persimmons.

MARKSVILLE, LOUISIANA, Oct. 15, 1892.

TO THE EDITOR:—As a test of their shipping qualities, I mail you sample fruits of three varieties of our native American persimmons. It has only been recently found out that we can ship them just as well as the pear if picked when yet hard. I get fancy prices for them in northern markets. It pays better than the pear. I am preparing to set a large orchard of them. I expect to set more of the seedless variety; you will find them much superior to the Japanese sorts. They are never caught in bloom by late spring frosts—sure croppers, very prolific, and will thrive and do well even on our poorest kind of soil without any cultivation whatever.

J. L. NORMAND.

The persimmons arrived in perfect condition, some just right to eat, others just right to pucker. We agree with the judgment of our Californians who hail from the southern States that the native persimmon excels in delicacy of flavor the Japanese varieties grown here, but when it comes to size and beauty there is no comparison at all—the Japs are clear out of sight. The seedless variety which Mr. Normand most favors is a very small fruit not over one inch in diameter. The largest variety he sends is about 1¾ inches in diameter, with six immense seeds, which displace much pulp.

The Japanese persimmons have not yet established their claim to distinction as a profitable crop here. Very enterprising efforts have been made to market them acceptably and to instruct the purchaser as to the way to ripen and eat them, but the effort has not accomplished much so far. Once in a while, however, a few persimmons sell very well. We doubt whether there is much future for the native persimmon in our markets. Some may sell well to southern people who may like to recall old times, but we should not care to own many trees. The growth at the South for the northern markets may, however, prove profitable and considerable amounts may be disposed of.

An Issue on Hops at the North.

It is telegraphed this week from Tacoma that the Washington hopgrowers claim the existence of a combination between the chief buyers and brewers of the Northwest to bear the hop market. They say the buyers are keeping out of the field, only buying the hops offered by growers who are obliged to sell. State Senator Van de Vanter of Kent, a large grower, says hops will bring 40 to 50 cents a pound before June, and he has advised the growers to hold for better prices. The first sale of the season was made Oct. 15th in Puyallup at 20 cents. Buyers deny that that the combine exists.

We cannot, of course, affirm the existence or otherwise of the alleged combination. It is perhaps natural enough that such an effort should be made in view of the present and prospective value of hops. Buyers and brewers always try to get cheap hops. The growers should, of course, know that the situation in hops is strong and the outlook fine, and if they can't arrange to relieve themselves from the depression by local dealers and consumers, they must be short of resources. Still, care should be taken not to be misled by extravagant views. The hop market is the most flighty one in existence, and sometimes it flies amazingly high. The present chance seems to favor considerable soaring.

Note from Mr. Coulter.

Comment on a Phase of the State Proceedings by a Past Master.

SANTA ROSA, Oct. 17, 1892.

TO THE EDITOR:—The *unofficial* report of the proceedings of the State Grange published in the issue of your paper of October 15th inst., closes its reference to "Lost Causes" as follows:

As above noted, the preamble to the cooperative legislative resolutions calling upon candidates for office to pledge themselves to the five measures presented, was lost. This was perhaps the hottest incident of the session. The special significance was due to the fact that Worthy Master Davis of the State Grange is now a candidate for Congress, and that, should the preamble be adopted, he would be the first called upon to pledge himself, and that by so doing he would place himself in opposition to powerful political elements in his district. There were whispers about San Jose that the effort to put through this preamble had its chief motive in a desire to down Mr. Davis, but there was nothing to support this charge.

It is gratifying to myself, as a member of the legislative committee, to have the testimony of the member from Tulare, that there was nothing to support this charge.

But the whole history of the State Grange since Mr. Davis' connection with it up to last May, when the committee formulated the resolutions and report referred to, is a refutation of the charge.

The resolutions reported by the committee were taken from the journal of past sessions of the State Grange and were but reiterations of *its* utterances. And the report was in direct line with its former acts, and in accord with the advice given by Worthy Master Davis in his annual address, delivered before the State Grange at Haywards in October, 1891, in the following language, to wit:

From the committee on legislation appointed by this body one year ago you will have a full report. For further particulars of work done by them and legislation enacted, reference is hereby made to that report. But before quitting this subject, let me say, I hope such action will be taken at this session as will prepare us intelligently to act for our own interests at the next general election. See to it that no man is sent to either House of our State Legislature who will not pledge himself to vote for a mutual insurance law, for a senator of the United States who is pledged to the elections of United States senators by the direct vote of the people and for the free and unlimited coinage of all silver dug from American mines. See that any man who wants to represent you in the lower hall of Congress is alike sound on these questions Look well to legislation.

This paragraph of the master's address was referred to a committee and upon it a report was made and adopted, endorsing

the sentiments therein. Said report concluded with the following language:

And we would further recommend that at the coming election all members of our Order use every effort to secure the election of good and true men to Congress and our State Legislature, and that a pledge be exacted from candidates that they will support the passage of a mutual insurance bill, the election of United States senators by direct vote of the people and that they will so vote and work as to compel the great corporations of the country to pay their just debts, pay their taxes and pay them when due, failing in which that he will support all and every measure, both in our State Legislature and in Congress, to work forfeiture to the Government.

It was in pursuance of recommendations and actions like the foregoing that the committee, whose report was under consideration, had been appointed and had performed the duty assigned and made report.

"The special significance" of this somersault of the State Grange and its worthy master—this most egregious stultification of a long and well-established policy—a policy in which it had attained a gratifying measure of success, is strongly hinted at by the author of the published report in the *candidacy* mentioned.

It was a great blunder. Carrying water on both shoulders is a difficult undertaking.

Christ said: "He that is not with me is against me." Good old Brother Nelson used to say: "If you are with me, why in the devil don't you say so." S. T. COULTER.

Firing Against Frost.

The experience of last winter was such as to impress upon orangegrowers the need of some effective and economical method of raising the temperature in the orchards in case it should again drop to so dangerous a point as that of last Christmas evening. It is true that there are few points where serious injury has before been done by cold, but nobody knows when the vagaries of the weather clerk may inflict another dose of unfavorable weather upon us.

The smudge fires formerly made use of in isolated cases, have been found useless in a case of unusually low temperature, and are no longer considered worth bothering with.

There are several growers of Riverside who, as the result of their own experience last winter, propose henceforth to keep ready for use in winter, appliances for warming the orchards on a scale likely to make the scheme a success. They claim to have demonstrated to their perfect satisfaction that the temperature can be raised in a cold night from four to ten degrees by the use of fires at regular intervals throughout the orchard. While it would pay to make use of these at considerable expense they have not been satisfied to trust to the crude methods of the past.

Several large growers have provided themselves with coal oil cans, in which they will, after making a suitable hole in the bottom to admit a draft, lay kindling of an easily ignited sort and upon this put ten pounds of New Mexican coal. This fuel is bought cheap in large quantities. The loaded cans remain under the trees to be moved into the open spaces in case of need. When ignited they give forth a considerable heat, and will burn six or seven hours. Different orchards will use from eight to twenty-five fires to the acre. There is little doubt that with the larger number of fires named there would have been entire immunity from harm last winter. By this plan the first cost is inconsiderable, the charge for each can costing about ten cents, or from 60 cents to $1.25 an acre per night.

Another method, and one likely to be more extensively and permanently used is one devised by H. B. Everest. It consists in locating a row of tanks containing a cheap grade of petroleum, from which pipes are laid so that the oil can be run into receptacles in which it is burned. The amount can be graduated so that the amount of flame can be large or small as is required, and can be turned off entirely if the weather moderates. This plan promises to be the most effective, and in the long run the most economical, though the first cost is considerable.

Another plan is to use a small tank containing enough oil for one or two nights. This plant will have a minimum cost of about $15 an acre. If the fires are increased in number the cost will of course be increased.

This fuel will cost about the same as the coal. It will be more economical in one way. The coal once lighted must all be consumed, while the oil can be turned off at any time. This is far more easily handled, as one man could light and extinguish an immense number of fires easily and they require but little attention.

Where neighbors can combine to prepare for protection they can be tolerably certain that all the cost and trouble will be repaid in the insurance of safety gained. Individuals can effect something alone, but we have thus called attention to this matter to suggest the need of cooperation, which will lessen expense and make results more satisfactory. The expenditure of a few thousand dollars last year would have saved a half-million dollars in this valley, and though the chances are against another cold night for the next eight or ten years, the danger is enough to warrant these reasonable precautions.—Riverside Press.

Coming Horse Sale.

A chance to get a good horse, one whose breeding is of the best, as well as a fine individual, is afforded often when the price will suit both seller and buyer alike, but the opportunity is now presented of getting an animal whose breeding is vouched for at the buyers own price. We refer to the auction sale of the "Oakwood Park Stock Farm." The offering will consist of standard-bred trotting youngsters, colts and fillies, and a few head of those famous Cleveland Bay horses. The sale will be held at the Oakland Trotting Park (Shell Mound Station) on Wednesday, October 26th at 12 o'clock. Every animal offered will be sold at square auction sale, neither in nor by-bidding being allowed. Killip & Co., 22 Montgomery St., will conduct the sale and furnish catalogues on application.

THREE thousand two hundred and four acres have been subscribed to the Cooperative Sugar Factory at Anaheim. Deeds to 1700 acres have been handed into the corporation, and now the work of putting up the factory will begin.

FRUIT MARKETING.

The Orchardist's Perplexities, Problems and Rewards.

An essay read by MRS. FLEDA BUNTING, of Centerville, at the Alameda County Farmers' Institute.

There are many vicissitudes in the life of an orchardist. We have our heavy years, when prices drop so low it hardly pays to pick the fruit. We have the scarce ones, when every pound is worth taking care of. We must spray for the codlin moth in spring and the scale in the fall. We must see to the pruning. We must decide between old-fashioned plowing and new-fashioned cultivators. There is the budding and grafting; the tieing and propping up; the thinning out, and just when one might think of a breathing space or dream of a duck hunt there are boxes to be made or wild morning-glory or hoarhound to be grubbed out.

On the years when blossoms are few and far between, when the half-formed fruit drops to the ground, and we realize that Nature is in one of her indolent moods, we begin to receive calls. The gentlemen represent different canneries, driers or commission houses. They vary in their different ways of doing business, their way of talking and plan of action, but almost without exception they are well dressed and drive dashing turnouts. Why, we can tell a fruitman as far away as we can see him! They all represent the oldest, most reliable or most accommodating of firms. Then is the time when we must weigh each price against the other. One will do better on one fruit, another favors a second variety; a third cannery gives a good price, but is too particular. This one is a fair talker, but we all know just how they try to squirm out of full weights, fond of throwing out and slow about returning boxes when the day of settlement arrives. Still another way, shall we depend upon the market? O that treacherous market! It would take a wise prophet to tell what a week would bring forth.

On the plentiful years we do not receive so many calls, and when they *do* appear there is no talking business; they are simply around to see what the outlook is. If a price is made, it does not suit *us*. Then comes the time when the poor orchardist dons *his* best coat and makes *his* calls. He finds, however, that the canner is well posted and prepared. He is not like the orchardist having no fixed price, but accepting the best he can get. The canner has a price, and a *low* one. You may go far and near, they are very indifferent—tell you they have bought about all they care to. You have but three choices—sell at canners' figures, send to market or dry. The second is out of the question on full years as long as the fruit is handled in the present way. One sighs as one thinks of the drying, the picking, the cutting and spreadtng, the sulphuring, watching and drying; then the picking up, the sweating and putting away, and always the cash at the end of the week, for the cutters must be paid each Saturday. O it is hard work to be thus independent! If one was sure of being well paid, that would be all right. Last year, however, plainly demonstrated that such is not the case. There is no use talking, it is a wrong state of affairs when we lose money on a plentiful year, and on scant years sell our refuse for more than No. 1 fruit will bring. That was the case this year.

We are gradually working up the eastern market. We even probe England and touch other tender spots, but have we made the most of our home market? It is a little like sending all our money off to missionaries and forgetting those near by, or grain to suffering Russia and neglecting our own poor. What have we done about the market here? It is run just as it was 20 years ago. It has not changed with the times. We have left it to the tender mercies of the commissionmen and the peddlers. That they handle it to their own advantage is but human nature. Of course the canners come in first, taking the best and most. They get it cheaper, because they take such quantities. The hotels get second best, and so on, until, when the mass is supplied, they receive fruit that we would not consider fit to use. Over and over parties will come from San Francisco or Oakland, and, on tasting and viewing the fresh fruit, say: "Where does it go? What does become of all of it? We never see any of it! Why, I had to pay so and so much for such inferior trash." We have regular customers that let us send the fruit just as it comes along, and they pay the freight. They get it much cheaper, and better fruit; as one frugal Chinese cook said, "No wastey one."

There is some means of reaching the middle classes of San Francisco with our best fruit—parties able and willing always to pay a good price for a good article. It is a problem that would solve this "dumping in the bay" and "glut in the market." It seems to me that our orchardists have neglected a vital point when they overlook this. Sooner or later this question will be solved; the sooner the better for us. I firmly believe that if every farmer and orchardist were active members of the Farmers' Alliance, the time would have arrived ere this. Who can answer the oft asked question, "Why will not the farmers, like all other classes, unite?" Whenever there is an effort at combined strength, you always hear the sneer: "They will never stick together." Other producers set their own prices. Manufacturers control their own goods, but the orchardist must politely ask some one else to set his, and bow meekly when he receives his price, no matter how poorly paid. It is all wrong. There is a certain price, based on the actual labor and expense, at which fresh and dried fruit will pay. The orchardist should be the one to determine the price, and at that it should be sold, and no less. Several methods have been discussed, but I do not believe any will be feasible until there is a united action. We do not want any failures. We watched the auctioning method with much interest, and while I, for one, did not feel that it was the best way, still the determined opposition of the commissionmen made me feel it was in the orchardists' favor. There is work ahead; the sooner done the better.

But now for the other side. With all these troubles and worries, there are many bright sides. Where is there a more enjoyable, independent or healthy life? A lovely tree to shade you, delicious fruit coming in, busy fingers packing for market, canning or drying, the choicest morsels for your own use. Some way there is certain satisfaction in knowing that the millionaire living in the city, with all his coin, cannot procure as delicious a peach as the juicy rareripe which you and your family enjoy, fresh and unbruised, from your own trees. There is a satisfaction in knowing that at least in our lovely valley the soil will always give us a living. If times *are* hard and money scarce, we can get along until crops are brighter and prices better. With a few good hens—producing their eggs and broilers—scratching for their living around the family cow that munches the little patch of corn or alfalfa—cream, milk and butter—to the blessed pigs that can snap their jaws over wormy apples and sour milk, without a thought of cholera—what is better than homemade hams, bacon and spare ribs? The vegetable garden—lettuce for salad, cabbage for the corned beef, your own potatoes, string beans and sweet corn. A few luscious berries. O yes! we can defy hard times and work and pray for better. We can always be thankful that, of all places on earth, the Lord has put us right here to spend our lives. Where could we have found a more lovely one?

The Year's Output of Beet Sugar at Chino.

This season has seen a great stride forward in the beet-sugar industry. The acreage was increased, the cultivation has been more intelligent and thorough, better yields have been obtained and a much better quality of beets harvested.

Last Saturday evening the last load of beets of this season's crop was delivered at the factory, and the season's work was wound up in a most satisfactory manner.

The entire crop of beets on the ranch delivered to the factory this year amounted to 27 098 tons gross, for which the factory paid $111,910.68. The average price per ton paid for the beets delivered during October was $4 30, and the average price for the entire season was $4.25. This price was based on an average of 15 per cent sugar.

The sugar percentage in the beets harvested here this summer is unprecedented. In the great beet fields of Germany and Austria, where a large part of the world's supply of beet sugar is produced, the average percentage of sugar in the beets is from 12 to 12½, and 14 is the highest percentage of sugar ever produced. Beets here this summer have gone as high as 22 per cent, for which the price paid was $6 per ton.

While the proper selection of seed and intense cultivation are important factors in this result, yet the clear skies, genial sunshine and equable temperature are the natural conditions which make this climate an ideal one for the culture of sugar beets.

The direct sugar product from beets, known as "firsts," has been finished at the factory, but there still remains a number of large tanks of syrups which will be worked up next week. The sugar output for the season by months has been as follows to date:

July, lbs	1,323,141
August, lbs	2,481,898
September, lbs	3,000,326
October to the 10th, lbs	882,020
Total to October 10th	7,687,385

The government bounty on this sugar will amount to $136,894.84. To this may be added probably 60,000 pounds for the syrups yet to be worked, and we have a total of say 7,747,385 pounds—3874 tons. Loaded into freight cars this would make a train of 200 carloads, or 10 trainloads of 20 cars each, solid to sugar from the roots grown on Chino soil. How many cups of coffee will that sweeten! How many cakes will it make!

But what does the production of these 200 carloads of sugar mean? It means the distribution in Chino for the beets and labor of about $250 000 this year. Mr. Gird's pay-roll for September for ranch labor alone amounted to $6217.16. The Sugar Company has paid for labor in the factory during the campaign $33,000. The factory has employed about 170 men during the campaign, and in the beet-fields there have been employed during the summer from 200 to 600 men. Mr. Gird alone at one time had 450 men on his pay-roll.

The returns from the crop to the farmers have been almost universally satisfactory. From $60 to $90 an acre have been realized from the crop, and that represents but very little invested capital and about six months' work. Men of small means who came to Chino a year ago are now enjoying a reasonable prosperity, and are building up for themselves homes surrounded with comforts and conveniences. The virgin soil of tens of thousands of acres is being made to blossom, produce and support a constantly-growing population. Hundreds of laboring men, who from the overworked fields of the older industries have been crowded and buffeted from place to place, are here finding steady employment and good wages, and are laying the foundation for a competency. The salvation of this country, as it has been of the older ones, will be the manufacturing industries which grow up in and around the great fields of agriculture. In this, Chino is in the van, and is reaping the benefits of wise forethought and bold enterprise.—Chino Champion.

N. E. SAGER, of Redding, is in the city closing up a deal for $300,000 worth of Mendocino county timber lands. The purchasers are Chicago capitalists, who will probably put in some extensive sawmill plants to furnish redwood lumber for the Eastern markets.

HORTICULTURE.

An Arraignment of the So-called Picholine Olive.

SANTA BARBARA, Sept. 27, 1892.

TO THE EDITOR:—As I feel perfectly sure you are deeply interested in gathering any facts that will throw light on the horticultural interests of California, I therefore send to you a letter received from my brother, A. P. Hayne, who is devoting four years to the study of viticulture and oil-making in Europe. The information I now send to you all came about in this way, and I therefore wish this heading published so that my motives will be fully understood. Some months ago I received a pamphlet through the postoffice, and these pamphlets were generally circulated throughout the entire State. The work was by Mr. Adolph Flammant of Napa, and he took special pains to try and induce the public to believe that the Picholine olive of California, so called, was a very superior and well-known variety in France. I read his work and was pretty thoroughly convinced that Mr. Flammant was just talking; still I knew that these pamphlets would reach many a man who would be utterly at a loss in regard to the truth of the statement. As far as I am concerned, I am quite familiar with the Picholine (so called), besides having 15 other varieties of olives now growing and bearing. The Mission olives, which are the standard of California, of which I have 200,000 young trees, and which are considered a very fine variety, Mr. Flammant abuses openly, and tries to convince the public that the so-called Picholine should take the place of them all. Mr. Flammant speaks of Mr. Ellwood Cooper's trees (Missions) as only bearing a handful of fruit, etc. I have seen Mr. Cooper's trees perfectly black with fruit, and he tells me that some of them yield as high as 40 gallons per tree, or 240 pounds, and a few of his trees have given over twice this quantity. Yet Mr. Flammant, in his very fluent way, is trying hard to convey to the minds of the planters of olives that they should uproot the Missions and supplant them with Picholines.

After reading his pamphlet, I enclosed it to my brother, who was then in France, and begged him to thoroughly investigate the matter, and then to write to me. I received his reply and have enclosed it to you. I have been propagating the olive now for 11 years, and when my brother was here in California he studied them carefully also, and then he went to Europe, where he is in a position to find out many facts which we in California would be at a loss to know. I now think that Mr. Flammant may regret that he sent me one of his numerous publications, for I have spared no pains to thoroughly expose a man who not only strikes directly at my occupation, but who is also doing all he can to mislead the public generally. Many a man may ruin himself, supposing, as he well may, that Mr. Flammant's work on the Picholine olive is sound. The public may therefore be somewhat interested in the letter I now enclose you, especially the olivegrowers.

W. ALSTON HAYNE, JR.

THE OLIVE IN FRANCE.

MONTPELLIER INSTITUTE, Aug. 31, 1892.

Since receiving your letter asking for information concerning the Picholine olives, some months ago, I have revisited the entire region *de l'olivier* in France, and also those parts of Italy north of Pisa and Florence, and have gained all the information possible. In California you can have no idea of the extreme difficulty one has in attempting an investigation of this sort. It seems a very simple thing to go to a man—an olivegrower—and ask him what varieties he has—yes, very simple, but what kind of an answer do you get? He gravely tells you of names you never heard of before, of qualities that, if half were real, absolute perfection in olive varieties would be realized. His neighbor gives the same trees totally different names and different qualities, and so they go from farm to farm, Commune to Commune, and finally from Department to Department.

There are, however, a few gentlemen proprietors in France who have studied the question, and after 30 or 40 years of study can tell you somewhat. I had interviews with Prof. L. Degruilly, Professor of Agriculture at the National School of Agriculture at Montpellier, author of a book on the varieties of olives grown in France; with his collaborateur Prof. Pierre Viala, professor at the Institute Agronomique at Paris, Mr. Gaston Bazile, the pioneer scientific agriculturist of southern France, a gentleman who was famous as a scientist and *practicien* over 40 years ago, one who knows the Midi like a book. I also visited the country places, and had interviews with many of the oldest and most important olivegrowers of the region, besides long interviews with Prof. F. Gas, director of the Agricultural school at Antobes (Var), and Mr. Mari of Nice, without doubt the most capable person to discuss the subject yet met with. These are but a few of the authorities I shall quote. As for books, I have read all I could lay my hands on, in Latin, old French, modern French and Italian. The conclusion come to is that all that is printed in that circular broadcasted by Adolphe Flammant, one of which you sent me, is utter nonsense. His quotations from a lot of old literary dictionaries to support his thesis is too absurd to be listened to; besides, in all the cases that I could obtain these long dead and buried literary works, I find that he has only half quoted. But that is neither here nor there. The fact remains that it is not true.

In the first place, he says that the variety of olive bearing a small fruit, known in California as Picholine, is one of the "*best known* varieties of the Midi of France." This is false, for no one ever heard of it. I visited the Communes mentioned, and can speak from a three years' residence in their very midst, and a previous knowledge of the California variety besides the authorities given on the first page. Mr. Flammant can say what he likes, nobody knows it at the places mentioned by him, or anywhere else, and I defy him to find it under the name of Picholine. Again, he says that this special variety of Picholine (of which he has a large stock to sell to the people of California) was created by "Picholine himself," by *grafting* the Soarin on the Sauvegeon (wild olive). Aside from anything else, he shows himself either utterly ignorant of the fundamental principles of horticulture or willfully dishonest, for no one ever heard of creating a new species by a *graft*. He might as well talk about flying to the moon at once.

The name *Picholine* is variously used in France to designate a special way of curing olives for table use, or applied to all varieties used for pickled olives.

You will find in a previous letter the synonyms of the Picholine as given by Degruilly. All these are known to be fit for table use only—never for oil. Again, among the Languedoc peasants the name Picholine is given to any variety whatever that has a pointed fruit, slightly curved. The fact is that the Picholine brothers of the Commune of Miramas, Bouches des Rhone, France, introduced a method for preserving the fruit for table use. This was during the last century. The method was an improvement on those already existing, and soon spread; but in order to distinguish olives thus prepared from those prepared in other ways, the name of the inventor was given it.

As only large, fleshy olives were used (see synonyms), it soon came to pass that all varieties fit for pickling came to be known as Picholine; mind you, these varieties had been in existence and well known before the Picholine brothers were born. Therefore all talk about this special variety being *the* variety of France is absurd, and all the carefully prepared facts concerning it in France, to say the least, make one want to know something of Mr. Flammant, his motives, etc.

When I found that all the authorities on the subject were agreed as to the fact that no such variety, known as the Picholine in California, existed in France under this name, I tried to find out some variety that could have been mixed in with the original cuttings sent to California. This was no easy matter. With a great deal of patient search and the invaluable assistance of the gentleman just named, I think I have discovered it.

In the Arondissment of Aix, Communes of Eyrorgues or Eyguieres, there is found a small-fruited olive resembling the Picholine of California. It is known to the peasants as Dendiverdi or Dentiverti. It grows side by side with the Picholine proper (see synonyms) and might easily have been mixed up with the original cutting of the true Picholine.

An old man who has grown olives all his life (he is now 86 years old) told me that this variety was from the nature of the case unfit for pickling, but that the peasants let it stay and made oil from it for their own use. The consensus of opinion seems to be that so far as quantity goes, it yields as much as the regularly accepted oil varieties, but that the quality of the oil is vastly inferior. Not only is it coarse, but that it cannot be so clarified as to avoid excessive deposit of dregs; hence it will not keep so long as the oil made from other varieties, nor will it bring a paying price on the market. As it takes 15 or 20 years to get an olive tree into bearing shape in Europe, the peasant leaves it where it is, using the oil for himself. Both Mr. Mari of Nice and Prof. Gas of the Var agreed on this point, so I think it is very probable.

There are other varieties that resemble somewhat the Picholine of California, but I refrain from giving their names for the reason that when I saw them the fruit was too young to give me an accurate idea and I have not at hand an accurate botanical description of the California variety in question. Besides, I think the Dendiverdi fills the bill.

In his circular Mr. Flammant says that the Picholine is free from the "*scale bug*" and "black smut." This is untrue. In California I have seen it as badly attacked as any other variety, and while I have seen it entirely free from insect pests, yet it must be noted that at the same time the Mission and other varieties were also free.

After my studies in Spain, France and Italy, I have become thoroughly convinced that there are no known varieties of the olive that have any claim to more freedom from the attacks of insects than others. It all depends upon the location, soil and climate. All the authorities are in perfect accord on this subject, so I think Mr. Flammant has simply jumped at conclusions in order to sell his trees.

Mr. Flammant goes on to say that the "smaller the fruit the finer the quality," and takes viticulture as an example. In viticulture this is certainly not true; and when I read the statement out of Flammant's circular to some of the eminent viticulturists of France and elsewhere, they either laughed or said "he is a fool," so I don't think the argument holds for olives. In spite of the glowing description of the Picholine (for sale by Flammant) and the evils of the Mission variety as he sets them forth, I do not advise you to plant it. From my California experience and European observation, I think it would be a grave mistake to make to plant Picholines instead of the Missions. The Mission does well in California, as is proved by long experiment; its oil is both abundant in quantity and superior in quality; its pits are usually empty, and one of the greatest troubles in making fine, delicately-flavored oil is thus removed. Why, to-day, at all the oil schools, especially in Italy, and the large oilmills, one and all are trying to invent machines for crushing the fruit without breaking the pits. When I tell them that in California we have a variety in which there is generally no kernel, they all say, "Oh that it were so with us!"

Another thing I was struck with in Europe, and that is the great irregularity of the crops. The Mission is without any doubt the most regular bearer I have ever met with. Besides its facility of adaptation, its great recommendation is the delicacy of its oil, and the fruit when picked is very good. To speak of supplanting what you know to be good with something you know very little of, and that little rather doubtful is a mistake that I cannot bring myself to think any one would make, especially with all the varieties in the world, but I do hope that the people of California will not be led astray by the publications of Mr. Flammant, and cut down the Missions.

Thus far I have been unable to find any variety that resembles the one in question in the least that resists the cold. On the contrary, all come from the hottest parts of the region de l'olivier.

In conclusion, then, the Picholine proper (see synonyms) is a large, fleshy olive grown wholly for pickles, its oil being of very poor quality, and very small in quantity, while none of the savants or practiciens ever heard of a Picholine of small fruit grown for oil. From what can be learned, the California Picholine is the Dendiverdi, a variety of very secondary importance that exists on sufferance only. So far, then, as the question of supplanting the Mission or other varieties goes, it would seem to be an act of folly.

ARTHUR P. HAYNE.

[We regret the sharpness of these writings. A gentler tone and less direct accusation would have served the purpose better. However, the points involved—to wit, the origin and value of the Picholine—are very important in this State and are legitimate subjects for discussion.—ED. PRESS.]

California Olive Oil in New York.

Not long since the R. N. Y. expressed a doubt about the feasibility or possibility of buying any pure olive oil for culinary purposes, owing to the very general adulteration of that product with cotton seed oil and other adulterants. Mr. Gardiner, of Gardiner & Delafield, this city, gave us a chance to sample different oils.

"How many gallons of so called olive oil are imported to this country annually," said *The Rural*.

"About 800,000. Of this vast quantity, probably 200,000 gallons are pure and the remainder more or less adulterated. At least that is a conservative estimate."

"Is not some of the oil that is pure when imported adulterated after it reaches this country?"

"I presume it is."

"Well, then, if 600,000 gallons of adulterated oil are imported, and a part of the 200,000 gallons of pure oil is adulterated after reaching here, is it any wonder that we find it difficult to get pure olive oil!"

"Certainly not, and I am heartily with you in your efforts to put down the sale of adulterated goods. I only insist that we sell only pure olive oil, unadulterated oil. Every invoice is tested by chemical analysis before it is put upon the market."

"Don't you think the consumption of oil would very largely increase if the genuine article were more easily procured?"

"Without a doubt. The Americans as a rule are not large consumers of oil, but the percentage of those who use it is growing. The Italians are the largest consumers. They buy it by the gallon and use it as freely as our people use butter and in much the same way."

"Where does most of the imported oil come from?"

"Probably from Leghorn, Italy. There is not as much French oil imported as Italian."

"What about California olive oil?"

"California is making a very fine oil, but as yet the bulk of it is consumed at home. There is a little sold in New York and some in Chicago, but the amount is not yet great. The olive growers and oil makers of California have a compact organization and hold yearly conventions. They have strenuous laws against adulteration and do not attempt to sell their oil in competition with oils of a lower grade. They are enabled to keep up the price, as their home trade takes nearly all their production. Mr. Ellwood Cooper, formerly a large olive grower and the founder of the olive oil trade of California, says there is more pure olive oil eaten in Santa Barbara than in the city of New York. Would you like to taste some of the oils?"

The *Rural* man thought he would and three samples were set before him. Two were of Italian oil and one California, and all were unquestionably pure. The California oil was of a lighter shade than the Italian.

"Well, now that you have tasted them," said Mr. Gardiner, "give me your opinion of their quality."

"Well," said the *Rural* representative, "They are all good but I like the California oil best. They all have the distinctive aroma or bouquet of the genuine article, but the California oil has more of the nutty flavor and is more to my taste. It is, also, seemingly more fruity and not so greasy."

"That would be my taste also," said he, "but it is not yet the taste of the general public. Many of them prefer an oil so refined and filtered that it has lost all flavor and is simply a delicate, rather neutral grease. All the foreign oils border in this direction, because they are made to suit the demand. California is destined to become a great producer of olive oil, but it takes time. Meantime we must use the product of Italy or France—preferably the former."
—*Rural New Yorker.*

THE FIELD.

Gophers and Moles.

The subject of this article is of interest to farmers and fruit-growers who are only too conversant with the destruction caused by the pocket gopher; while moles, though useful in their way, are constantly irritating the owners of lawns and gardens by piling up mounds or digging under choice plants.

The order, Rodentia, contains mammals which have the front or incisor teeth remarkably developed for gnawing, while the canine teeth are absent. In this order occur the rats, mice, squirrels, porcupines, rabbits, hares, etc., and last but by no means the least, the gophers. Of this gopher family there are several genera and species. We have in the middle States a little fellow called the 13-lined gopher (*spermophilus tridecem lineatus*), and also the gray gopher (*S. beecheyi*) which is so common on the coast, and called the "ground squirrel." In California this gopher annually destroys thousands of bushels of wheat. The pocket gopher is represented by many different species in North America, but the one we have to especially consider is *Thomomys bulbivorous*. It is very common in many parts of California and Oregon. Its front teeth are strong and chisel-like, especially adapted for gnawing. On the sides of the face are capacious cheek-pouches which give the animal its name. These pouches or pockets undoubtedly offer a means of transporting its food. I have never found absolute proof that the earth was placed in them, though this is stated by some one to be the case.

The depredations of this pest are very extensive. They

are especially partial to the tender roots of fruit trees, and when carrots, potatoes and other garden truck are in the ground, it is impossible to tempt them with poisoned tid-bits since they find attractive food in varied abundance.

One may plainly see upon whatever any rodent has been eating, the marks of the chisel-like teeth referred to above.

MEANS OF KILLING POCKET GOPHERS.

I am convinced from experiments that in the winter season when the root crops are out of the way a small piece of potato into which powdered strychnine has been introduced, and put down the hole will kill many. Frequently the fragment of potato will be thrown out with the dirt, but more often its nonappearance and the cessation of gopher work indicates that the poison has been effective.

I have saturated a wad of cotton half the size of one's fist with bisulphide of carbon, and thrust it down the hole, and closed the aperture with sod and earth. This remedy is extensively advertised for the gray gopher, or so-called ground squirrel. We have not tested it upon the latter, and lack absolute proof of its efficiency in the case of either pest. This agent is extremely volatile, and if used in porous and comparatively dry soil a large portion of the gas would doubtless escape.

I have tried the sulphur gun, a mechanical device for forcing sulphur fumes into the burrow, and although I cannot positively assert that it killed a single gopher, it has certainly stopped their digging, and may have killed them.

A shot-gun is very effective, but the sportsmen are very likely to see the game when they have no gun.

We have specimens of all the gopher traps sent to the experiment station to be tested; all are highly spoken of (by the manufacturers) and many are endorsed by persons of high authority. Then I have tried trapping, patiently and carefully, and have to report failure, although a few gophers were caught. I often have found the trap covered with diggings, or, perchance, showing on their points a few hairs left by the vigorous Oregon pest. Traps may do better in California, but if so, the Oregon gopher is made of sterner stuff than his brothers to the south of us. Recently a gentleman loaned me a so-called gopher-gun, of simple and cheap construction. It has killed every gopher for which it has been properly set. Certain important points are to be observed in its use. The wire, or trigger, should have the point covered with a small cork or a bit of wood which will receive the pressure of the earth when pushed ahead by the gopher. The covered point of the wire should be in the center of the hole, near, but not on the bottom, that it may be perfectly free to slip backward. The gun is discharged by a percussion cap. A very small load of powder, say 2 drachms, and of shot, ½ oz. (we use No. 3) is sufficient. Leave the hole open. The gopher literally commits suicide by shooting itself. I have recently purchased a new gopher and mole trap which is said to be well adapted to the purpose. One gentleman reports having killed 114 with it in a few months.

The order to which moles and shrews belong is called insectivora, referring to their insect-eating habits.

In moles the snout projects some distance over the mouth, and the bones of the fore limbs are very strong. The especial feature of the skull is the very sharp-cutting and uniform teeth. They are adapted for gnawing. The mole should not be charged with eating carrots or potatoes or the roots of plants. The teeth marks on those injured objects are plainly those of the rodent tribe.

In a number of moles' stomachs examined no vegetable food was found all contained worms or grubs, or other insect larvae. In a few I have personally examined this spring I found nothing but earth worms.

But one says: "I know moles eat my peas," another says: "I have found moles burrows leading through my carrot field and have discovered pieces of carrots in the burrows plainly gnawed." This may be true, but there are species of meadow mice (*genus Arvicola*) which are known to use the burrows of the mole for an easy passage to their food, and these are probably the depredators. As for moles eating peas, I claim that they are befriending us by destroing insects or worms near the peas, and if the gardener is certain that the peas are being eaten, then he must lay the charge at the doors of another, doubtless some member of the *genus Arvicola*.

It is true moles are a nuisance, though we often malign them, forgetful that while they are burrowing in our lawns they are in search of grubs which injure the grass. But man having decreed that moles are pests, the question arises, how are we to combat them?

We see many ridiculous suggestions in agricnltural (?) papers regarding the destruction of moles. One man says, poisoned corn, another, poisoned potatoes, and another recommends the digging of deep holes through their burrows, into which they will fall and be unable to extricate themselves.

Regarding poisoned corn or any vegetable substance to kill moles, I say, "You cannot do it." Further, anyone who has been a witness of the rapidity with which a mole will burrow out of sight, will put no faith in the post-hole theory. These mistakes have doubtless in many instances, arisen from the fact that gophers and moles had been confounded.

We have tried a number of remedies for moles and only one proved satisfactory. The sulphur gun mentioned above has been used, and it evidently drives them away for a while, and one may possibly kill a few in this way, but their burrows are so extensive and offer so many opportunities for the escape of the fumes that this can hardly be claimed as a remedy. Bisulphide of carbon is not efficacious for the same reason. Moles are very apt to work early in the morning, between 5 and 7; again, about noon; and again, about 3 or 4 in the afternoon; and we have speared a number by thrusting a four-pronged fork through their soft mounds at the moment they are engaged in throwing them up. While this is effective, the fact that they are erratic in their hours of work, makes watching for them a rather irksome task. I sunk a five gallon tin can in course of runway, (it having been highly recommended), and covered up the hole with a board, sod and earth, but caught no moles. I have used the various traps, but with no success, with one exception.

Of the moles of the United States there are about five species, but these do not differ particularly from each other in essential characteristics. F. L. WASHBURN,

State Experiment Station, Corvalis, Oregon.

RURAL IMPROVEMENT.

Wayside Mail Boxes and the Ten-Block System.

Written for the RURAL PRESS by A. L. BANCROFT.

The ten-block system of numbering country houses was developed and announced about two years ago. It was fully explained in numerous papers at the time. It has commended itself to the best and most progressive element among the people having rural tastes and desiring rural advancement and it is working to the front.

Contra Costa county, in whose interests it was worked out, has officially adopted it, and Postmaster-General Wanamaker has become interested in it, in connection with free rural mail delivery, and recommends it for general adoption throughout the country.

Briefly stated, the system is to have all the country roads bear distinctive names. The roads are measured and each mile is divided into ten *imaginary* blocks, having a frontage only, upon each side of the road, of 528 feet each. Two numbers are assigned to each block, one to each frontage; the odd ones upon the left and the even ones upon the right. All houses having *entrances* in a block bear the number of that block. When there are more entrances than one in the same block, which will rarely occur, the first one has simply the block number; all others have the same number followed by distinguishing letters, 698, 698a, 698b, etc. By dividing the house or entrance number by two and pointing off one decimal the distance in miles and tenths from the starting point of the road is given; thus 698 indicates 34.9 miles. The advantages of this system are numerous and great, the most prominent one probably being that is *permanent* This has been shown in the articles already published, and it is a satisfaction to know that the advantages are being generally recognized.

In connection with the free delivery of mail matter to country residents, a feature or plan, based upon the ten-block system, is here outlined and offered for the consideration of the postal authorities and the public.

For the country postman to go to the very door and ring the bell of every house for which he may have mail matter, over a section containing say 10 or 12 square miles, on some trips going several miles off his direct course and at others not doing so, must certainly require too much time and would be too costly to be practicable. In little England, where the houses are closer together than in our newer America, it is somewhat different. If, however, *mail roads* or delivery routes could be established, the postman with his horse and cart could travel over 20 or 30 miles of them daily, rendering the service over the same road every day or every second day, and deposit the mail in mail boxes placed along the road, quite satisfactory service could be rendered, which would be of great benefit and would not cost too much when the residences were reasonably near to each other.

The boxes to receive the incoming mail should be placed by the roadside and be known by the block in which located and be so marked, and letters, etc., could be addressed to the particular box, as, for instance, Mr. Geo. Reed, Mail Box No. 41, Granville Way, Walnut Creek, Cal., which would soon become abbreviated to M. B 41, Granville Way. The keys for each mail box should differ from those of all other boxes and all who have their mail addressed to a box should be able to obtain a duplicate key through the postmaster at the center of the delivery route. The postman himself would not require a key. The boxes should be of different sizes and should either be paid for by the people or they should make a deposit on them and be responsible for their safety. They should be placed at all crossroads and at the entrances of all neighborhood roads, or, as they have been named in Contra Costa, "locals," and at other points along the route where they would accommodate a number of families. Neighbors living off the mail roads could arrange among themselves than any one going to a box for the mail should also bring all the mail and deliver that belonging to the houses which he would pass on his way home and hold that for those living beyond him, or they might take turns in bringing the mail from the box for an entire neighborhood and thus establish, as it were, a private branch of the main delivery route.

The postman as he passes along and deposits the incoming mail in the boxes should sound a bugle-call which would give notice to all within hearing that the mail had been delivered. Notices that registered letters had been received could be placed in the boxes with the mail matter, when the persons so notified could go to the postoffice for them. The boxes and openings should be large enough to receive newspapers, books and all packages which are allowed to be sent through the mails; or the top might have a hinged lid which the postman's key would unlock for the insertion of the larger packages. It might, perhaps, be considered better to have the incoming mail deposited in the box only by means of the lid at the top, and have only a very thin opening for local notes, in order to prevent possible errors with the outgoing mail and for greater security.

By an arrangement of the service in this way, the distance to be traveled each trip by the country postman and the service to be rendered would be uniform, and the length of time required to make the trip would vary only with the condition of the roads and the freedom with which the horse moved along.

Side by side with each box for the incoming mail should be placed one for the receipt of the outgoing mail, or the two be combined into one box. The postman only would have a key to these boxes. He would unlock and collect the outgoing mail as he passed along the roads making his delivery. These boxes would be useful among neighbors, and many a mile of travel would be saved by depositing in his box a note for the farmer who lives a mile or two back in the hills.

Some of the important points of difference between delivering the mail at the door or depositing it in the wayside mail-boxes are these: When the postman on one trip takes the mail for one hundred families, ninety-nine trips are saved to the community, and a great public economy is thus effected. At the point where the postman leaves the road or his direct route and goes to a point, whether it is distant ten rods or a mile, and accomplishes only what a trip by any other one person (even a child) would accomplish, the economy feature ends, and very much better service would be rendered by the postman hurrying along his direct route, and not keep the people farther along waiting, while the countryman would go or send to the roadside for his mail. By this plan the people toward the end of his route would get their mail earlier and with much greater regularity, for if the postman (perhaps several times in the course of some days) was obliged to go off his route a mile or more, the residents would not know within an hour or two when the mail should reach them.

There is no reason why this service should be entirely free. Boxes or drawers at the postoffices are subject to a charge for rent. The Postoffice Department might furnish the wayside mail-boxes and charge a rental of $1 a quarter for one family or 50 cents a quarter for each family having a key when more than one receives their mail regularly at the same box. Or, all who prefer could have the exclusive use of a mail-box by paying the full rent for it when it could be located at their entrance and bear the same number as their entrance, in some cases more than one being located in the same block—41 and also 41a Granville Way, for instance.

Or, if this service was arranged by the country people who get their mail at the same or neighboring postoffices entirely as a private or neighborhood enterprise, the expenses need not be burdensome. If one man, cart and two horses alternating each day could travel over 25 miles of roads in one direction rendering this service, and on alternate days make a different trip of the same length, he would thus serve 50 miles of roads. Upon the basis of there being, on an average, four boxes to a mile, and the payment of $1.50 per box per quarter, or $6 per year, it would make a revenue to the postman of $100 per month, which should pay him fairly well for his time and for his horses and cart, and the expenses to the people receiving the service would not be excessive.

The postman might also act as expressman upon his own account, making purchases and doing little errands which would add something to his income and be a convenience to the country people.

The request for the bottle of horse liniment or pair of sheep shears wanted could be written out and placed in a conspicuous envelope addressed to the postman, which envelopes he himself would furnish. The money to pay for the articles wanted, together with the 15 or 20 cents for the postman's services, could also be placed in the envelope and be deposited in the outgoing mail-box, or be charged to the purchaser by the dealer, and after the next trip he would find his package in the incoming mail-box.

One of the San Francisco mail-collectors informed the writer recently that between 6:40 A. M. and 4:30 P. M. he drives 340 blocks and makes about 200 stops at boxes. For this service with his horse and cart he receives $108 per month. He uses regularly but one horse, but the poor old fellow looked as though his mail contract was too heavy for him. The collector is obliged to hire a second horse occasionally, so that his net earnings are but about $100 a month. The 340 San Francisco city blocks would probably be about 25 to 28 miles. The streets are paved, but are hilly. In the country, with good roads, one man, cart and two good horses alternating daily should serve 60 miles of roads every second day from one year's end to the other.

These mail-roads should be selected with two objects in view—one to locate the route in the most thickly-populated part of the country where the service would be of benefit to the greatest number of people, and the other to locate them upon the most important *through roads*, for the influence of the mail delivery upon the roads traveled by the postman must certainly be to make them the very best in all the country. Also, if free-mail delivery in the country should be conceded only where the roads have been named, measured and blocked off, and the roadbeds themselves have been put in proper condition, it would be a constant and powerful influence in favor of good roads, as as well as rural progress from one extent of the country to the other.

Aloha Farm, 41a Granville Way, Walnut Creek, Contra Costa Co.

THE APIARY.

Bees and Honey.

There is but very little honey reported upon the market this year, either in comb or extracted. It would seem that if there is as much adulterated or imitation honey made as some people would have us believe, the manufacturers of it would keep the market well supplied.

At the annual meeting of the North American Beekeepers' Association, Prof. Lintner, State entomologist of New York, said that there was as yet no conclusive proof that spraying with arsenic killed any bees.

At the meeting of the Ontario Beekeepers' Association, the president claimed that nearly 500,000 pounds of honey are now annually produced in that province, and that they were furnishing a wholesome, cheap food, not a luxury, as there is more nutriment in one pound of honey than in five pounds of fat pork. He has kept from 10 to 150 col-

onies, and his average is about 50 pounds to a colony, though he has taken 100 pounds. He winters his bees in the cellar, and the average loss of colonies is from two to five per cent.

The Foul Brood Inspector of Ontario reported visiting 197 apiaries, and though there must have been over 1000 cases of foul brood, but did not examine all hives where he found the disease, simply instructing the owners how to treat it. Where he examined them a second time, was generally well pleased with the success in ending it, but had to have six hives burned.

The Legislative Assembly of Ontario passed an act last spring, which provides that no person, in spraying or sprinkling fruit trees in full bloom, shall use "any mixture containing Paris green or any other poisonous mixture injurious to bees." The evidence taken was strong in advocacy of the idea that such spraying would kill bees, though no one was sure of it, and also that just after the petals of the blossoms fall would be quite as effectual in destroying insects.

Prof. Cook in Bee Culture protests against spraying trees with arsenical poisons while they are in bloom, and says serious losses of colonies and brood have occurred in some cases in Michigan and Illinois.

A writer in the Bee-Keeper's Guide says that he thinks his bees need salt as much as the horses, hogs or cattle, and he keeps a supply of water that has been slightly salted near them, and they prefer it to fresh water.

Cuban honey comes to the United States without duty. It is of fine quality, and American honey producers have filed a protest against the free entry with the state department.—Cultivator.

THE STOCK YARD.

The "Show Condition" in Live Stock.

TO THE EDITOR:—Mr. Jas. M. Hunter, of Bakersfield, takes exception to some of my comments on the cattle at the State Fair, especially in regard to the *condition*.

I am fully in accord with the principal advocated by him in regard to pampered show stock, never having been an advocate of that system of excessive feeding, which is enfeebling in its effects upon nature. All who go to the the fairs to see the live stock, however, expect to see show cattle in show condition, which need not mean that a beast be uselessly fat. Mr. Hunter does not say that he was at the State Fair; if he was he would not see any excessively fat Shorthorns, excepting, perhaps, the sweepstakes bull, which I think has been overdone, probably not to the impairing of his constitution, yet, somehow, he shows a want of that activity in his movements, which one likes to see in a bull that is being kept at the head of a herd.

I am well aware of the rule in regard to excessive fatness, that Mr. Hunter refers to, but whether it has ever really been put in force at any of the principal shows or not, I cannot say. I do know, however, that in California the fattest animals have generally taken the premiums, shape and other things being equal, and it is probably so with beef breeds, in nine cases out of ten, the world over.

The rule in itself is all very well, and if it could be enforced would do good, but the great difficulty with regard to it has been, and is likely to be, where to draw the line between fatness and excessive fatness, and who is to do it?

The discrimination, should any be thought expedient, will rest with the appointed committees of award, unless special committees are purposely appointed.

That much has been done to injure the reputation of some breeds of cattle by people buying pampered animals and failing to keep up the high-feeding, there is no room for doubt. In cases of this kind it is unfair to lay all the blame on the *breed*. If people buy hothouse plants they are expected to keep them in hothouses, which, both in principal and in practice, applies with equal force to animals.

In saying that Mr. Hill's Lucerne Duke was not in show condition and that he had evidently come right off the lucerne pasture was not said with any idea of detracting from the merits of the bull, and I did not for a moment suppose that anyone would construe it in that way. For certain reasons, connected with the breeding of the bull, I did not feel at liberty to say much, therefore I contented myself with stating what I personally knew to be a fact, and one that stands rather to the credit of the animal than otherwise.

For the same reason, I left unnoticed, some may think unjustly, the same owner's Fidget 8th, one of the best and certainly one of the most useful-looking Shorthorn cow on the ground. She, too, had come off the lucerne pasture. Her condition was good; in size, shape and style, if you please, she was equal to any, and what is not of less importance, she carried one of the best-shaped udders I have ever seen. This cow was exhibited in the class of three-year-old cows, but was not even looked at by the judges, though among onlookers, during the second week of the fair, she had more admirers than any other cow on the ground, these being attracted by her beautiful head and sweet countenance, short legs and well-rounded ribs, broad, square hind quarters and thighs, the latter being well and squarely filled in with her splendid bag of milk, which made itself felt in the Shorthorn milking test.

To return to the subject of feeding and condition, I copy a paragraph from my report of the Petaluma fair, which, I think, clearly defines my position in regard to the matter:

> Thus it is with animals that have for some generations been dependent on having food provided for them, it becomes a fixed habit in the breed, whatever it is, therefore, those who buy good, well-bred cattle of any breed, that have this habit bred into them, should, by careful selection in breeding, and generous keep, (not pampering, as for obesity) endeavor to maintain that habit. It is a profitable one, in that it gives a good return for food consumed, which is the end aimed for by all good breeders.

Now I hold to the theory, which is proved good by practice, that good pasture on good land is the cheapest and best food for growing up a strong, useful and healthy race of cattle; but there are few places where the pasturage is so good all the year round that it does not need to be supplemented by some sort of hand-feeding, if it be nothing more than good hay, to keep the cattle in a thrifty and growing condition the year round. The continuous growth of animals with a steady gain in weight, from birth onward, is the breeder's main stay. By feeding with this object in view only can he make a success of bringing animals to early maturity for the butcher, while a steady and vigorous growth in young cattle intended for the dairy will bring them into profit a year earlier than is the case with young stock that are allowed to lose in winter the flesh they have gained in the preceding summer, which is very often the case under the ordinary circumstances in which farm or dairy stock is wintered.

We sometimes hear people say cattle can be judged better when in low condition; "one can see the frame better," which is true enough. He can also discern between a coarse-boned and a fine-boned beast, along with certain indications of thriving qualities, judging of these in a great measure by the hair and handling, which, if soft and pliable, with the addition of a placid, contented look in the eye, may generally be depended upon as signs of thrift and well-doing in an animal. These will for the most part be found in the finer-boned animals as it is very rarely that a coarse-boned one is a profitable feeder.

With a lean animal it is something of guess work as towhat it is likely to do to say nothing of what it *will* do in the way of taking on flesh, but with one that is fairly fat, and if ripe for the butcher so much the better for the purpose, one can tell what it hasdone, and see how the flesh is laid on and, to a certain extent, judge of the quality by the way itis put on. If the thighs are thick and heavy, the loin and ribs well and evenly covered, the crops or chine broad across, with a good heart girth below it, making that part as nearly circular as it is possible for it to be in an animal with flesh distributed evenly and smoothly over the whole carcass, then we know there is a good butcher's beast, whereof the flesh is witness.

We see what the animal has done and by that may form an opinion of the capabilities of other animals of the same blood and breeding. That is what we want to do when we go to a cattle show where we expect to see a gathering of the choicest cattle of the country. We want the breeders to let us see what some members of their herds are capable of doing in the way of making a profitable carcass of edible meat, without grossness at as early an age as is compatible with the production of good beef.

Early maturity is the order of the day in these times of low prices for it is well-known amongst practical feeders that the cost per pound increases with the age of the animal.

Let us have better cattle if fewer of them. Better stock means better feeding, and vice versa.

YOUR OWN CORRESPONDENT.

THE DAIRY.

Regulation of City Milk Trade.

At the last meeting of the San Jose Chamber of Commerce, Dr. E. A. Clark read a paper entitled "Milk," as follows: "In obedience to your request to prepare a paper in reference to the milk-supply for this city, the following is respectfully submitted: I have had no time or opportunity to consult authorities or statistics and, therefore, simply present a few plain statements. Milk is one of the most important foods. It is a necessity to rich and poor alike. It enters every household, is on every table and is used by nearly every human being in civilized life.

"Milk is exceedingly sensitive to all electrical and meteorological changes. It absorbs with great avidity all ill-smelling odors, all impurities brought near it, and thus becomes a powerful factor in conveying and spreading disease. Many epidemics of typhoid fever have been directly and indubitably traced to milk from cows which drank from water poisoned with human dejecta, which contained the typhoid-fever bacteria from typhoid patients. It has thus been shown that the exciting poison of at least one disease can be conveyed through the system of the cow to her milk and cause disease in human subjects. This demonstrates that danger to consumers of milk lurks, not only in impurities near to milk after it is drawn from the cow, but also in the very food and drink which constitute her pabulum.

"What do these facts teach us? Certainly the lesson is easy and simple. The utmost care and caution should be used in preserving this universal article of the people's food from all sources of contamination.

"How shall this be done? Shall we continue to leave the matter in the hands of those alone whose pecuniary interest it is to make the most money from the least outlay of labor or expense? Not only is milk subject to contamination from the food and drink of the cow and from proximity to impurities which may be absorbed by it, but we all know that it is frequently adulterated, in fact almost manufactured outright. The very water with which it is often diluted may come from some impure source and poison whole families, to say nothing about drugs and mixtures used to simulate genuine milk.

"What then does common prudence point out as a public necessity? The county and city authorities should establish a most thorough and rigid system of inspection of all dairies which supply milk for our city and suburbs. Every place where milk is handled or kept should be absolutely clean and pure. The sources of water-supply should be thoroughly examined from time to time. The food given to milch cows should be subject to rigid inspection. Samples of milk should be frequently analyzed. None of these examinations should be made at particular times, but at unexpected and irregular intervals.

"There should be some kind of permit or license issued to those engaged in the milk business—of course, with very little cost to them—without which no one could engage in it. When any one is found to be diluting or adulterating milk, or permitting the use of impure water or food for milch cows, their right to vend milk should be taken from them. I am not, in this short paper, attempting to enter into details, only briefly trying to indicate a general policy. Next year we may be visited by the Asiatic cholera. We should use every reasonable precaution to avoid this scourge as well as all other diseases. If any legislation is needed to give our county and city authorities the necessary power in this matter it should be procured at the next session of our legislature. This is a very important matter.

"There is a constantly-growing complaint in all our large cities about milk impurities and consequent danger to the health of all classes, but especially to the children. Our city is steadily and rapidly assuming the proportions of a large inland metropolis. Shall we not now take steps to protect our children from disease and death? With cleanliness at home, clean streets, well-flushed sewers, pure water, pure milk and other food we can snap our fingers in the face of all zymotic diseases and go steadily on our way rejoicing in good health, the necessary basis of all human happiness."

Dairy Notes.

The sooner the milk is strained after it is drawn from the udder, the better the proportion of cream obtained, and the better the cow is for butter purposes the more important this becomes.

Those who like sweet-cream butter are usually willing to pay a fancy price for it, but it does not possess the keeping qualities of butter from well-ripened cream, and should be quickly sold and quickly consumed.

The dairyman who makes good butter should never send out any without putting his name upon the package. At first the butter will give him a good reputation, and after a while his name will recommend the butter. But he must be careful to have all that he marks up to his usual standard, and sell all that which is a little "off" in flavor or other qualities for what it will bring without the name.

Milk that contains 13 per cent of solids is called rich milk, but if a very large part of these solids came from the outside of the cow or from the stable floor, we should call it "too rich for our blood," and take a thinner article.

An exchange says that "three beef animals can be grown and disposed of while one butter animal is being fully developed," which is true, as good steers can be fitted for market at two years old, while the butter cow seldom reaches her best until at least six years old, although she may have been paying her keeping for at least three years before that. But after that age it takes no more to make 300 pounds of 25-cent butter than it does to make the same amount of four-cent beef. There is where the profit of the butter animals comes in, or should do so if rightly managed.

Some of the agricultural writers are advising the farmers now to "cull out and sell all animals that it will not pay to grain feed," but we believe it will pay to grain feed the animals fit for food, no matter how old, if they are healthy and thrifty. If we had one that we thought it would not pay to give grain to before selling, we should prefer to sell it to the fertilizer manufacturers or dealers in dead animals than to a brother farmer, unless we had a spite against him on account of some previous trade, and wanted to get even. That would be wicked, we know, but revenge is sweet.

If the man who raises his own heifer calves does not have good cows, it is his own fault usually.

Poor butter requires a good salesman to dispose of it, but good butter will find a market for itself. A breeder of high-class dairy cows lately set prices upon some of his surplus stock, but before the buyer accepted his offer he was induced to have the milk product analyzed. The result astonished him and led to a complete revision of prices. One seven-year-old cow which he had placed at a low price was found capable of yielding 16 pounds of butter a week, and another cow gave him a similar surprise, while one that he thought more valuable than either could not yield seven pounds a week. Test them before buying or selling.—Cultivator.

A Rich Fruit Section.

SAN FRANCISCO, Oct. 15, 1892.

TO THE EDITOR:—One of the richest fruit sections in the State is the locality surrounding Hanford, Tulare county. Its raisins are famous; its peaches, pears and, indeed, all kinds of fruit, are superlative in beauty, size and richness of flavor, and command the highest prices at home and abroad. On the Templeton vineyard, near Hanford, Mr. H. P. Thornton, one of the owners, picked a bunch of grapes last month which tipped the scales at five pounds. they were the Muscat of Alexandria variety, and he has had the cluster carefully preserved and will exhibit them at the World's Fair next year. The grapes here grow to large size, some measuring over three inches in circumference. Three peaches were picked by Mr. Thornton the other day from three-year-old trees, ranging in weight from 17 to 19 ounces each. Is it to be wondered that California is proud of her fruit interests, with such a showing? VISITOR.

THE San Francisco lumbermen interested in controlling the cargo output of the coast have prepared a schedule of the amount of lumber each mill may cut under the pool arrangement. The schedule is based upon the output of 1891, and is unsatisfactory to most of the small millowners, who may be subsidized, although it is not the plan now to subsidize mills. The new schedule, if made, may, instead of subsidizing, increase the output of small mills. It is held that $9 per 1000 can be secured just as readily as $7 per 1000, if the output can be controlled.

THE Petaluma silk factory buildings have been completed.

The Home Circle.

The Mesopotamian Well.

GEN. XXIV.

Written for the RURAL PRESS by LILLIAN H. SHUEY.

I will tell you a beautiful story,
A story so very old;
You'll say you have heard it a thousand times
As soon as my story's told.

Way down in Mesopotamia,
Where the walls of Haran stood,
There lived the Syrian household
Of Bethuel and Laban good.

Within the city's protection
Their home was roomy and large;
With room for the friendly traveler,
For his beasts and men in charge.

And the light and joy of that household
Was one who was very fair,—
The kind-hearted daughter of Bethuel,
With braided and shining hair.

She was wont to go at evening
With the women strong and tall,
Who went to the well for water,
Outside of the city's wall.

One night, with her pitcher brimming,
Up from the well's deep pool,
She bore on her head, upbalanced,
Her burden, fresh and cool.

And, lo! By the well there waited
A stranger of lordly grace
With servants, and camels, loaded,
That knelt at the drinking place.

And the stranger ran to meet her,
And said, "Let me drink, I pray?"
She lowered her pitcher kindly,
"Thou'rt welcome, my lord, this day."

Then she hasted and emptied her pitcher,
"Thy beasts, I will draw for them;"
And she hasted and ran to the water
And drew for the camels ten.

And the stranger marveled greatly,
For he was seeking there
Just such a maid of the Syrian house,
And she was his answered prayer.

He said, as he placed on her brow and hands
The golden tokens bright,
"Whose daughter art thou, I pray thee?
I would lodge at thy house to-night."

Then the maiden ran to her mother's house,
With the jewel on her head,
And showed them her golden bracelet,
Then her brother came and said

To the man, "Come in, thou blessed stranger,
Wherefore standst thou here?
We have room and straw for thy camels,
We will give thee friendly cheer."

They came and ungirded the camels,
And water was brought for their feet,
And they of the household hurried
And placed them meat to eat.

"Nay, I will not eat," said the stranger,
When the food they gently pressed,
"Till I do my master's bidding;
For my master is greatly blessed,—

For the Lord hath given him servants
And silver and gold, and all
The flocks and gold and servants
To Isaac, his son, will fall.

I am Abraham's servant,
And he has made me swear
To bring him a maid from his father's house,
A wife for his son and heir.

Thou art my master's kinsmen,
And *this* is the maiden fair,
Who gave me to drink and my camels
In answer to my prayer.

Now, deal with me kindly and truly
And my labor of love is done,
Will ye give me this lovely maiden
For a wife to my master's son?"

And they said, "As the Lord hath spoken
And brought thee to this place;"
Then Abraham's servant worshiped
And bowed himself on his face.

And he took from the camel's burden
Silver and jewels rare;
Raiments and precious treasure
He gave to the maiden fair.

So her kindred kissed and blessed her
At the early dawn of day;
And, her nurse and damsels with her,
She rode with the man away.

This is the pretty story
The dear old pages tell,
Of Rebekah, the Syrian maiden,
At the Mesopotamian well.

California Poppies.

Beside the sea, above, below
The wrinkled sun-burnt crags that bar
The ocean's onset like a foe,
And wild as wind and waters are,
The careless yellow poppies grow.

As tremulous as stars that glow
In fairer fields of light afar,
Cliff-born, but beautiful, they blow
Beside the sea.

O'er many a rain-worn rent and scar
Their rootlets tenderly they throw.
Nor storm nor solitude may mar,
Nor mists that wander to and fro,
The freedom that the poppies know
Beside the sea!

—Martha T. Tyler in Sept. Lippincott's.

Mrs. Lander's Property.

Written for the RURAL PRESS by M. PULSIFER.

[*Continued from last week*]

Mrs. Landers and Joe were late in rising next morning, for they had slept little over their scare. When the breakfast work was over they set about securing their valuables as best they could. Then came the house. The back door was fastened and wedged so that no one could shake it; the door leading to the diningroom was locked and the key tied to the knob, that it might not be pushed out and the door opened by any false contrivance; the other inside doors and windows were treated in a similar manner, but instead of tying the keys to the knobs they were taken out and the keyholes stuffed with putty, which Mrs. Landers said, "would sorter confound their wits, if they did get in." Lastly came the "big front door" and the gate; if it were possible to exert greater ingenuity upon these chief avenues of exit and extrance, it was done.

Mrs. Haply had arranged that Mrs. Landers and Joe should take lunch with them at twelve, and by half-past eleven they stood on the veranda waiting for Rufus who was coming in their carriage to take them to the Haply mansion.

"I say, Joe, don't you think *Rufus* and *Haply* is about the softest and most triflin' combination of names that were ever j'ined together? I do, an' when I think of 'em long, they make me sicker'n weak coffee!"

"Ma," says Joe very quietly, "I can imagine circumstances and events that would cause you to think more of the man and less of the name; suppose, for instance, that I was happily married, and—"

"Yes; then it is again the very thing I knew, and that miserable, shiftless name. Thank the saints and prophets, your pa didn't give me a name that my darter can pun on. Never in all my life—"

What it was we shall never know, for at that minute Rufus drove up with a splendid span of black steeds which Mrs. Landers said "jus' matched the driver," but the sight of which always softened Mrs. Lander's heart, for she declared they reminded her of the time "when John was a livin' and Joe a a little gal."

On the way up town, Mrs. Landers talked more to Rufus than was her wont; she even told him what she saw at the window last evening, and gave him her opinion, in full, of circus men, to all of which Rufus was so attentive that Mrs. Landers was quite happy and did not seem to remember that it was the first time she had permitted herself to more than pass the time of day with him in years.

"Mrs. Landers," ventured Rufus, "Joe has been taxing my credulity severely by telling me that you never before went to a circus. Is it true?"

"Mr. Haply, it is; and I'm of a mind that I oughter be in better business to-day than breakin' so honer'ble record in my old age."

"Why, ma, there is nothing dishonorable in the performances at a circus. I'm sure you will be be enchanted, and will not believe your eyes again for one month, at least."

"Neither do I believe, nor never will, them flarin' billposters with their antiluvian animils an' outlandish womin! Then, there's that ere Sheby and Sol'mon affair! Talk to me about the wisest man a holdin' up an infancy by the heels when he'd know sich doin's would cause appoplexic of the brain! But now that I've got started, I'm goin' to the circus jus' the same."

A few words about the Haplys may be in order here. The two families came to California together. Both were wealthy at the time, but Mr. Landers lost almost his entire fortune in the mines in less than ten years, and dying soon after, left Mrs. Landers and little Joe poor. Joe was a bright girl, and before she was fifteen found out what she was good for, and turned her discovery to account, as before mentioned. Mr. Haply died about the same time as Mr. Landers. His business had been in the mercantile line; he had prospered and left a large property. Rufus had a good business of his own as surveyor and civil engineer. The estate was settled up at once and the proceeds judiciously invested, leaving Mr. Haply Jr. free to pursue his own chosen vocation. Joe and Rufus had been raised together as playmates, and Mrs. Landers always liked him as a child, having about as much care for the boy as she had for her girl; but as he grew toward manhood and still retained his preference for Joe, Mrs. Landers' feelings apparently changed, and she had come to treat him with studied coldness. Rufus understood it all, but appeared quite unconscious, hoping the time would come when she would be herself to him again, for she was but acting a part. He had never given her the least offense, and memory told him that deep down in her heart she liked him, and so she did. Her two pretended aversions to him now were his name and his handsome presence, of which she never lost an opportunity of reminding Joe.

Joe Landers is a handsome blonde of twenty-eight whom Mrs. Haply admires and loves, and who would make many an arrangement of pleasure for the young couple if Joe would hear to it; but she does nothing without the full knowledge and consent of her mother, to whom she is very devoted.

I will pass over the circus, its effect upon Mrs. Landers and her quaint comments, and accompany the three back to Mrs. Landers' home.

As they came in sight of the house, Mrs. Landers remarked that "everything looked safe an' right." But the gate was open, and the dear old lady said kindly to Rufus as he assisted her to alight: "You must not go until we have gone through the house."

While her mother was unlocking the door, Joe was talking with Rufus; but not many words were exchanged before they were startled by a scream from Mrs. Landers, who speedily fell in a dead faint. Before Joe could reach her mother, Rufus had sprang from the carriage again, and without securing his horses, was at the side of Mrs. Landers, who was lying across the doorway. Joe would herself have been shocked, and might have fainted had she first looked upon the sight which met her mother's eyes. Everything in the room was turned upside down and inside out and the carpet torn up. This was the condition throughout the house. Every article they concealed was gone and some wearing apparel, including an elegant dressing-gown of Mr. Landers which his wife had thought too much of to part with. The Landers money was invested, and as they only had the interest, no great sum was ever in the house at any time, and this day none at all, for Mrs. Landers had it in her purse.

When she revived and again realized what had happened, she broke down and bewailed most piteously "the awfil calamity that had come upon her old age," and she told Joe she hoped "this ere circus would last a lifetime. But," broke off the old lady, "why don't you shout for the police, Rufus Haply, if you're a man? Joe, can't you do nothin' but walk round? Let me get out, I'll holler fire! murder! burglars! or anything else to 'rouse the people to the danger of their life and property!"

While Rufus did his best to console her mother, Joe *was* "walking around," but not aimlessly. She was ascertaining as far as possible, in short order, the number of articles missing for Rufus to report at police headquarters at once.

When Mrs. Landers saw Rufus about to depart, she informed him that he shouldn't leave the house an inch unless he solemnly promised to come right back and stay with them till midnight, for she would "never shut her eyes again until they lighted on them stolen val'ables."

Rufus promised but too gladly, whereupon the old lady kissed him just as she did years ago. It was so sudden and unexpected that Rufus still thinks it was a part of the bustle and disorder of that memorable occasion.

She called out after him "not to eat a bite at home, but come straight back and take supper with me an' Joe, fur I'm so cast down I'll not eat a bite unless you do. But the knives, forks an' spoons are all gone!"

These were her two first invitations to Rufus to come to their house, and he was rather dazed by the change that had come upon the old friend of his youth at last, and wondered how it would all end, and if it would vanish with the night.

"Joe, you take Rufus an' go round the house an' lock every door an' winder, and barrycade 'em besides; then you two set down and play chess, checkers or somethin' else, so I can look on an' pass the time, fur I feel terrible like and all broken up."

Mrs. Landers was instantly obeyed, and soon her first order was executed. A few minutes more and the three were seated at a small table, all seemingly interested in a game of chess; but I believe Mrs. Landers was really the one interested at all; not in the game, but Rufus. She sat very near him, and scarcely took her eyes from his face once. Between the moves he had told stories calculated to keep up the old lady's hope o. recovering her goods. Whether true or invented for the occasion does not matter; they were soothing, but some mysterious means led her to speak of her favorite aversion to Rufus, but she was careful not to be personal.

"Mr. Haply" (she never called him Rufus in these days when addressing him), "do you believe there's anything in names? I do. I'm jus sure there's names as prevents persons from bein' or doin' anything worth shucks!"

Rufus had been more than once that day inwardly convulsed with laughter, and at this unexpected outbreak of Mrs. Landers, he gave vent to his mirth and laughed until he cried. The old lady was surprised, and sat with dumb amazement pictured on her face.

"Yes, Mrs. Landers, there is much in names, as to sound and significance; regarding their influence upon character, I don't know. Many persons are of your opinion that the name makes or mars the individual. There is Madame Paul Minck, the Paris anarchist, and mother of two sons, who, if they live, should show how much there is in a name, and turn out to be heroes after their fond parent's own heart. The first was christened Lucifer Satan Vercing troix, and the second was to be known as Apottacus Blongin Revolution. How does that impress you?"

"I can't predict what the sons of sich a fool mother might be; but the hull thing makes me sick and tired. It's triflin' with Providence. I don't believe in common people havin' the liberty of names, no way. They oughter be taken from the Bible and given out by law; then there'd be no more fool nonsense about the bus'niss."

"Ma thinks Landers is immaculate and incorruptible. But she is mistaken. There is nothing in a name but—letters, and one may make a surprising difference. Just think what our name would be if an S or G were prefixed!"

"Joe Landers, I never seed your equal, to conger up sich onheard things! If anybody ever a'tempted to put them ar letters onto my name, I would sue 'em for libil and prosecute 'em to the end of time, there!"

Rufus was again thrown into a fit of laughter, in spite of himself, and arose, saying the hour was late and he must be going.

He was not allowed to do so until he had inspected the premises to assure Mrs. Landers that no one "was prowlin' round fur more plunder."

At half-past eleven the three stood at the front door, Rufus holding Mrs. Landers and Joe each by the hand, bidding them have no fear for the night nor doubt for the morrow, that all would be well.

Just then a light shone faintly through the inside blinds of one of the windows across the way.

Ah ha! Is that what you called haunted, Joe? Mrs. Landers, do you approve of my investigating that appearance?

"No! Don't you go near that ar evil place! It's the old one hisself, holdin' high carnivil with the powers of darkness!

Rufus did not believe in the mythical "old one," and said:

"Really, Mrs. Landers, I have a presentiment that some good may come of my going. Now you and Joe go in and shut the door until I return in less than ten minutes."

"Joe Landers, I always told you Rufus Haply was a fool, an' I'm just sorry now I hadn't told him so when I had a chance. Runnin' into infernal danger with his eyes open, a leavin' two women here alone to be killed! Oh! I wish he'd never been born, I do!"

"Ma, you are altogether inconsistent. You care nothing for Rufus, and yet you talk as though your sole dependence was upon him. I don't understand such contradictions of speech and conduct."

"Wal, I don't care what becomes of him. I'm jus' miser'ble and wish I had died when your pa did, there!

Rufus returned with big eyes and a bigger story. In one of the back rooms he saw, through a rent in some hanging at a window, five men squatting around and busied with various bundles, boxes and odd packages. He could not go on for Mrs. Landers.

Oh! my soul! have mercy on them ar sinners a handlin' my property! Give me somethin', quick' so's I can go an' confront the vil'ains face to face! They'll not deny it an' want no process of law. I'll just go an' take what belongs to me, an' others smart enough may do the same if they've got a speck o' sense."

"Dear Mrs. Landers, all depends upon the greatest caution. If your stolen articles are in the hands of those men, you must be guided by reason and listen to me, if you would recover them. I'll go at once to chief of police and give full particulars, then return to you and Joe, as you cannot sleep while this play is going on. I'm just in time

for the 12 o'clock car. Shut this door and lock it, and keep still. Good bye."

In half an hour Rufus returned, and in less than ten minutes more, six dark figures came rapidly down the street. Rufus went out to meet them and they all moved toward the house to be raided. Joe had difficulty in keeping her mother indoors, until the report of pistols broke upon the stillness of the night. The struggle between officers and thieves lasted some thirty minutes. Then a wagon was driven down from the corner where they had alighted, and besides the goods there were two prisoners handcuffed and three wounded men put into the vehicle, accompanied by two policemen, while the other four walked two on a side.

When the shooting commenced, Mrs. Landers went into hysterics, and eased her mind as usual.

"Oh! dear me! What have I ever done that I must come to sich times as these ere? Joe, I hope you will acknowledge now that them ar circuses are the old boy's own doin's. This ere thing all comes of Rufus Haply, an' I never want to set eyes on him again. I remember your pa told me I might live to see religious an' civil war, but I never dreamt of its comin' right to my very door! War and rebellion's what it is! I've not a doubt that that ar Sutag and Evins and the Daltons and them ar Mex'can brigonders, as they've been scouring the hull country for and couldn't find, is right here in that ar house, a hull grist and pile of 'em together! Oh! I do wish Rufus would come!"

The man Mrs. Landers saw pass the window the evening before the circus, had overheard all their conversation. Their house was entered by the front door, as everything indicated, by a false key, and locked again. The discovery and capture of the five men threw light on half a dozen burglaries of recent date in the town.

The house in which they were taken had been a place of storage for stolen goods, until otherwise disposed of. Search next day revealed a large quantity of miscellaneous merchandise, that was all recognized by its several owners.

Next morning Rufus came down in his carriage for Mrs. Landers to go and identify her property. Coming home, she said very plain but comforting things to him as follows:

"Mr. Haply, I don't deny that I hold you responsible for this hull a'fair. If you hadn't invited Joe and me to that ere circus, nothin' would'a been stolen; but if nothin' hadn't been stole, that ar pesky gang never would'a been found out, for under no other consideration than our house bein' burglarized, would I permitted you to spend a evening at our home, because I never intended to give you any encouragement as a son-in-law. But now, as you've proved what's in your name, as I always told Joe you would when you got a chance, I don't feel proper in standin' betwixt you two any longer; and now you may have it all your own way, exceptin' that you'll go to no more circus, and shall have nothin' to say about any names in the future. There!

A PRETTY PICTURE.—During the Mississippi Valley Suffrage Conference at Des Moines last week, the crowing of a baby made some of the audience turn their heads, and they saw a pretty picture. Mrs. Catharine Waugh McCulloch, a beautiful young woman lawyer, who is an active equal rights worker in Illinois, had brought with her to this conference her young son, a fine, bright-eyed baby, good-tempered and happy, but full of wriggle and finding it hard to keep still for a moment. As he waxed obstreperously merry in her arms, she had taken him to the window at the back of the hall, and was trying to hush his crowing, but without success. Outside the window, the folds of the great Wyoming flag were visible, waving in the wind over the heads of mother and baby. As we looked at them and remembered that the parents of that baby were both of them lawyers and both of them suffragists; that their marriage ceremony had been performed by Rev. Anna H. Shaw, and that the bride had gone to south Dakota for her wedding trip to speak in the woman suffrage amendment campaign, it seemed that several instructive morals might be drawn from that picture, especially for the benefit of those who predict the destruction of the home and the extinction of the race as a result of the acceptance of equal rights.—Alice Stone Blackwell.

LITTLE BROTHER—"Mr. Johnson, won't you go and stand before the window?"

Mr. Johnson—"Certainly, my little man; but why?"

Little brother—"Oh, ma says she can see through you. I want to see if I can."

YOUNG FOLKS' COLUMN.

Master Rudolph Bolensk.

Written for the RURAL PRESS by KATHERINE BRYANT NOLAN.

Rudolph Bolensk sat upon the front seat of the yellow-wheeled wagon belonging to the firm of Bolensk & Polaski, Los Angeles. He held a beautiful bouquet of Madame Laurette roses and dark red carnations in his small hands. His wide-brimmed, brown straw, sailor's hat was placed carefully between himself and his friend, Jim Whitby, and a fine halo of little flaxen curls set off his delicate face and blue eyes.

Rudolph's full attention was concentrated upon the delicate nosegay. He had received special instructions regarding the proper manner of holding it, lest the beautifully ornamented foundation of the flowers should become crushed. Josie Myers had given the bouquet to him with many qualms, for she was quite sure that the nosegay was doomed to destruction were Master Bolensk allowed the handling of it.

Josie was the girl who took the orders, but Rudolph was the well-beloved son of Herr Bolensk, and entertained an opinion that the son of the senior member of the firm was well able to safely deliver the biggest posy that any "order" girl ever saw.

"I tan tarry it, Jothie," he had said as he looked down upon the brand new knickerbockers and put his hands down deep in the pockets.

"You'll drop it and soil the ribbon," Josie had said despairingly.

"I won't drop it, Jothie."

"Come, hurry up, there!" Jim had cried from the sidewalk, and Josie gave an extra artistic snip on the ribbon ends with her small scissors as he spoke. She had then followed Rudolph out and placed the flowers in his hands with rather an angry little flirt. If anything happened to the order she would be blamed for allowing Rudolph to have the the least thing to do with it, and if the orders were belated Jim would be at fault for permitting any parleying upon the subject. So neither of these two people were in a very good humor.

Jim drove off rather furiously and Rudolph kept one eye on the notched ends of the blue ribbon as they rode up the steep hills. There was a fine stone mansion set up on the side of one of the hills like a ruined castle, only it was quite new. It simply reminded one of the fascinating castles one reads about in some books, and Jim stopped Bingo and sprang to the curbstone.

"Do I dit out here, Jim?" Rudolph asked.

"Oh you needn't git out, youngster. I'll have that bouquet inside in a jiffy."

Rudolph looked at Jim's hands and Jim glanced down at them with some confusion. To tell the truth they were rather grimy.

"Lift me out, Jim." Rudolph spoke in the tone of a person who expects to be obeyed and so Jim Whitby lifted him out. He toiled up the stone steps and Miss Rushmore came out upon the veranda as he went up the tesselated pavement, still holding the superb bunch of exotics in both hands.

"I tum to 'liver your flowerth," he said.

"That's very kind of you, you dear little boy," the girl answered. "Who is that magnificent bouquet for?"

"Jothie thaid the name was on the card," Rudolph said. He looked very much flattered.

"Oh I see, they are for me. Won't you come in? I should like to talk with you."

"No, thank you," Rudolph answered in his politest tone. "Joe is waiting an' tho I muth go."

He turned quickly and went down the walk, but as he reached the stone stairway he looked back, like the disobedient wife of Lot, and like her he immediately met with disaster. Rudolph lost his balance and disappeared.

Miss Rushmore ran to where he laid upon the first stone landing and knelt beside him. The fine nosegay laid upon the floor of the porch when the footman carried Rudolph into the dimly-lit hall, and Joe drove off furiously for Dr. Burdett and Mrs. Bolensk.

When Rudolph opened his eyes he looked into the soft, tear-dimmed eyes of his young mother and said:

"I 'livered the flowerth an' thee wath a buful young lady."

"Yes, I know, darling," Mrs. Bolensk answered, smiling through her tears and whispering something to the gray-haired physician who stood beside her. Dr. Burdett nodded his head and smiled at Rudolph.

"Jothie thaid that I'd muth it, but I—"

"The bouquet was in beautiful order, Rudolph," Miss Rushmore interrupted. "I shall tell every one how very carefully you brought it and delivered it."

"We'd better go home now, mamma," Rudolph said, sitting up very straight. He was rather dazed and did not seem to wonder at his mother's presence, and he acted as if he supposed that Dr. Burdett belonged there.

Rudolph rode home in his mother's victoria and the doctor declared that he was as good as new. "No broken bones this time, young man," he said laughingly.

Master Rudolph Bolensk has decided to be a doctor when he grows up. He considers it a very interesting and useful profession. Although Dr. Burdett persistently recounts the hardships of a physician's life, Rudolph is nothing daunted.

"Well, you thee it makth it very bad to break oneth bonth unleth there ith a lot of doctorth to thet them," Rudolph always answers, wrestling mightily with the little hissing aspirate which is such a stumbling-block to him on the royal road of progress.

The Reign of the Good-Luck Horseshoe.

Written for the RURAL PRESS by DUANE MORLEY.

It was the dining parlor with its gaily bedecked cash counter, its tastily furnished sideboard, its chairs, its nicely situated tables, and its pleasant proprietress and urbane usher.

Upon its peg just back of the cash counter, in full view of each fellow article of furniture, and where, too, it could cast its spell upon each entering and retiring customer, hung the good-luck horseshoe, magnet of fortune. Its graceful oval was twined with brilliant orange velvet, and its positive and negative poles each sharply defined and belligerent. Days passed. The broom in the corner was new, as was also the proprietress herself, new in the business, yet determined upon success.

For a week the increase was slow; then the floating trade, eager for change and aware of the newer venture, thronged in. And then it was that the proprietress smoothed the velvet-twined magnet lovingly, and patted its perfect oval as she said: "You are my talisman, aren't you?"

Then trial hours came; the novelty wore off and the floaters found a newer field; neither did advertising reattract, nor the changing of the chef and the cuisine reinvigorate.

The business was doomed and it drooped. The proprietress, now disheartened, cast reproachful, even angry glances at her once-loved talisman. Then bills due drifted in like snowflakes, and in the storm contentious voices were heard.

Even the clattering crockery, the clanging cuttlery and clinking crystals seemed to say to one another: "It is the magnet's fault; his charm is broken; let him be deposed." Soon, too, there were ominous occurrences; for the end was near. In the dark night hours a masked shape moved about, and gaseous, pungent odors followed him. Then alarm bells rent the air. * * * The morning disclosed a mournful scene. The chairs and tables of the dining parlor were charred, their drapery of cushion and cloth scorched, and each waiting vessel filled with the debris of conflagration.

The good-luck horseshoe still hung upon its peg, its wonted air of complacency changed to a look of despair, its oval blackened and its gaudy orange velvet scorched.

"How now, Mr. Talisman?" wailed the cinder-swept crystals sorrowfully.

"Now we are in the soup," responded the magnet *ironi*cally, "and the soup is sooty and awful."

In the House of Detention a man is held for arson—against dishonesty there is no material charm, and the reign of the good-luck horseshoe is at an end.

"THE doctors is always gettin' up a lot of new diseases, and the druggists is inventin' new nostrils to cure 'em," said Mrs. Partington. "There's Mrs. Jones has tonsors on her throat, and Mr. Jones has ulsters in his. Miss Smith has hermitage of the lungs, and her mother-in-law has two buckles on hers.'

FASHIONABLE WIFE—"Did you notice, dear, at the party last evening, how grandly our daughter, Clara, swept into the room."

Husband (with a grunt)—"Oh, yes! Clara can sweep into any room grandly enough; but when it comes to sweeping out a room she isn't there."

JACK—"I dined with Buskin the other day. He is a dry wit—called the turkey Douglas."

Tom—"Why?"

Jack—"Because it was tender and true."—*Truth.*

DOMESTIC ECONOMY.

Dangerous Use of Kerosene.

Building a fire with kerosene is becoming a fixed habit in this country, and should be discouraged by intelligent people.

At the City Hospital in Boston may be found at almost any time a victim of this dangerous habit. The only thing to be said in its favor is that it saves time and kindling—a trifling economy when compared with the serious, if not fatal, results which may follow.

The effect of the burn varies with the degree of the injury. Be careful in removing the clothes to save the skin unbroken. The contents of blisters should be carefully let out with a needle, and the cuticle pressed gently down upon the true skin. The first object is to exclude the air. This can be done by applying pure olive oil or vaseline. If the burn is slight, with only the surface reddened, dust with flour and cover with flannel or thick cotton wool.

If the surface be extensively burned the patient exhibits the sign of shock or collapse. In this case the skin is pale and covered with a cold perspiration, the pulse is rapid and feeble, with dilated nostrils and drooping lids. The patient lies in an apathetic state. In less severe cases there is nausea and vomiting.

Stimulants should be applied at once. Keep the patient's head low and apply hot bottles to the feet and sides of the body. Hot tea, coffee or beef tea may be given if it can be retained. When there is nausea, brandy is the best form of stimulant.

Every good housekeeper should do away with the possibility of this accident.—The Household.

CUSTARD PUDDING.—Take one pint of milk, stir into it gradually one tablespoonful of flour, the yolks of six eggs beaten light, sugar to taste, a flavoring of grated orange peel and a teaspoonful of brandy or jamaica rum. Finally, mix into it a teaspoonful of melted butter (which must not be hot), and pour into a buttered dish. Bake in a moderately hot oven.

EGG AND CHEESE SALAD.—Slice a dozen hard-boiled eggs, and put a layer of eggs in the dish. Grate on a thick covering of cheese, then another layer of eggs, alternating with the cheese till the eggs are used up. Sprinkle over the top a few capers and fine-chopped pickles. Pour over it all Mayonnaise sauce, and again cover with grated cheese.

CORN FRITTERS.—Two cups of cold, sweet corn cut from the cob or canned corn. Two eggs, one cup of sweet milk, one-fourth teaspoon of salt and half a teaspoon of soda two tablespoons of melted butter and thicken with flour to make a batter. Stir together; grease a spider with butter and drop in spoonfuls and fry brown; turn and brown other side.

BROWN SAUCE.—One tablespoonful butter, one tablespoonful flour, one-half pint of stock, one-half teaspoonful onion juice, one-eighth teaspoonful of pepper, one-half teaspoonful of salt. Melt the butter, stir until dark brown, add the flour, mix well, add the stock and stir continually until it boils; add onion juice, salt and pepper, and it is ready for use.

ROYAL

BAKING POWDER

Absolutely Pure.

A cream of tartar baking powder Highest of all in leavening strength.—*Latest U. S. Government Food Report.*

AGRICULTURAL NOTES.

CALIFORNIA.

Fresno.

LARGE SHIPMENT OF RAISINS.—Reedley *Exponent:* Five wagonloads of raisins arrived at the depot Oct. 12th from the Carl Fruit and Wine Land Co., situated five miles east of Reedley. This is the first lot of a large sale of six carloads by this company consigned to the East, and is a better proof than any bare assertion of the adaptability of the soil and climate of the country surrounding Reedley to the culture of the raisin grape.

Kern.

SECOND-CROP RAISINS.—Bakersfield *Echo:* A visit to the Galtes vineyard, just across the river, will repay any one. About 20 men are now at work gathering the second crop of raisin grapes, and the amount of fruit the vines are yielding is something very gratifying. As one rides along the road at the end of the field, he sees each alternate row literally lined with trays of grapes. For rods at a stretch these trays lie as close together as they can. The foreman says the vines are yielding from 100 to 130 pounds each. The first crop gave from 40 to 50 pounds. Three pounds of green fruit make one of raisins, so from these two crops there is something like 50 pounds of cured raisins. They are worth about 4½ cents in the sweat-box, or $2.25 a vine. There are 500 vines to the acre.

FIRST RAISIN SHIPMENTS.—Bakersfield *Californian:* The Rosedale Raisin Vineyard Company on Tuesday shipped one carload of raisins to San Francisco and another to Los Angeles. This is the first shipment from here this season and others will rapidly follow. This season's crop is of the very first quality and will undoubtedly command the highest market prices. This infant industry of Kern is rapidly growing out of swaddling clothes, and by next year will be an important factor in the world's market. Those who have pioneered in this enterprise are already reaping handsome rewards. Three years ago a few hundred boxes comprised Kern county's entire product, while now it is a shipment by carloads.

Lassen.

A LARGE STOCK RANCH.—Amedee *Geyser:* J. H. Toomy, of Churchill county, Nevada, selected a tract of land of 11,000 acres, lying a few miles north of Amedee, on which to transfer his business of thoroughbred stock-raising.

Los Angeles.

FACTS ABOUT PRUNES.—Pomona *Progress:* Out of the many reports of large profits from the prune crop in Pomona that has been marketed during the past few weeks, we select only a few sample ones, to show how much actual money there is in growing the fruit in this valley. The Simpson prune orchard of six acres, out near Fifth street, has yielded a crop that sold to C. A. Loud for $2845, or about $466 an acre. The trees are seven years old. The six acres of prunes, only five years old, on the Seth Richard's ranch at North Pomona, have yielded a crop that has been dried, and Frank L. Palmer, the manager of the property, has been offered $1400 for the product. From 79 prune trees, about eight years old, on the Arnold ranch, south of town, 19,700 pounds of fruit were picked. When dried, the crop weighed 5120 pounds and sold at nine cents. The gross receipts for the yield were $460; the net receipts, $392. There are three acres of seven-year-old French prunes on the Kramer ranch that produced 55,800 pounds of fruit this season. The crop was sold on the trees for two and one-half cents a pound, or $50 a ton. A check for $1382 was given for the three-acre yield.

A GREATER ACREAGE OF DECIDUOUS FRUITS.—*Progress:* Unless all indications fail, there is going to be the largest planting of prune, olive, apricot and peach orchards in Pomona valley next winter, of any time in seven or eight years. Every day we hear of some one who is buying land, or making plans to buy, clear or plant the broad acres in Pomona before next April, to some or all these varieties of fruits. Several contracts have already been made for setting out prune and peach orchards here, and the nurserymen say they have the largest demand they have had since the citrus-fruit boom began, for young deciduous trees suitable for planting. Of course it is too early to make any kind of a correct estimate of the extent of the new orchard-making in the valley. Several well-posted men believe it will be about 1000 acres. The fact that Southern California has, in an experience of 10 years, been proved a most prosperous home for the production of these deciduous fruits, and the great profit there has been in their crops, at least seven years out of 10, has brought the attention of the public to the prune, peach, olive and apricot orchards as gilt-edged investments.

Plumas.

MOUNTAIN ORCHARDS.—B. W. Barnes, of La Porte, in Oroville *Register:* This section of Plumas county is situated in the neighborhood of 5000 feet above the level of the sea, and is close up under one of the summits of the Sierra Nevada mountains, but although the snow falls very deep, yet it is much warmer here in winter than in the valleys of the county, the thermometer seldom going lower than about 12 above zero. It is the deep snow which breaks down the trees and not the frost that prevents more fruit-raising up here, yet it will surprise many to know the extent to which fruits and berries can, with a little care, be raised on these hillsides and flat places. In the way of flowers, too, I think I can safely say that no town of its size at as high an altitude can boast of as many and as nice flower gardens as the little town of La Porte. I have said that fruit can be raised here with care. I will now give a few instances in which care has been taken, and mark the result. Many years ago ago Mr. Alex McIntosh, one of the earliest settlers of Plumas county and a pioneer fruitgrower of Goodwin township, went into the timber below here and made a location for a home now known as Forest Ranch, went to work with a will, stripped the hillsides and flats of their timber, and in their place planted fruit trees of all kinds, and now has one of the finest and most productive ranches in Plumas county. Some years ago my nearest neighbor planted in his garden, by way of experiment, a stray apple tree which he found that has been full of apples year after year, and now has them on. About ten years since, Mrs. Geo. Babb discovered growing at her back door what she took to be a young apple tree, and which she nursed with care; that same tree has borne fruit for years, and now hangs full. In 1879, Mrs. Tabor, of Gibsonvile, planted a peachstone in her yard, and gave the tree much attention. It has been bearing for years, and as I passed in sight of it the other day, I noticed the fruit hanging in clusters. As a specimen of what can be done in the way of growing berries here, I will say that Mrs. Robblee, of this place, has a patch of the finest strawberries I ever saw, from which she has sold $100 worth this year. From these facts, it will be seen that even in these mountains fruits, berries and flowers can be raised with proper care and attention.

Orange.

HOW THEY KILL SQUIRRELS ON THE SAN JOAQUIN RANCH.—Orange *Post:* Mr. James Irvine, the proprietor of the San Joaquin ranch, has had a large force of men at work for a long time killing the squirrels on his land. The squirrels have become so numerous and were so destructive to the grain that it was found necessary to destroy them if possible; poisoned wheat was used, the preparation of which was known only to the man who had the contract in hand. About 20,000 acres have been gone over at an expenditure of $4000, the owner to pay one quarter and the renters three-quarters of the expenses per acre. It is claimed that 95 per cent of the squirrels have been killed, or 1,000,000 in all. Plowing has already commenced on the ranch; at the present writing, the prospect for early rain is good, and we trust that the ranch people will all do well with their barley the coming season.

San Bernardino.

ORANGE NOTES.—Redlands *The Fact:* The orange crop now offers good promises for the year. This year for the first time the effect of the very extensive planting of the last few years will be manifest in the yield. From this on for 10 years, at least, each year should show a big increase over the previous year.

San Joaquin.

TO TEST DEEP-PLOWING.—Stockton *Republican:* J. M. Benson, of Ell ott, states that he has observed that his finest grain and greatest yield comes from a portion of his ground adjoining his orchard. He attributes this to the fact that he cultivates his orchard more than he does the grain fields. He intends to deep-plow one field this winter, replow in the spring, and sow to grain and watch the result. Mr. Benson runs a thresher, and for the past eight years has kept a record of the yields, and he has observed that the heaviest yields have regularly been obtained from lands that are pastured one year and cultivated the next year.

Santa Clara.

GRAPE NOTES.—Los Gatos, Oct. 12: The light showers had the effect of lowering the per cent of sugar in the grapes for a day or two. It is now back again, and if the weather remains clear may rise a little higher. Those who are unfortunate enough to have fruit undried say that the weather barely enables them to keep it from molding; that there is no force in the sunshine. Raisin grapes, of course, will have to be subjected to artificial heat. Since the experiment by the Jesuit Fathers, which resulted in making a first-class wine of the Muscat grape, few are cured into raisins. An experiment is being made with the white grape, Sauvignon Vert, with a view of making a sauterne wine. The White Riesling also belongs to the same family. Judicious experimenting with different kinds of grapes, either alone or as blends, will undoubtedly result in marketable wines, for it must be beyond all doubt that good grapes will, if properly handled, make good wines. Starting on this basis, wine-making promises a good future.

AN IRRIGATION WELL.—Permanenta Cor. San Jose *Herald:* The new irrigating well of S. F. Lieb is just completed, and it remains only to put up the machinery. This well is 200 feet deep, 100 feet of which is dug and the other 100 bored. It is said that a splendid stream was struck at that depth, sufficient easily to irrigate his large prune orchards. Such wells are frequent enough in irrigating countries, but this is the first of its kind in this land of springs and living water.

PRUNE NOTES.—Los Gatos Cor. *Mercury:* Fifteen years of uninterrupted prosperity in prune culture in Santa Clara county places it among the reliable sources of wealth. Other places may or may not equal it in the future. At present this county produces more than all the rest of the State and the product is increasing at a rate that will soon make it greater than all other productions. There is a fear among many that prune culture is being overdone. Let us consider it on the basis of the last crop, 24,000,000 pounds in round numbers. That would give each man, woman and child in the United States, saying nothing about other markets, only a mess or two. Not one person in ten has ever tasted them; not one in a hundred has anything like an adequate supply. The idea of overproduction is absurd. Ten times the present quantity would find a market. It is expected, of course, that the consumption will increase gradually with the production. Prune orchards may not always yield their owners $200 or $300 profit to the acre, as now, but the profits may go down much below that and still be much more than comes from the cultivation of the staples, wheat and corn, which are the largest sources of wealth in the United States. Owing to the nature of our soil and the character of our climate, we have little rivalry to fear with the Mediterranean prune, formerly the only supply for the world. These frequent showers, and even protracted rains in the summer, intefere seriously with the ripening and curing of the fruit. The foreign prune is not only deficient in sugar, but, owing to the necessary use of artificial heat, has a smoky odor and a decidedly decayed flavor, while ours is sweet, fragrant and wholesome, because sunshine does the whole work. There is no suspicion of pestilences and plagues in the California product. The Mediterranean country has been on the line of march of all the great epidemics for thousands of years. Every package of fruit from there seems like a Pandora's box, full of all possible evils. These facts indicate a great and permanent trade in the prune. Undoubtedly new varieties will appear that will be superior to that on which our trade was built up. Even now we have five or six for which especial merits are claimed. Economy in processes will also become an important factor in the future.

Santa Cruz

CONTRACTING FOR BEETS.—Watsonville *Pajaronian:* Contracts for the coming year are being made at the beet factory. Beet-growing has become one of the established branches of farming in this valley. At a straight price of $5 per ton there is no speculation about the crop and the returns are sure. It is expected that the beet acreage of this district will be considerably increased during the next year.

Solano.

THE RAPID RECLAMATION OF FERTILE BOTTOM LANDS.—Rio Vista *News:* Judge Smith has a fine tract of 600 acres on Brannan island, adjoining Isleton, of which this year he had 220 acres into barley, 130 acres into beans, and 70 acres in sweet potatoes, and other ranchers of the island have nearly the same proportions of their ranches under cultivation. The Judge says there is not a drop of water to be seen anywhere, and if no flood comes this season the entire island will be a rich garden spot next year. He thinks it is singular that the owners cannot come to an agreement and effect an organization, but he has done all he can do or intends to do unless brighter hopes of an amicable agreement are held out. The formation of a district, taking in Brannan and the lower end of Andrus island, is the Judge's idea of the most feasible plan of protection against high water.

Sonoma.

ON SENATOR FAIR'S RANCH.—Petaluma *Courier:* Ed. Phelps, foreman of Senator Fair's great ranch below Lakeview, reports the new mile race track nearly completed, and says that it will prove a very good track. Sixty men are at work on the big ranch at present, and an important feature is the harvesting of the potato crop. The yield will amount to about 10,000 sacks. A great deal of barley was also raised on the ranch this season, but it will be used entirely for feeding purposes. There are 100 head of horses on the ranch, and it is not necessary to state that they are all "good stuff." Only first class stock finds a home on this ranch, which is intended primarily to produce "fine goods" in the way of horseflesh. The main idea is to turn out as many thoroughly good horses as possible, at any expenditure of money, labor and pains.

Sutter.

FLOATING BRUSH DAMS.—Yuba City *Farmer:* Levee Commissioner Brophy last Monday brought down the river one of the large floating dams or mattresses used for protecting the river banks and levees. It was constructed of large willow trees lashed together by cables, and was 600 feet long, 6 feet deep and 8 feet wide. The Baker launch towed it down, and it was securely moored in front of the Farmers' Union frame warehouse, where the current was undermining the bank. Where these dams have been put in, there has been a noticeable fill and building up of the banks, as the current is checked and the mud allowed to settle under the brush.

Ventura.

BEAN STRAW.—Saticoy Cor. *Free Press:* Our farmers cannot be too careful in feeding bean straw as food to stock. Two of our citizens have had very sick horses in the past week from a too free eating of that kind of fodder.

LARGE STOCK RANCH.—Newbury Park Cor. *Free Press:* Some 3000 sacks of barley were harvested on the Banning ranch this season. This ranch, comprising about 8000 acres, will be devoted the coming season to cattle and hog raising.

OREGON.

LANE COUNTY HOP CROP.—Eugene *Register:* Hops are still coming. The crop in Lane county this year is estimated at little over 3000 bales, nearly 2000 bales short of an average crop. The quality is first-class, which will partly make up for the short crop.

SHIPPING HORSES FROM EASTERN OREGON.—Baker City *Bedrock:* H. B. Clark, a horse-buyer from New Orleans, who has been in this section for the past ten days, has purchased three carloads of Baker county horseflesh and expects to ship to-morrow. The horses are a fine-looking lot, averaging about 1100 pounds and ranging in age from four to seven years. They were purchased from Mr. York, of North Powder, Mr. Williams, of Burnt river, and Mr. Brown, of Rye valley. This shipment will be a good advertisement and good results will follow. Mr. Clark will return to Baker in about a month and make another shipment. This will be the third shipment the gentleman has made in the past three months.

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They are made by the
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With California Capital and Labor.
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Workmanship and Material GUARANTEED.

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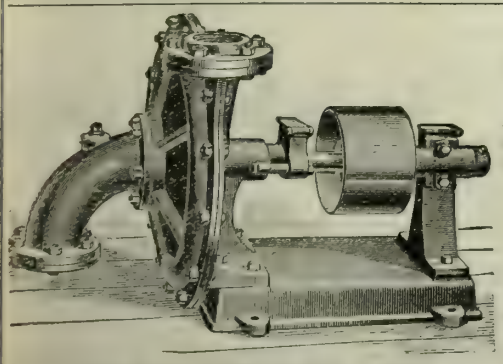

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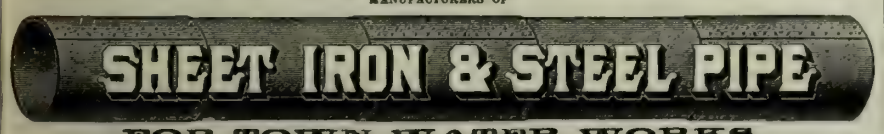

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This price includes the Regular Sulky Wheels as well, and either style may be used. We solicit your order.

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PATRONS OF HUSBANDRY.

To the Patrons of California.

At the recent meeting of the California State Grange, held at San Jose, it was unanimously ordered that the PACIFIC RURAL PRESS be, and the same is, hereby made the medium of official communication of the California State Grange. In pursuance of this order, I hereby urge upon the membership everywhere to write short, spicy, pointed articles for the PRESS. Report news, not fiction. Boil everything down to the point. Points are valuable. Let all the readers of the RURAL know *how* the Order is doing, and *what* it is doing, in your vicinity. By such correspondence the Grange will be benefited. Fraternally, E. W. DAVIS,
Worthy Master California State Grange.

The Official Wife.

In arranging for Grange representation at annual session the idea seems to never have entered the brains of the law-givers that it was possible for a patron to attain the standing in community and respect of his fellow-citizens implied in his election to the high office of worthy master without his having the good sense and fortune to choose a wife. But the best made plans of mice and men "aft gang aglee"—as Burns says and unmarried people are often elected masters.

Then follows a jangle about representation that sometimes results in four votes for one Grange and sometimes only one. In the confusion of alternates and their wives and masters' wives, and wifeless masters one Grange at the late session was reported to have elected a wife for the master. Not a bad idea after all! Probably he would have chosen one long ago had he known how many good true women were awaiting husbands. He did not feel acquainted—or was bashful, or too modest. Now the good sisters knew and respected him and realized how lonely he was coming to his desolate home with no loving smile to welcome him and they doubtless chose quite as wisely as he would have done. Then the next day I noticed a book entitled "The Official Wife" and know that she must have been the one elected by the Grange. Until ratified by the high contracting parties that would certainly be the title of one thus elected.

No master would be so ungallant as to refuse to invite one so honored to accompany him to the State Grange and there she would certainly be entitled to represent the Grange as intendant. If any question arose imagine the alacrity with which the worthy chaplain or Brother Perkins would happily adjust the matter. Where could young people make a start in life amid more pleasant surroundings or with a warmer circle of friends to wish them God speed than from a State Grange?

Of course this seems a ridiculous proposition; but after all nothing could create more merriment in a Grange, and its ten to one the votes would indicate a pretty wise choice and one that would frequently be ratified by the parties interested. The sisters would all attend Grange that day. At any rate no harm would be done, and full representation would be secured. Therefore allow us to prepare a new lady officer for half-headed Granges.—"The Official Wife."

An Omission Deeply Regretted.

Our reporter, who prepared the outline of the proceedings of the State Grange which appeared in last week's RURAL, made an unfortunate omission in naming the members of the Executive Committee. Hon. Cyrus Jones was elected to succeed Mr. Thomas McConnell and his name should have appeared as one of the new committee. Mr. Jones is well-known to readers of the RURAL and appreciation of his worth and ability extends beyond Grange circles. Nearly 20 years ago he brought to this State probably as fine a herd of Shorthorns as has ever been collected on this coast. In its best days, he was president of the old Shorthorn Breeders' Association. He has served with signal acceptability in our State legislature, and, in short, has always been regarded as a man of sterling integrity, as well as a man capable and valuable to any interest which commands his esteem.

Executive Committee Meeting.

The Executive Committee of the State Grange — Messrs. Walton, Loucks and Jones—met in the office of the Secretary on Tuesday morning and are still in session as we go to press on Wednesday. The particular work for which they were convened is to overlook the records of the late State Grange, arrange for their publication, and to attend to various other detail matters. A complete report of their doings will appear in our next issue.

Condition of the Order.

From the reports of lecturers and deputies which were commendably full and from reports of masters of subordinate Granges, read at the recent State Grange, we glean that there has been a steady and healthy gain of the Order during the past year, and an uncommonly good financial standing.

ENTERTAINMENTS.

In some places the free restaurant idea has been carried so far that a few sisters have to do all the work, and interest has centered so largely in that specialty that they may almost lay down the rule, "No feast, no Grange."

At Two Rock they have devised a system of providing for such things on regular stated occasions by dividing the sisters into classes which prepare entertainment by turns, and it is arranged what each shall bring in such a way that there is always plenty and little wasted, and yet the labor is not burdensome.

COOPERATION.

This is one of the features deserving more attention, as shown by the very satisfactory results attending several experiments.

Two Rock saved $500 (on purchases aggregating $2500) and might have done better yet had it not been for the cast iron regulations of dealers in hardware and implements with their local agents. Mr. DeHart reported a discount from $85 to $50 on a windmill through skillful use of trade-card advantages. Just a little care and attention in this direction would save enough to pay for the half-day's time the Grange takes once in two weeks, all the little Grange expenses, and the biggest profit the farmer makes on any investment besides.

Bro. Peterson, of Antelope, was made a life-long Granger by a saving of $500 in purchase of a steam threshing outfit very soon after his initiation. So fast as we can get in shape to live on last year's income instead of next, cooperation may be made a leading feature of promoting the organization. A Sutter county Grange proudly made the announcement that they came from a county were there was no saloon. [Great applause.]

CHILDREN'S DAY.

Exercises calculated especially to interest the children have been made a very successful feature of many Granges, particularly where it was made an open meeting and children were encouraged to invite friends.

LITERARY EXERCISES.

The lecturer's office is no sinecure in a live Grange for he must plan and superintend literary exercises and see that there is some interesting subject to come up at every meeting, so that no member shall ever go home feeling that he has not been paid for his time.

Right here let us take the opportunity to ask masters, lecturers and every other one who has the good of the Order at heart to help this department of the paper to build up the Order by sending in so many useful suggestions for discussion, instruction and entertainment that no lecturer may be so dull or so unaccustomed to such work but that a careful reading of this department may make him able to enthuse his Grange. Almost everyone of you have some good plans. Send them in and we will fix a place to boil them down.

ARBITRATION.

This is a feature that was but little discussed, but there has been a triumph in that direction during the past year worthy of extended notice.

On the St. Johns river in Tulare county were five conflicting water rights and prospects of unending controversy. Damage resulting was not from cost and ill-feeling, arising from litigation alone, but there was an uncertainty about water-supply that prevented development. With water, the country interested is among the most prolific sections in the State—the place where they get 1000 pounds of prunes from a tree. Without water, farmers get a crop of wheat just often enough to keep up their courage until they finally starve out. By influence of those who had been taught the theory of arbitration in the Grange, the St. Johns' River Association was formed and one representative of each conflicting interest elected a board of arbitration to which all questions arising are referred. It was a part of the agreement, carefully drawn and recorded, that the decisions of this board should have the same force and authority in law as a decree of court. This involves a prospect of settled prosperity in a country of about half a million acres, where all was uncertainty before and developments will proceed vigorously. Members of Tulare Grange deeply regret that the two brothers mainly active in this work seem likely to leave it for another organization. Wherever they go they will be followed by the good wishes of their fellow patrons, and the hope that they may be as useful in the new order as they have proven in the old.

Experience Gained From Grange Canvass.

The general tour of the Granges of California by leading advocates was a new plan of work and their reports showed that methods must be adapted to conditions to secure best results.

With strong Granges the plan was excellent giving new impetus to the work and often resulting in a large increase of members.

With weak Granges, the reorganization of those dormant and the establishment of new Granges it seems that a better plan would be to send one man to cooperate with those locally interested and remain several days.

It is very hard for a speaker to enthuse over an audience of empty benches and if he does succeed in imparting interest to a few the vital fluid becomes very thin when he leaves on the next train once it is spread over the whole community.

In organizing new or reviving weak Granges the approved method seems to be for the lecturer to make an appointment with that resident who has most of the Grange spirit in the community to meet him and visit such neighbors as he considers desirable material. By talking over in a friendly way by the fireside the objects, methods and plans of the Grange, embracing a clear idea of its social, educational, political and financial advantages they can interest almost every one who has the good of the community at heart in such degree as to make a desirable member. By appointing a meeting three or four days in advance and busily occupying the interval in a canvass of this kind they can generally draw out a good audience for the public meeting of whom the majority will remain and organize. Unless some of the members are veterans in the work and have not forgotten it the lecturer is needed about as badly at the second meeting as at the first.

A new Grange without help would be likely to live about as an infant would if thrown into the street without any mother.

Once get the master to understand that meetings must open promptly, in due form, and be conducted on business principles; the secretary to know that the records must be kept accurately and in a way to give a clear idea of the work, and the correspondence and accounts promptly attended to; the lecturer to provide that every member has something to do at every meeting, and your Grange can run alone. So long as every member feels, on the way home from each meeting, that he has been well paid for going, the attendance and interest will be maintained.

If John can do nothing more than bring a pail of water, and Susan a rose, see that John and Susan are there, and that their part in the work receives its share of recognition.

"No drones in our busy hive" was the winning motto of Watsonville Grange. It was not a motto simply to look at on the walls, but was woven into every fiber of its phenomenal vitality.

Granges that need the house-to-house canvass are, as a rule, those most remote from headquarters and most difficult for such busy men as the leading members of the Order to visit and devote the time necessary to work out the plan of a house-to-house canvass. For this reason it was suggested that the executive committee should give more encouragement to county deputies, as they often live so near that they can do the work at much less sacrifice to themselves and expense to the Grange than lecturers from a distance.

The suggestion occurs here that it would be a good thing at next State Grange, when one past master is exemplifying the unwritten work, for another to explain and illustrate to deputies methods of building and reviving Granges.

Among these, Worthy Overseer Roache has found the use of the local press very effectual. He made it a practice for years to insert some little paragraph about the Grange, every week, among the locals. He did not try to make a Grange department, but some news item to show the activity of the Grange and the nature of its work. In this way he kept it before the public in a way to increase its influence and usefulness.

FEAST OF POMONA.—At Turn Verein hall in San Jose, long tables for about 400 guests were tastefully decorated with fruit, flowers and cake, so that we might say it was a combined feast of Pomona, Flora and Ceres. The goddesses were shown in a magnificent tableau, displayed with brilliant effect by stage lights. The master performed a novel and touching ceremony in memory of our late worthy treasurer, the lamented C. J. Cressey. When a feast of Pomona takes place in such a fruit country as San Jose, under the auspices of people of such energy and taste as the San Jose Grange, it is truly a magnificent spectacle to be remembered for a lifetime.

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THE IDEA

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IN NO WAY MECHANICAL,

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If you only save one or two Nickles on each Fifty-cent purchase

You will be many Dollars ahead at the end of the year.

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Which is the result of years of figuring to make the best harness ever known for the money. It is made from oak stock, hand stitched and finished by skillful mechanics, handsome full nickel or Davis hard rubber trimmings.

Just the Harness for an Elegant Turnout.

They sell here for $25.00, and harness not as good is often sold for $35.00 in retail shops. If harness is not as represented, money will be refunded.

Liebold Harness Co.

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Collar and Hames, instead of Breast Collar, $2 00 extra.

Please state if you want single strap Harness, or folded style Harness, with traces double throughout.

WELL MACH'Y All Kinds, Water, Gas, Oil, Mining, Ditching, Pumping, Wind and Steam: Heating Boilers, &c. Will pay you to send 25c. for Encyclopedia, of 1500 Engravings. The American Well Works, Aurora, Ill. also, Chicago, Ill.; Dallas, Tex.; Sydney, N. S. W.

INFORMATION FOR SETTLERS!

The members of the Kern County Land Company have a national reputation for wealth, business and financial ability. These facts set the matter of reliability at rest. The company's capital stock is $10,000,000.

They have 400,000 acres of arable, irrigable lands upon which the sun shines almost constantly; and their enormous irrigation system renders them independent of the annual rainfall.

A clear title; rotation, variety and certainty of crops; easy terms; availability to persons in moderate circumstances; ground ready for the plow—no stones nor thistles; good society; schools; churches, etc., are a few notable attractions of this region of country.

Kern is the largest county in the San Joaquin Valley. It has the finest climate for curing and drying fruits, etc.

The 400,000-acre territory of the Kern County Land Company is the pick of the county.

Its area is 5,184,000 acres.

Has the largest irrigation system in America.

The home of the peach, French prune, pear and raisin grape.

Planting and harvesting can be carried on every month in the year.

No rocks, hills or stumps on the land.

A failure of crops is unknown on irrigated lands.

Kern county fruits take the first prize at the State Fair.

Land can be made to pay for itself in less than three years.

Grows more alfalfa than any other county in California.

The advantages of good soil and plenty of sun, which occur in the Kern Valley, would have been of little avail but for the third and all-important one of an abundance of water from never-failing sources.

Through 300 miles of main canals, and 1,100 miles of laterals, the great Kern river furnishes enough moisture to slake the thirst of the 400,000 acres already referred to.

Drought is out of the question.

The system has been constructed in the most careful and scientific manner. Some of the canals are 125 feet wide and six feet deep.

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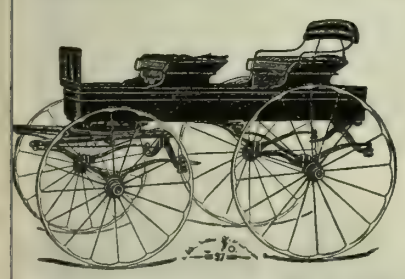

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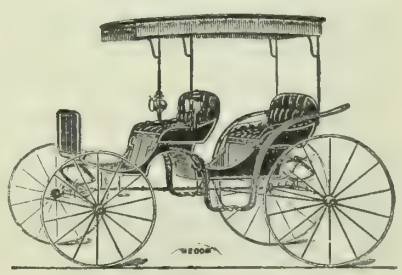

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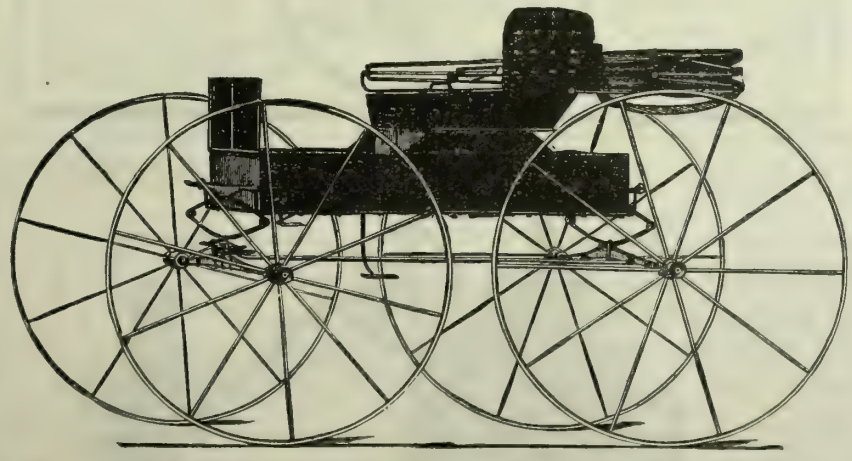

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A Grand Machine for Small Dairies.

Turns Easy, Simple, Practical for All who Milk.

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Is the BEST in the Market for all alluvial soils and is also the Cheapest.

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Our various shops are well equipped and we do all kinds of jobbing in Planing and Woodworking, Blacksmithing, Foundry and Machine Work.
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Home and Town Cleanliness.

The United States is to be congratulated on its escape from the cholera this year. New York city is to be complimented upon its successful effort to repress the invasion of the pest. The approach of winter made the efforts great and efficient as they were successful. The same efforts made in the last week of June might not result so favorably. We may hope that the rigors of a severe winter will put an end to the march of the epidemic, but it must be remembered that it has wintered in Russia and broken out in the spring. It is but logical to infer that it can only reach us next summer as a foreign importation. If it effects a lodgment on our shores in the early summer, it will in all probability spread over the continent. The efforts that have been made to place our habitations in good, sanitary condition will not be lost, even if cholera does not come. The result will be observed for many months in a lessened death rate from diphtheria, typhoid and other fevers, and minor ailments that arise from breathing emanations from decomposing animal and vegetable matter. The villages and smaller towns should, during the coming winter, while the ground is moist, improve their drainage. Very little effort in that direction has been made outside of the cities in California. In summer, while the ground is hard and dry, and the people engaged in agricultural pursuits, little is ever done in the way of such improvements. But no excuse can be advanced for not doing this work in the rainy months of winter, when there are idle hands enough to complete all that need be done, to place many of the small towns in perfect sanitary condition. Many beautiful hamlets, and some summer resorts, have no means provided for drainage, or have no sewers, and all refuse matter and house drainage is allowed to soak into the ground. It would be a paying investment to make all needed improvements of this character during the winter, and everywhere abandon as nearly as possible the abominable cesspool system. People living in the country towns may profitably bear in mind that in case of a cholera epidemic, the residents of cities will flee to the country and spread the contagion, and that small places not infrequently suffer in greater proportions than the larger towns. As a matter of economy a good system of sewers in a country village is always a paying investment. It acquires a reputation for salubrity, and induces the location of people of wealth and refinement, the building up of industries, and a rapid increase of population and enhancement in real estate. No sensible man will spend much money in beautifying a home where he cannot count an ample supply of pure water and pure air. Pure air cannot be obtained around human habitations where there are no means for the speedy removal of all refuse matter or waste, whether fluid or solid.

The Lincoln Pear.

The chief attraction in the Horticultural Hall at the Illinois State Fair was the new Lincoln Pear, Mr. F. S. Phœnix, of Bloomington, Ill., the introducer and sole propagator of the Lincoln Pear, exhibited samples through his agents, the Messrs. Jones.

This ironclad pear was first brought to public notice in 1889, through the *Rural New Yorker*. It stated at the time as follows: "The flesh resembles that of the Angouleme. The quality is, so to say, a combination of Bartlett, Angouleme and Anjou. Very juicy, aromatic. The skin is like that of the Angouleme. Seeds few and small. Received September 14th."

Mr. F. S. Phœnix soon secured control of this wonderful variety and is now disseminating it under copyright. A beautiful 16-page illustrated pamphlet, entitled "The Lincoln Pear," has been issued by Mr. Phœnix. It gives a full history of the variety, testimonials, etc. This pamphlet, with handsome colored plate, may be had on application.

No pear was ever introduced under more favorable auspices and we predict for it a great run as a permanent and invaluable addition to our fruit list.

Have Music in the Homes.

Its elevating and refining influence cannot be overestimated. A family without music is like a garden without flowers, while even one musical member will enliven and solace the home as will nothing else. "Very true," say the busy farmer and his still busier wife, "but where are our daughters and sons to find the time, when it requires several years constant practice to become tolerable, let alone proficient musicians?" In answer to this very just observation, you are advised to send to Kohler & Chase, Nos. 26, 28 and 30 O'Farrell St., San Francisco, for one of those beautiful catalogues of the new musical wonder—The Æolian. If this does not meet most of your objections, then inventive and musical genius are failures.

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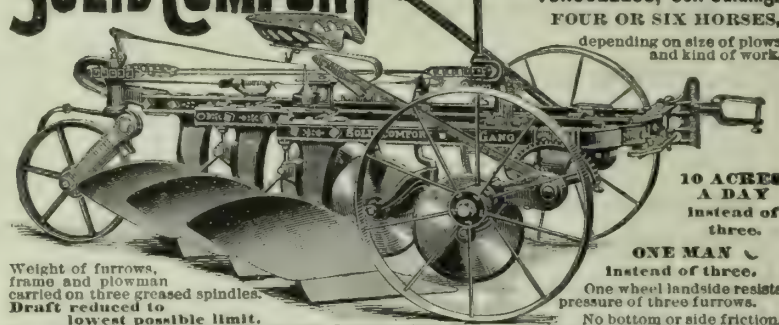

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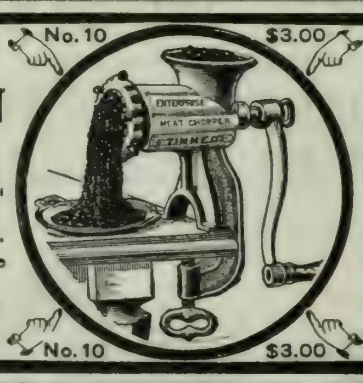

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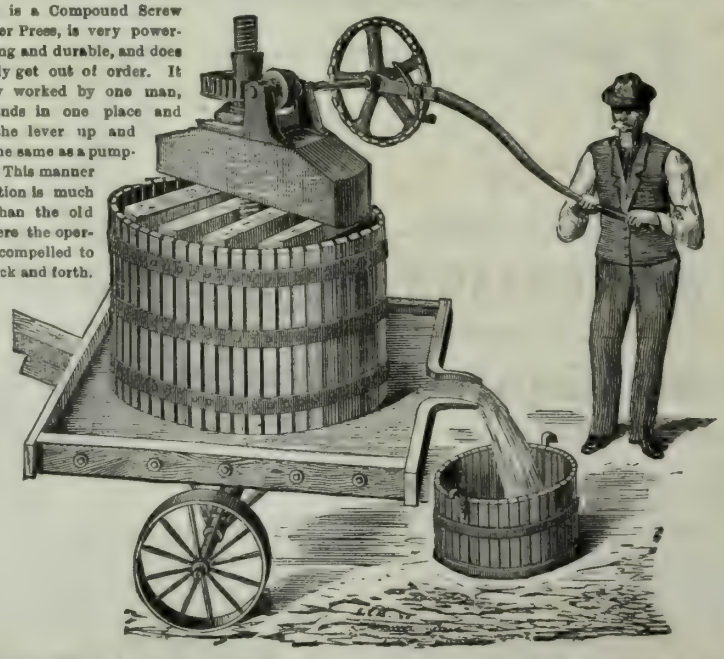

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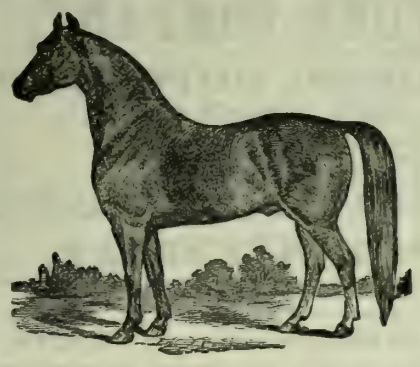

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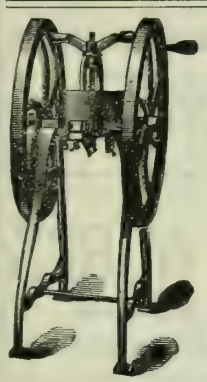

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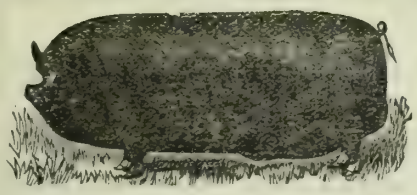

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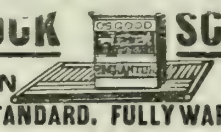

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Authorized Capital	$1,000,000
Capital paid up and Reserve Fund	800,000
Dividends paid to Stockholders	720,000

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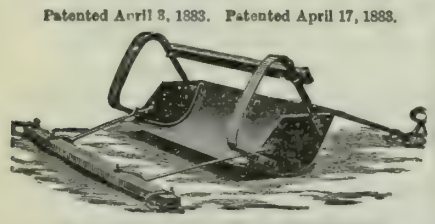
Patented April 3, 1883. Patented April 17, 1883.



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☞ This Scraper is all steel—the only one manufactured in the State.

Price, all Steel, four-horse, $40; Steel two-horse, $31. Address all orders to **G. LISSENDEN, Stockton, California.**

FOLDING SAWING MACHINE.

9 CORDS IN 10 HOURS,

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Order from the general agent for California. The machine will cost you less than by single shipment direct from the factory at Chicago.

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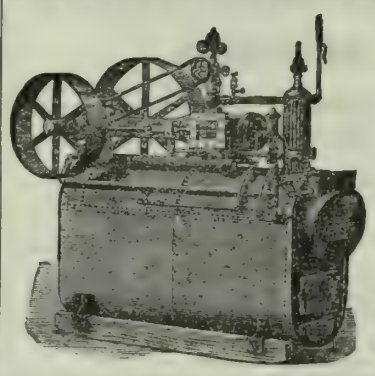

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APPLIED WITH AN ORDINARY BRUSH.

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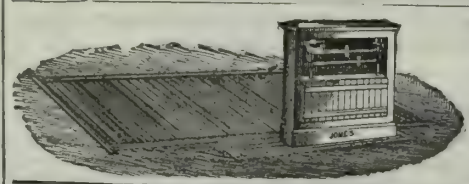

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OUR SPECIALTIES—Grain, Beans & Hay.

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On the Pacific Coast—AT LOWEST PRICES.

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SAN FRANCISCO.

S. F. Market Report

Market Review.

SAN FRANCISCO, Oct. 18, 1892.

The local money market is essentially unchanged. Remittances are reported slow, as is the demand. The rates of interest are, as a rule, in borrower's favor, with short time and also call paper given preference.

The wheat market at home and abroad has hung around at firm prices, with the tendency upward. The strong bear pressure, heretofore reported, does not appear to have been removed, for public advices are still of a bearish character. The real statistical situation of the world's supply and demand favors sellers; in this view the best authorities agree. The estimates of two of the leading writers on the world's supply and demand are briefly summarized as follows: Beerbohm, in his last report, sums up the wheat crop of the world for three years as follows: Europe, so he says, has 1,232,400,000 bushels this year, against 1,117,480,000 bushels in 1891, and 1,304 720,000 bushels in 1890. Outside of Europe, the crop this year he estimates at 907,200,000 bushels, against 1,068,640,000 bushels in 1891, and 820 440,000 bushels in 1890. This makes the aggregate of the world this year 2,139 600,000 bushels, against 2,185 9 0,000 bushels in 1891. Dornbusch, in an exhaustive review of the wheat situation, after carefully considering the prospective supply and demand, concludes as follows: "It would seem as if the exporting countries will be able to spare about 344,000,000 bushels to meet the European shortage of 304,000,000 bushels and the 24,000 000 bushels required by the West Indies, Brazil, the equatorial republics, China, etc., plainly show that although there may be bread enough, there is nothing to spare in the current cereal year. Accepting Dornbusch's statement as more nearly correct, still it is of a bullish character, particularly when taken in connection with the world's rye and corn crop and a big shortage in the potato crop in the United States. Writing on the wheat situation, the Liverpool *Corn Trade News* says that the world's reserves are moderate, and in some places exceedingly light, and the crop of wheat lately harvested falls beneath expectations, and is actually 6,000,000 qrs. less than last year's, certainly a not very material deficiency, but yet one that is striking enough when the high prices of last autumn and the marked contrast between the tone of the trade then and now are borne in mind. If it be urged that last season the great rye crop of the world was lamentably short, it may, with equal truth and greater force, be remarked that the deficiency in the maize crop this season runs into hundreds of millions. It may be worth while to add to the world's wheat crop the crop of maize and rye, and compare the result with last season, viz:

	189?—Qrs.	1891—Qrs.
World's wheat crop	264,000,000	270,000,000
Russian and German rye	106,000,000	87,000,000
American maize	206 000,000	260 000 000
Total	576,000,000	617,000,000

We have here a deficiency of 41,000,000 qrs. or 328,000,000 bushels. Aside from the crop shortage, the market price of silver cuts a very important figure. The advance that has been established in the value of the metal has, according to the Mark Lane *Express*, caused higher prices to obtain for 1893 Indian wheat that paper, just to hand, says: "Values are not hard to fix, for each quality of Indian wheat for 1892 is offered for 1893 at 1s. 6d. over 1892 terms, while buyers are forthcoming at 1s. more money."

Barley has held firm at a slight advance for both feed and malting. The receipts, though large, appear to have come to strong hands for concessions, unless in exceptional cases, were hard to secure. The demand continues to be large for feed, which is generally fed roll in the country. The supply of choice to gilt-edged bright grades, suitable for malting and shipping, appears to be lessening. English mail advices are quite bullish on malting barley; it is to this that we have to look for liberal shipments hence. The crop east of the Rocky mountains is considerably short of the outturn of 1891. Oats have held fairly the past week, under moderate receipts and a fair demand. Oregon and Washington are sending more moderate supplies to us, and as the receipts of Californian are falling off, the market has a stronger tone. Corn has come in quite freely and, with the demand of an offish character, the market held to lower prices for the different varieties. The crop in this State is short, but, with no shipping demand, local buyers are masters of the situation. Rye has strengthened. The strength of the market is due to stronger holding and a good demand.

Ground feed has met with an unusually free demand. Bran has come in free, but the demand has been active, which kept prices fairly steady. Middlings have come in only moderately. The feeding of roll barley continues to enlarge, keeping pace with the starting of plows in the more favored localities. The receipts of hay have been light, the demand is said to be freer, which causes a firmer market for the more choice. It is claimed that drying feding has been ruined by rains, which, if correct, might to make a still better demand for hay.

Butter still continues to hold the anomalous position reported in last week's review. Giltedged creamery has been sold in invoice lots at from 36 to 37½ cents, while 39 and even 40 cents was secured for single box lots from parties desiring special picks. At over 37½ cents the market has been weak, and even at that figure buyers are not any too willing. The absence of cold weather has been in favor of choice to gilt-edged fresh rolls or squares. Dealers report a continued fair demand for pickled, but as yet solid is not moving except to distant and older points. Rains the past week were only of sufficient duration to start the grass in certain localities, but with seasonable rains during the next 30 days pasture will be abundant and the butter market probably feel the effect. Cheese has ruled barely steady. The demand has been quite free, but it has been modified by liberal supplies. Eggs have not exhibited any material change; anything from good down have been slow of sale and low in price, but choice selected have ruled fairly firm. Receipts the past week were light.

In garden-truck, tomatoes have met with a steady call from canners. Other truck has met with a fair trade demand, and, as receipts were only moderate, the market did not exhibit any material change. Onions have held to fairly steady prices. The demand is mostly for local consumption. Potatoes have come freely. There has been a fair shipping and home demand. The U. S. Agricultural Department reports a light crop, which is corroborated by the Chicago *Farmer's Review* corps of correspondents throughout the central States. The reports, summarized, show that the crops, early and late, taken together, are very poor. In not one county in five of the States mentioned will there be an average crop. In Illinois 90 per cent of the correspondents report that the crop is very poor, in many cases almost a complete failure. A nearly similar state of affairs exists in Indiana, Missouri, Kansas, Nebraska, Iowa and Wisconsin. In Ohio and Michigan the crops are slightly better, about two-thirds of the counties reporting from a three-fourths to a full crop. Kentucky reports a full average crop in about half of the counties. In Minnesota about one-third of the counties will yield an average crop, but in most of the others it is decidedly poor. More than half of the correspondents in Dakota report a full crop.

The market for fresh fruit is confined largely to pears, apples and grapes. The market for each kind has held fairly steady the past week, the receipts and demand being about equal. Rains, it is claimed, did some damage to grapes in certain localities, but in others no damage was done, owing to their short duration and sunny weather since. Wine grapes have been doing better, owing to a better demand. Zinfandel sold at from $14@17 per ton, Mission $13@15 and white at $10@12

The dried-fruit market has been dull. Buyers appear to be picking up the odds and ends, and for which they bid less than current quotations. Holders of round parcels of choice do not appear to exhibit any uneasiness, for they think that better prices will prevail before new-crop season. The stock of all kinds at the East and also in Europe is reported lighter than it has been for years, which will tell later on in favor of the market. The Columbus festivities at the East are no doubt interfering with present trade, but after they pass, a much better inquiry is expected to set in. New York mail advices report moderate supplies, barely enough to meet the demand up to the time when the usual second fall demand sets in. Advices from Greece report only about half a crop of currants. Raisins are in good demand for home and shipping. The East reports an enlarging consumptive demand, but there does not appear to be any speculative movement.

There has been an active demand for almonds and walnuts, with round parcels of choice commanding a slight advance on current quotations. The light crop of almonds abroad is in favor of our market.

Beans have been moving off freely, under a good speculative and trade demand. Rains, it is said, did considerable damage; but so far as our experience goes, it is safe to say they did very little, owing to their short duration and drying weather since. The crop at the East and also abroad is said to be short.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	Oct.	Nov.	Dec.	Jan.	Feb.
Thursday	6s01½d	6s02 d	6s03½d	6s04 d	6s04¾d
Friday	6s01½d	6s02¾d	6s03½d	6s04½d	6s05 d
Saturday	6s01½d	6s02 d	6s03½d	6s03¾d	6s04½d
Monday	6s01½d	6s01½d	6s02¾d	6s03 3½d	6s04½d
Tuesday	6s01½d	6s01¾d	6s03 d	6s03¾d	6s04¼d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market for P. S.
Thursday	35s6d	33s6 d	33s6d	Rather firmer.
Friday	33s6d	33s6d	33s6d	Firm but inactive.
Saturday	33s6d	33s6d	33s6d	Rather firmer.
Monday	33s6d	34s 0 d	33s6d	Steadier.
Tuesday	33s6d	34s0d	33s6d	Firm.

To-day's cablegram is as follows:

LIVERPOOL, Oct. 19.—Wheat—Quiet but not steady. California spot lots, 6s 11½d; off coast, 33s 6d; just shipped, 33s 9d; nearly due, 33s 6d; cargoes off coast, nothing offering; on passage, firm but not active; Mark Lane wheat, firm; French country markets, steady.

San Francisco.

WHEAT.

	Seller '92.	Buyer Oct.	Buyer Dec	Buyer Jan.	May
Thursday, high st	133	....	136⅞	....	141½
" lowest	133	....	136½	....	141⅛
Friday, highest	....	....	137¼	138	142⅛
" lowest	....	....	136½	138	142
Saturday, highest	133½	....	136¾	....	141⅛
" lowest	133⅜	....	136⅝	....	....
Monday, highest	134	....	137½	....	141⅞
" lowest	134	....	136¾	....	141½
Tuesday, highest	....	....	136⅞	....	140⅞
" lowest	....	....	136⅝	....	141½

The following are to-day's recorded sales on Call:

Wheat—Morning—Informal—May—100 tons, $1.39⅜. Buyer December 500 tons, $1 3[illegible]; 700, $1 35⅞ per ctl. Regular session: Buyer December 1700 tons, $1.35⅝; 600, $1.35¾. May—400 tons, $1.39½; 500, $1.39⅜; 100, $1 39½ per ctl. Afternoon: May—100 tons, $1.39¾. Buyer December: 800 tons, $1.35⅝ per ctl.

BARLEY.

	Seller '92.	Buyer Oct.	Buyer Dec.	May
Thursday, highest	86⅞	....	91¾	....
" lowest	86⅝	....	91½	....
Friday, highest	86⅞	....	....	....
" lowest	86¾	....	90⅞	....
Saturday, highest	86⅞	....	90⅝	....
" lowest	86⅝	....	90½	....
Monday, highest	....	....	90	....
" lowest	....	....	90	....
Tuesday, highest	....	87	90¾	91½
" lowest	....	87	90⅝	91½

The following are to-day's recorded sales on Call:

Barley—Regular session: December—100 tons, 89½c; 100, 89⅝c; 100, 89½c; 100, 89½c; 100, 89c. January—100 tons, 90c: 200, 89½c per ctl. Afternoon: Buyer December 200 tons, 90½c. December—100 tons, 89⅝ per ctl.

New York.

Day.	Oct	Nov.	Dec.	May.
Thursday	131⅝	133½	136	146⅝
Friday	131	133	136½	146
Saturday	131	132⅞	135	146
Monday	131	132½	135	146
Tuesday	131	131⅝	134	145

The following is to-day's telegram:

NEW YORK, Oct. 19.—Wheat 78⅞c for November, 79⅞c for December, and 86⅝c for May.

Chicago.

Day.	Oct.	Dec.	May
Thursday	122½	126⅞	135
Friday	122½	126⅛	135½
Saturday	122	12[illegible]	134
Monday	122⅞	126⅞	134⅞
Tuesday	122	126	134

The following is to-day's telegram:

CHICAGO, Oct. 19.—Wheat—73c for October, 74½c for December, and 79⅝c for May.

Markets by Telegraph.

Canned and Dried Fruits are Firm.

NEW YORK, October 16.—Canned Fruits—Out-of-town orders have been received for trade lots of standard filling at full prices. Several wholesale parcels are in treaty. Dried peaches are steady at 14@16½ spot. Prunes—Good samples are shown. The moderate offering of sacks has found buyers at 10½@11c for four sizes; fifties to seventies, 11½@12½c spot. Apricots are firm at 15½@17c for sacks and boxes.

Wool Active With Supplies Light.

NEW YORK, October 16.—The movement of raw wool is not active, and holders are firm in their demands, believing that small takings at London for America, about 6 000 bales, with relatively small domestic stocks, tend to strengthen the situation. There are no prominent changes in the situation. Trade here was checked by the Columbus celebration, but was active at other points. It is conceded that little of the clip now remains to come forward and with mills running steady, some on double time, and a comprehension of stock resources sellers quote rates crisper. Sales at New York, 304,000 pounds of domestic and 657,000 pounds of foreign. Sales at Boston 3,404,350 pounds of domestic, 140,000 pounds of foreign carpet, 90,000 scoured Australian at 68@70c and 285,000 sand Australian at 31@32½c which is lower. Philadelphia reports a fairly active, strong market, particularly for unwashed grades.

Hops Quiet But Steady.

NEW YORK, October 16.—Hops are quiet. There was one sale of choice Pacifics at 25c. Fair quantities of Pacifics are being shipped to Europe on consignments of delivery on early purchases.

Oct. 17.—Light sales to brewers. Best new State 25c, in sympathy with interior prices, Pacifics, 24c; other grades are unchanged. Exports for the week, 1,059.

Lima Beans' Holders Resist a Decline.

NEW YORK, October 16.—Holders resist the declining tone last noted. Choice is held at $2.05 spot a bushel.

Rejecting Raisins. Demand Improving.

There is more inquiry, but it is difficult to give a straight story about prices. Several lots missed contract arrival, and the wet, poorly-cured condition of a portion of the bags have brought up the entanglement of rejection. It must be said that the supplies of bags thus far do not inspire confidence; the quality must average better if the current of ordinary trade is to be wooed from Valencias. Some of the box receipts are giving satisfaction. Spot Three Crown layers sold at $1.75, and Four Crown at $1.90. Rates for loose are still above the large offering of Spanish.

Dried Prunes Advancing.

NEW YORK, Oct. 18.—For new California prunes, 60s@90s; bags, 9¼c f. o. b. coast There has been a decline since Friday, when 9⅜c was paid in a few instances and 9½c generally asked; 50s to 90s sold a few days ago at 9½c and are now held ¼@⅛c higher. Upon the whole the market shows a decidedly strong undertone.

Wheat and Barley Higher in England.

LONDON, October 17.—The *Mark Lane Express* says: It is now believed that the yield of wheat in Great Britain does not exceed 8,000,000 quarters. There is a fine yield of barley, but fine malting grades are very scarce. Wheat has fallen 1s. Foreign wheats are firm, as the decrease in Indian shipments balances the large American crop. Barley is 6d dearer; oats and corn are steady. To-day English wheat was steady; fine American advanced 1s; ordinary was 6d higher Flour, 6d higher. Barley and corn were firm. Oats, 3d and linseed 6d higher.

General Remarks and Statistics.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending Oct. 18, '92, were as follows:

Flour, qr. sks	175,633	Bran, sks	17,774
Wheat, ctls	281,288	Buckwheat "	40
Barley, "	66,226	Middlings "	3,826
Rye, "	670	Chicory, bbls	197
Oats, "	9,224	Hops, "	750
Corn, "	5,257	Wool, "	4,775
*Butter, "	1,318	Hay, ton	1,902
do bxs	597	Straw, "	76
do bbls	3	Wine, gals	143,560
do kegs	20	Brandy, "	660
do tubs	158	Raisins, bxs	4,029
do ½ bxs	100	Honey, cs	....
†Cheese, ctls	630	Peanuts, sks	774
do bxs	4	Walnuts "	182
Eggs, doz	19,370	Almonds "	64
do " Eastern	1,200	Mustard "	120
Beans, sks	26,169	Flax "	....
Potatoes, sks	28,405	Popcorn "	....
Onions, "	5,970	Broom corn, bbls	187

*Overl'd, — ctls. † Overland, 228 ctls.

Cereals.

The Liverpool *Corn Trade News* says: "The key to the situation this season may be found in an unexpectedly large demand for wheat from the Continent which will help to raise prices out of the mire into which they have fallen. With the recent heavy importations of France and Germany so vividly in mind it is natural to look for an unusually light demand from these countries during the ensuing year, but the expected rarely happens. It will be in the memory of all how, in recent years, from 1884 to 1888, the annual consumption of the world appeared to be contracting, instead of displaying its customary yearly expansion. It was generally allowed that this delusion was owing to the fact that holders of wheat and flour, from the farmer to the baker, were so profoundly discouraged by the unexampled trade depression all over the world in those years, that they let down their normal reserves to the lowest possible point, and consequently supplanted the ordinary current supplies with certain invisible stores of their own. This tendency was no longer noticeable after the year 1888, and at some time in the following year, with a return of confidence in the future of wheat, a commencement was made to acquire and build up again the original reserves. There are numerous signs now observable that these invisible reserves have been partially reconstituted and it appears extremely likely that all classes of the trade, farmers, merchants, millers and bakers will, without exception, be induced to maintain them at their present level, if not further increase them, as long as values remain in the neighborhood of 30s per quarter for average samples of wheat. It will be prudent therefore to reckon with the possibility and even probability of full average requirements by all the bread-eating nations during 1892-93, or for as long as the present depreciated currencies exist."

The wheat market to-day was steady, with a firmer tone. The offerings were moderate, while there appeared to be a slightly better demand.

Barley was slow to-day, but the tone was strong. Holders are disposed to ask more money.

Oats were quiet but firm at current quotations.

Corn sold still lower. The market closed weak under fair offerings and buyers offish.

Rye was barely steady.

Feedstuff.

The market for ground feed was firm at full quotations for bran, middlings and barley, but weak for feed corn.

In hay the market did not exhibit any material change. Receipts were light, barely sufficient to meet the demand. A better inquiry is expected to set in next week.

Dairy Produce.

Butter was weak to-day, with dealers not buying beyond nearby wants. For all grades under choice quotations are altogether nominal. Cheese was weak with concessions made to large buyers. Eggs were irregular. For very choice good prices were paid in a small way, but for all kinds under choice the market was weak and hard to quote.

Vegetables.

Rains and cold weather have caused cucumbers and tomatoes to sell higher. Other garden truck was unchanged.

Onions and potatoes were fairly steady under moderate receipts and a fair demand.

Fruit.

Grapes were in good supply to-day. Canteloupes were hard to sell even at low prices. Melons were also slow. Choice peaches sold well, also choice pears. The market is bare of extra choice apples. Figs were in light offering.

We omit quotations for dried fruit this week, owing to crowded columns, but the market is quoted the same as it was last week. To sell, low prices have to be accepted; to buy, full prices have to be paid.

Live Stock.

Last week's quotations cover this week's prices. Last week's remarks also hold good this week.

Miscellaneous.

Poultry has held fairly firm throughout the week for good stock, but weak for poor stock. To-day turkeys were scarce and wanted; as high as 22 cts. was paid for gobblers. Small broilers are scarce.

Hops have come in quite freely. European advices report advancing markets for choice, owing to short crop. In our market buyers and sellers are apart.

The receipts and sales of fall wool were heavy the past week. About all the buying is by scourers.

Beans were firm to-day.

Honey continues to hold to strong prices for extracted.

Nuts were about the same as reported in the review.

Hams and bacon were steady with a firmer tone.

General Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

OCTOBER 19, 1892.

BEANS AND PEAS.		**FLOUR.**	
Bayo, ctl	2 10 @ 2 20	Extra, city mills	4 15 @ —
Butter	2 50 @ 2 80	Do country m'ls	4 15 @ —
Pea	2 40 @ 2 65	Superfine	2 65 @ 3 00
Red	2 30 @ 2 50	**NUTS—JOBBING.**	
Pink	2 25 @ 2 35	Walnuts, Cal. lb.	8 @ —
Small White	2 35 @ 2 60	Do choice	10 @ —
Large White	2 05 @ 2 20	Do paper-shell	11 @ —
Lady Wash	2 20 @ 2 30	Almonds, soft sh'l	12 @ —
Lima	3 00 @ 3 15	Paper shell	13½@ —
Fld Peas, blk eye	1 60 @ —	Hard shell	6 @ —
Do green	2 20 @ —	Brazil	7½@ —
Do Niles	1 60 @ —	P cans, small	11 @ 13
Split	4 50 @ 5 50	Do large	14½@ 16
BUTTER.		Peanuts	3½@ 4½
Cal., poor to fair, lb	17 @ —	Filberts	11 @ —
Do g'd to choice	27½@ 34	Hickory	7 @ 8
Do Giltedged	— @ 36	Chestnuts	11½@ 16
Do Creamery	30 @ 35	**ONIONS.**	
Do do Giltedge	— @ 37½	Silverskin	40 @ 55
East rn, lad e	17 @ 20	**POTATOES.**	
Cal. Pickled	22½@ 26	River Reds	40 @ 55
Cal. Keg	21 @ 25	Early Rose, ctl	45 @ 60
East'rn Cr'am'y	25 @ 30	Peerless	50 @ 70
CHEESE.		Garnet Chilies	60 @ 75
Cal. choice cream	9½@ -	Burbank S ed's	50 @ 60
Do fair to good	8 @ —	Do do Salinas	75 @ 1 10
Do Giltedged	— @ 11	Sweet	75 @ 1 25
Do Skim	5 @ 6½	Extra choice sell for more money	
Young America	— @ 12	**POULTRY.**	
EGGS.		Hens, doz	6 00 @ 7 00
Cal. "as is," doz	18 @ 20	Roosters, old	6 0 @ 6 50
Do shaky	14 @ 16	Do young	5 00 @ 6 10
Do candled	21 @ 25	Broilers, small	2 75 @ 4 00
Do choice	27 @ 30	Do large	3 25 @ 4 00
Do fresh laid	— @ 35	Fryers	4 00 @ 5 00
Do do s'led white	— @ 40	Ducks	4 50 @ —
Eastern "as is"	18 @ —	Do large	6 00 @ —
Do candled	22 @ 35	Do extra large	7 00 @ —
Do selected	— @ 27½	Geese, pair	1 50 @ 2 25
Outs de prices for selected large eggs and inside prices for mixed sizes—small eggs are hard to sell.		Turkeys, gobl'r.	19 @ 21
		Turkeys, hens	17 @ 19
		All kinds of poultry, if poor or small, sell at less than quoted; if large and in good condition, they sell for more than quoted.	
FEED.			
Bran, ton	14 50@ 16 50	Manhattan Egg Food (Red Ball Brand) in 100-lb. Cabinets	— @11 50
Feedmeal	26 00@ 29 00	**GAME**	
Gr'd Barley	19 00@ 20 50	Quail, per doz	1 25 @ 1 50
Middlings	22 00@ 25 00	Ducks	— @ —
Manhattan Horse Food (Red Ball Brand) in 100-lb. Cabinets	— @ 8 00	Do Mal'd ⅌ doz	4 00 @ 5 00
HAY.		Do Sprig	2 25 @ 3 00
Wheat, per ton	8 50@ —	Do Teal	1 75 @ 2 50
Do choice	— @ 13 50	Do Widgeon	1 50 @ 1 75
Wheat and oats	8 00@ 12 50	Do small	1 00 @ 1 50
Wild Oats	7 00@ 10 00	Geese	— @ —
Cultivated do	6 00@ 9 00	Do gray ⅌ doz	2 25 @ 3 00
Barley	5 50@ 8 50	Snipe	— @ —
Alfalfa	7 00@ 9 00	Do English, doz	2 25 @ 3 00
Clover	5 50@ 9 00	Do Jack, per doz	75 @ —
Straw, bale	30@ 50	Hare, per doz	1 50 @ 1 75
GRAIN, ETC.		Rabbits, large	1 25 @ 1 50
Barley, feed, ctl	75 @ —	Do small	1 00 @ 1 25
Do good	82½@ —	**PROVISIONS.**	
Do choice	85 @ —	Cal. bacon, heavy, per lb.	11 @ 11½
Do brewing	92½@ —	Medium	12 @ 13
Do do choice	96½@ —	Light	13½@ 14
Do do Giltedge	1 00 @ —	Lard	8 @ 11
Do Chevalier	85 @ 1 10	Cal sm'k'd beef	11 @ —
Do do Giltedge	1 15 @ 1 25	Hams, Cal salt'd	12 @ 13½
Buckwheat	2 50 @ —	Do Eastern	13 @ 14
Corn, white	1 25 @ 1 30	**SEEDS.**	
Yellow, large	1 10 @ 1 15	Alfalfa	11 @ 12
Do small	1 17½@ 1 20	Clover, Red	15 @ —
Oats, milling	1 35 @ —	White	25 @ —
Feed, choice	1 30 @ —	Flaxseed	2 25 @ —
Do good	1 25 @ —	Hemp	3½@ 4
Do fair	1 17½@ —	Mustard, yellow	5½@ 6½
Do common	1 05 @ —	Do brown	4 @ —
Surprise	1 47½@ —	**WOOL.**	
Black Cal	1 05 @ 1 20	**FALL, 1892.**	
Do Oregon	— @ —	S Joaquin, plain	6½@ 10
Gray	1 22½@ 1 30	Do mountain	10 @ 12
Rye	1 15 @ 1 20	Do lamb	8 @ 10
*Wheat, milling		Northern Choice	14 @ —
Giltedged	1 37½@ —	Do Defective	11 @ —
Do choice	1 35 @ —	Do Lamb	10 @ 14
Do fair to good	1 33½@ —	**HONEY—1892 CROP.**	
Shipping, choice	1 35 @ —	White comb, 2-lb frame	9½@ 12½
Do good	1 32½@ —	Do do 1-lb frame	11½@ 14½
Do fair	1 30 @ —	White extracted	7½@ —
Common	1 26½@ —	Amber do	7 @ —
Sonora	1 25 @ 1 30	Dar do	6½@ —
HOPS.		Beeswax, lb	23 @ —
1892, fair	18 @ —		
Good	20 @ —		
Choice	21 @ —		

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

OCTOBER 19, 1892.

Limes, Mex	4 00 @ 4 50	Extra choice fruit for special purposes sells at an advance on outside quotations.	
Do Cal	2 00 @ 5 00		
Lemons, box	5 00 @ 7 00		
Do Sicily choice	7 00 @ 9 00		
Strawberries, per chest—Sharpless	6 00 @ 9 00	Beets, sk	— @ 75
Peaches, box	50 @ 1 50	Carrots, sk	40 @ —
Apples	20 @ 50	Okra, dry, lb	— @ —
Do Choice	75 @ —	Do green box	40 @ 65
Do Extra choice	— @ —	Parsnips, ctl	1 00 @ 1 10
Canteloupes, pr crate	25 @ —	Peppers, dry, lb	10 @ —
Melons, pr 100	5 00 @10 00	Do grn Chili, bx	25 @ 35
Nutmegs, ⅌ box	25 @ 50	Do do Bells	25 @ 40
Grapes, pr bx—		Turnips, ctl	50 @ —
Do White	25 @ 40	Cabbage, 100 lbs	35 @ 50
Do Black	20 @ 40	Garlic, lb	2 @ 2½
Do Muscats	25 @ 60	Tomatoes	20 @ 50
Do Tokays	40 @ 60	String Beans, lb	3 @ 3½
Do Royal Isabel	1 00 @ 1 25	Lima Beans	3½@ 4½
Do Cornichon	50 @ 75	Cucumbers, box	50 @ 75
Winn Grapes, Zinf'nd'l, pr tn	15 00 @17 00	Do pickle ⅌ lb	1 @ 2
Mission	13 00 @15 00	Mushrooms	— @ —
White	10 00 @12 00	Egg Plant, bx	25 @ 50
Pears	25 @ 1 00	Green Corn, box	1 00 @ 1 75
Quinces pr bx	60 @ 75	Marfat Squash, ⅌ ton	5 00 @10 00
		Cauliflower	50 @ 65
		Celery	50 @ 75

Auction Sales of California Fruits.

At New York.

Oct. 14.—One carload, full crates, Tokay Grapes, $3 20@$3 65; half crates Tokay Grapes, $1.30@$1.90; Cornichon Grapes, $1 50.

Oct. 14.—Five carloads, double-crate, Tokay Grapes, $2 50@$3; single crates, Tokay Grapes, 75c@$1.50; single crates, Cornichon Grapes, $1.35@1.82; single crate Muscat Grapes, 55c@$1.25 single crate Emperor Grapes, $1.10; Figs, $2 40; Cling Peaches, $1.45@$1.85; Quinces, $1.36@$2.50; Salway Peaches, $1.15@$1.90; Coe's Late Red Plums, $1 90 Winter Nelis Pears, $2.70; Peaches $1.10@1.40; Billyeau's Late Peaches, $2 20@2.35; Levi Cling Peaches, $1.25.

Oct. 15.—One carload, full crates, Tokay Grapes, an average of $2 and for half crates of Tokay Grapes, an average of $1.10.

Oct. 17.—Three carloads: Cornichon Grapes, $3.65; full crates Tokay Grapes, $2.20@3.65; half-crates Tokay Grapes, $1.25@2.05; Winter Seckel Pears, $2 20 ⅌ half-box; Bilyeau's Late Peaches, $2.10 ⅌ box.

Oct. 17.—Five carloads: Half-crate Tokay Grapes,

55c@$1 70; double-crate Tokay Grapes; $2.45@3 15; half-crate Muscat Grapes, 55c@$1.35; Rose de Peru Grapes, 55@75c; Assorted Grapes, 80c@$1.35; Morocco Grapes, $1.45@e.65; Cornichon Grapes, $1.58@2.25; Winter Nelis Pears, $1.70@2.65; Vicar Pears, $1 60; Pears, $1 90@2.85; Bilyeau's Late Peaches, $1.50@2.25; Cling Peaches, $1.40; Levi Cling Peaches, $1.05@1.45; Ferrara Grapes, 75c@ 1; Quinces, $1.60.

At Chicago.

October 15.—Two carloads: Malaga Grapes, 55@85c; Cornichon Grapes, $2.65; Tokay Grapes, single crates, $1.30@1.40; Tokay Grapes, double crates, $2.60@3 40; Rose de Peru Grapes, $1 50; Muscat Grapes, single crates, $1@1.30; Muscat Grapes, double crates, $2.

October 15.—Three carloads: Full crates Tokay grapes, $3 15; half crates Tokay Grapes, $1.40; full crates Muscat Grapes, $2 55; half crates Muscat Grapes $1.15@1.20; half crates, Cornichon Grapes, $1.15; Salway Peaches, $1.85. Some grapes which arrived in a damaged condition sold for less than the prices named above.

Oct. 17.—Two carloads: Late Crawford Peaches, $1.70 ℔ box; Bilyeau's Late Peaches, $1.50@1 55 ℔ box; Black Morocco Grapes, half-crates, $1.40; Tokay Grapes, half-crates, $1 25@1.40; Muscat Grapes, half-crates, $1.10; Purple Damascus Grapes, half-crates, 90c; Beurre d'Anjou Pears, $2 50 ℔ box; Winter Nelis, Pears, $2.15 ℔ box; Vicar Pears, $2.15 ℔ box.

Oct. 17.—One carload: Double-crate Tokay Grapes, $2.85@3.05; single-crate Tokay Grapes, $1.10@1.45; double-crate Cornichon Grapes, $2.35.

At New Orleans.

October 12.—One carload: Bartlett Pears, $4 25, Tokay Grapes, $2.95@3; half crates, $1 80@1.50; Muscat Grapes, $2.40; half crates $1.10@1.25; Verdelle Grapes, half crates, $1.10; Cornichon Grapes, half crates, $1.30 Salway Peaches, $1.10@1.60

At Minneapolis.

October 12 —One carload: Pears selling $2.35@2 75; Peaches, $1 55; Grapes, 55@70c. Gross sale of car, $1191.

October 15.—One carload: Pears, $2@2.60; Quinces, $1 65.

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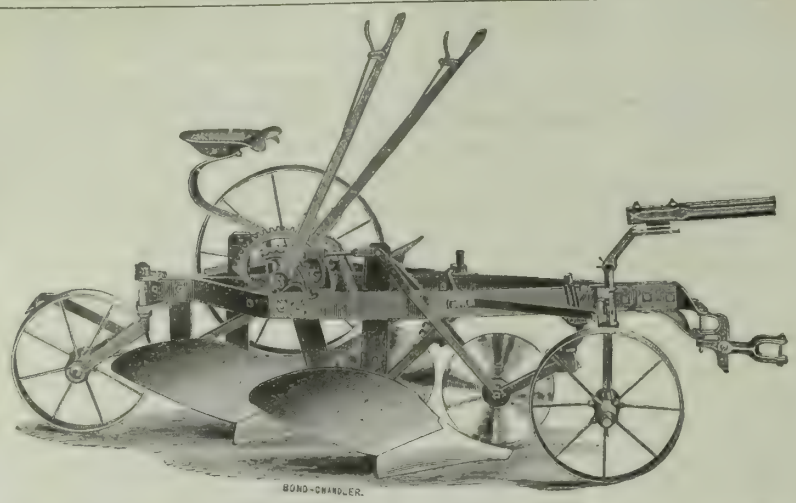

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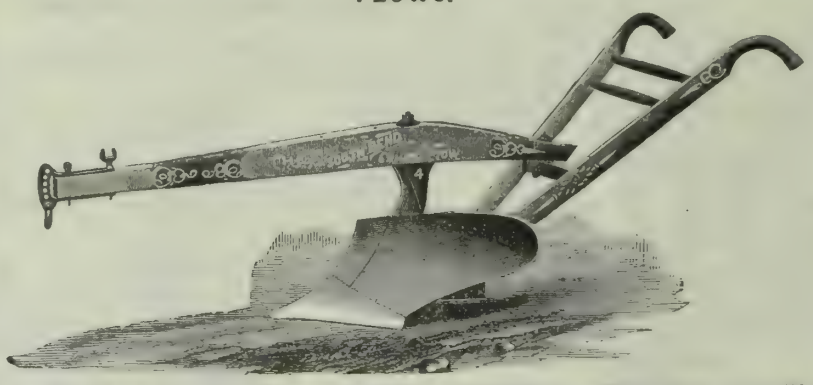

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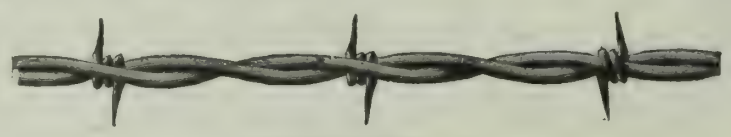

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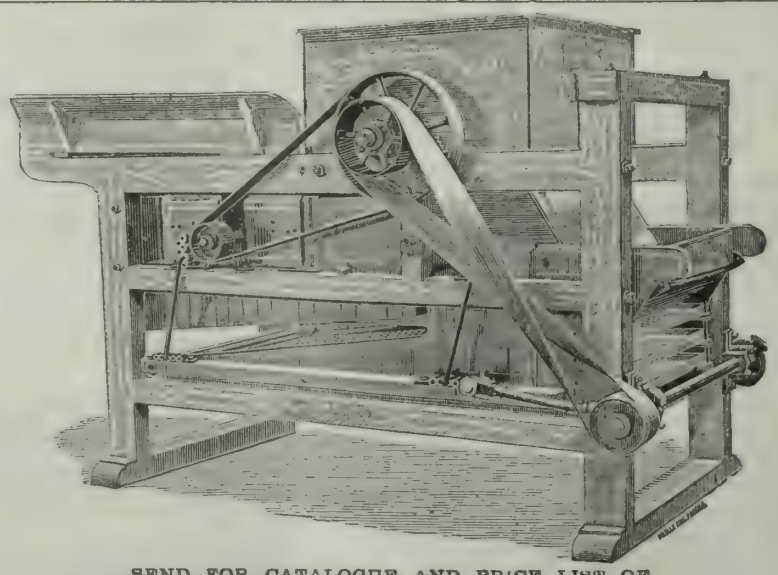

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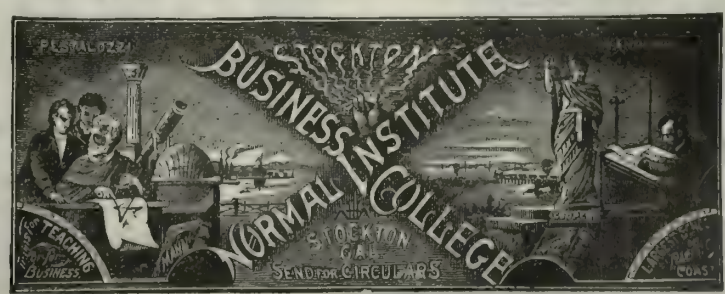

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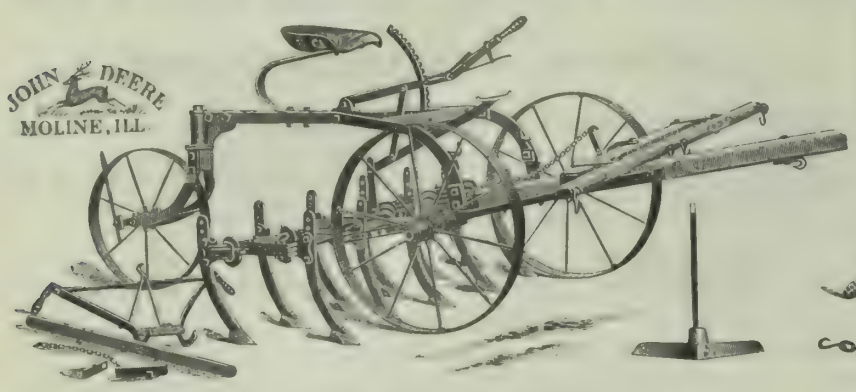

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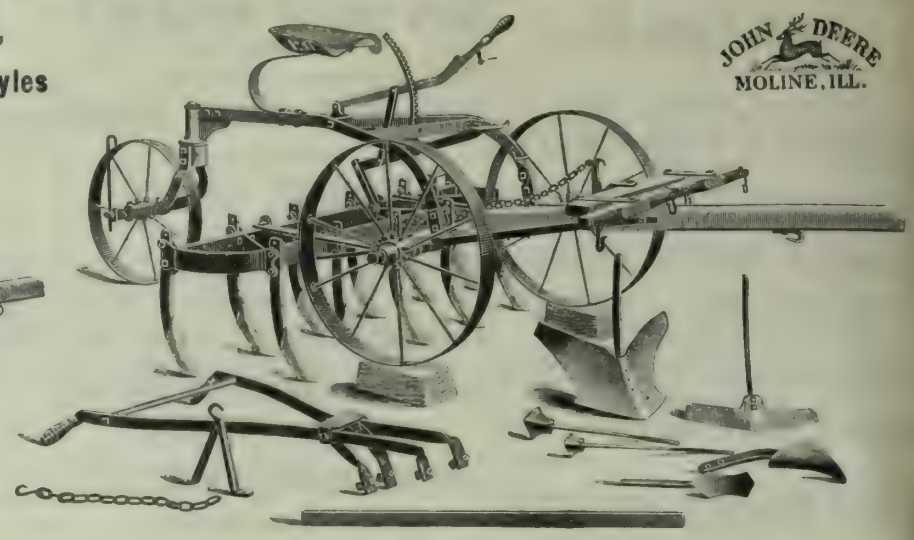

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"Atmospheric moisture is best absorbed by a loose, finely-pulverized soil surface. In this country evaporation outdoes absorption over and over again during the season of driest air. No one would think of "stirring up" soil to get anything out of the air, unless it might be in the fog belt of the coast. Better keep what moisture you have in the soil so the plant can have the full benefit of it."

The above sensible expressions we copy from an editorial in the "RURAL PRESS" of Sept. 3, 1892, and they have the endorsement of the successful fruit-raisers of this State, Turning damp soil up to the sun's rays will not keep it damp, but the air will take the moisture. To avoid evaporation

USE SHOVELS THAT LOOSEN THE SUBSOIL WITHOUT DISTURBING TOP SOIL.

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Matchless for Pulverizing Salt Grass and Other Sods.

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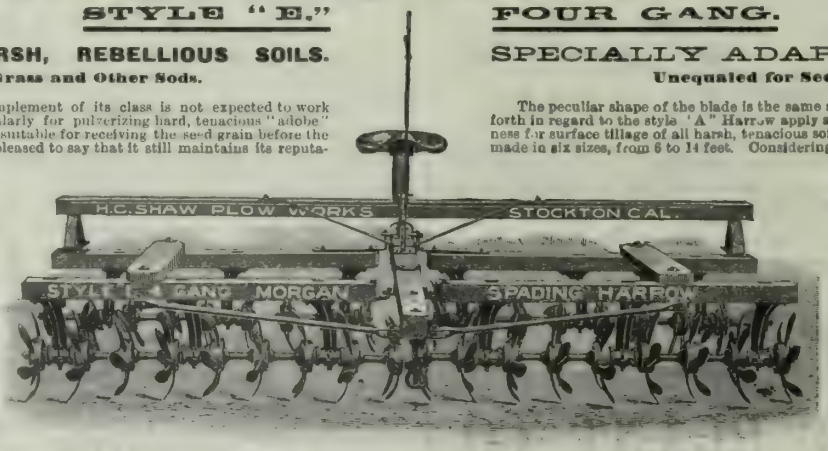
The front gangs throwing outward and the rear gangs throwing inward cause a most complete pulverization of all the surface and no furrow or ridge is left in the middle, as the rear gangs throw toward each other, leaving the whole "cut" of the harrow perfectly level and smooth.

The rear gangs of spades are so set that they run between the front gangs, thus presenting a cutting surface to the earth **every three inches** whereas any two-gang disc or other harrow does not present a cutting surface to the soil any nearer than six inches. Owing to its peculiar construction, the style "E" Spading Harrow will do three times the amount of execution that any other kind of implement can possibly accomplish in the same time. The style "E" is a double machine, and by reason of one set of spades throwing the soil one way and the other set throwing the soil in an opposite direction, it accomplishes its work at one operation, or in going over the land once only, where disc or other harrows could not do the work in going over the land less than three or four times.



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Unequaled for Seeding Summer-Fallow Lands.

The peculiar shape of the blade is the same as those used on the style "A" Harrow, and any "points" set forth in regard to the style "A" Harrow apply also to style "E." The style "E" is unrivaled in its effectiveness for surface tillage of all harsh, tenacious soils, and often proves an effective substitute for the plow. It is made in six sizes, from 6 to 14 feet. Considering the amount of work accomplished it is very light of draft. It loosens, crumbles and lightens the soil, does not pack it, and does what no other implement in the world will do, viz:—leaves the soil thoroughly pulverized, stirring it from the bottom upward, in fine condition and exposed to the enriching influences of sun and air. It thoroughly covers seed grain and is a most economical implement to use for this purpose alone. It will cover from a fourth to a fifth more seed than any other implement used in broadcast sowing

All of the materials entering into the construction of the style "E" Harrow being of the best obtainable, render it very strong and practically indestructible. No pole is used, as the harrow pulls perfectly "true" from strong draft irons. No unwieldy pole to be broken out or cause sore necks on the team. Write for prices.

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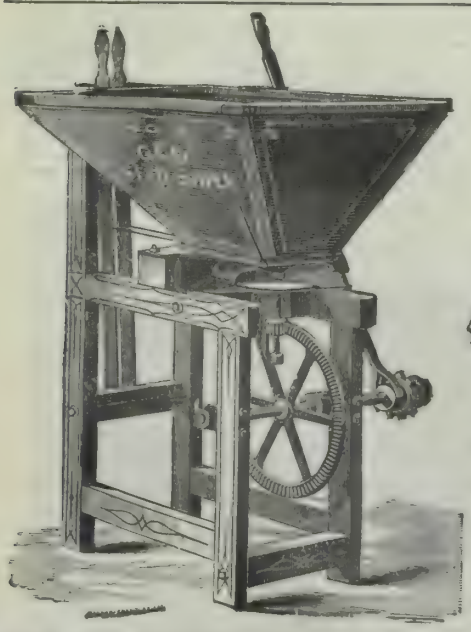

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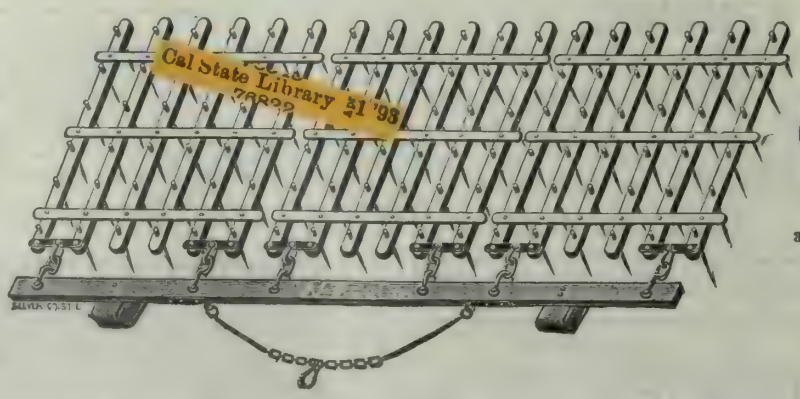
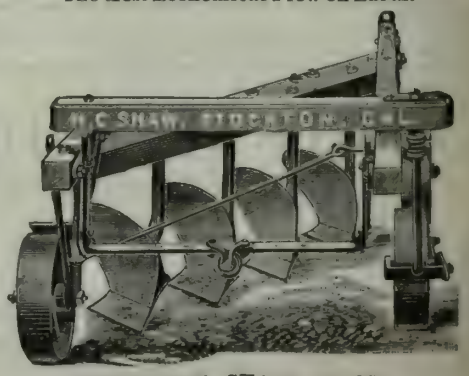


STOCKTON WOOD BAR HARROWS (WITH DRAW-BAR).



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PACIFIC RURAL PRESS

Vol. XLIV. No. 18. SAN FRANCISCO, SATURDAY, OCTOBER 29, 1892. THE DEWEY PUBLISHING CO. Office, 220 Market St.

The Discovery of America.

The readers of the RURAL PRESS cannot fail to be interested in the picture which adorns this page. It represents the three famous caravels which formed the fleet of Columbus on the voyage in which he discovered the Western Hemisphere. One can easily understand the terrors with which sailors of the 15th century regarded the unknown waters when he sees what poor resources they had in the way of vessels. The largest of these caravels, the Santa Maria or Capitana, was about 90 feet in length by 20 feet breadth of beam. The second, called the Pinta, was a smaller but much swifter vessel. The third and smallest caravel, the Nina (Baby), was scarcely larger than a launch of the present day. Neither the Pinta nor Nina were decked midships, and they were practically less seaworthy than the fishing smacks which ply their trade off the Golden Gate. On board these three vessels there were just 90 persons when Columbus sailed, an hour before sunrise on August 3d (the 13th, as we reckon it), 1492, from the port of Palos. A good deal of sentiment has been wasted in laudation of the sovereigns of Spain for their generosity in outfitting this little fleet, but their spirit in the matter loses its best aspect when we know that these three vessels were not their own, but were impressed into the service of the Crown for a time unlimited. The only resource which the owners had was an imperial order to the town of Palos to pay the rent of the Santa Maria and the Pinta for two months. It is easy to be generous in the way of lending ships when you have the power to lend somebody else's ship instead of your own.

THREE FAMOUS CARAVELS.

The discovery of America by Columbus was in one sense a unique event, but Columbus was by no means the first European who trod American shores. A colony of Northmen colonized Greenland in the latter part of the 8th century and dwelt there in large numbers for over 400 years. To this day the fiords of Greenland bear mute evidence in the form of ruined buildings of this old but long since abandoned colony. There is also abundant proof that there were frequent voyages about the year 1000 from this colony to a coast now known to be the western coast of the United States and Canada. The purpose of these voyages was for timber, which was not to be found in Greenland.

The records of these voyages have long been discredited, but recent investigations have given them new standing, and it is now demonstrated beyond question that Europeans, men and women, found their way to the eastern coast of the United States, not only one but many times during the colonial period of Greenland, and that at least one child afterward famous in the literary annals of Scandinavia was born on the coast of North America. The region thus visited was not suspected to be a continent; it was supposed to be an island which produced timber and was called by some of the adventurers "Markland," and by others "Vinland." While these visits, extending over a period of 40 years or more, were frequent, they were of no general consequence since they did not bring to the world the knowledge of the existence of what we now call America, and did not establish any permanent or even temporary contact between the streams of life in the Eastern and Western Hemispheres.

Although America was actually visited at a period anterior to Columbus' voyage, no ingenuity of argument can take from him the glory of an achievement which has and can have no parallel in the whole history of mankind. It is a mistake to suppose, however, that in the discovery of the West India Islands, and afterward of the coast of South America, Columbus brought the Eastern world into the knowledge of the Western world as we now know it to exist. The discovery of America in the broad sense was a work of gradual and orderly development, and was not completed in anything like the fullness of detail for 200 years after Columbus' voyage. Columbus died totally unconscious of the fact that his enterprise had yielded a new continent to the world and three generations had passed into their graves between the voyage of discovery and the time when America was known to be a vast continental mass and not a mere outpost of Asia.

It was another century before the interior of the continent had been traversed. The first work was done by Spaniards, the next was done by Frenchmen in penetrating the forests between the Gulf of Mexico and the Great Lakes, and the next was done by Englishmen or Americans themselves in pushing across the continent to the ultimate Pacific shores. It was indeed a long and multifarious process, pursued under difficulties which in this generation we can only feebly comprehend.

The 400th anniversary of the landing of Columbus at San Salvador, in the West Indies, which occurred on Friday last, was generally celebrated in the United States, and, very properly, the ceremonies were conducted with an idea to educational effects. There were magnificent demonstrations at New York and Chicago, and lesser celebrations all over the country, and in all of them the children of the public schools took the leading part. In San Francisco, in each of the schools, there were appropriate exercises in which the story of the discovery and its consequences was recited in plain terms and with ceremonies designed to impress the children with not only the facts, but the lessons resting upon them. It is the chief value of such occasions that they bring the minds, not only of children but of older persons, to reflections upon matters of vital historical interest, and thus, by increase of knowledge, tend to develop the mind and character of the country.

CHEAPER SODA.—Caustic soda has come into prominence among fruitgrowers' supplies because of its use in insecticides and otherwise. It will interest many of our readers, therefore, to be apprised that a North of England paper announces the discovery of a new process for producing caustic soda, chlorine and other chemicals direct from brine by electricity. The new process, it is asserted, effects a saving of 50 per cent compared with the cost of the old methods. Eminent chemists have pronounced the new process a success. If it practically proves thus, Californians, with the Pacific full of brine alongside of them, will have cheap caustic soda. It is too bad that the inventors cannot charm alkali out of the soil as well as draw it out of the ocean.

TURF LAW.—It appears after all that the jockeys are not the court of last resort in turf law, for it is telegraphed from New York that the general term of the Superior Court decided that Edward Corrigan's colt, Huron, should not have participated in the Futurity race run on August 29, 1891, and it reverses the order of Judge McAdam directing the Coney Island Jockey Club to permit the colt to enter the race. This, however, does not end the action, which is still pending over the matter.

THE CALIFORNIA BUILDING.—Captain Thompson of the State World's Fair Commission, who went to Chicago to attend the dedication of the Exposition buildings, reports that the main part of the California building is all inclosed and the contractors are now putting up the framework for the central dome. The building itself is very large and roomy, and a few days ago $13,000 additional was paid to the contractors in progress estimates of the total cost of $75,000.

THE FALL FLOWER SHOW.—The Chrysanthemum show of the State Floral Society will open at the Mechanics' Institute Pavilion in this city on the afternoon of Tuesday, November 2d, and continue until the evening of the following Friday. Present indications promise a show of exceptional extent and variety. The very creditable rose show of May last added much to the Society's reputation and a general disposition among growers of fine plants to participate is reported by the committee having the show in charge. Two very large collections, each covering 100 feet square of floor space, are promised. An exhibition of economic plants and other things of interest is expected from the State university.

The State Board of Horticulture also contemplates an exhibit, illustrating the character and scope of its work. Besides these there will come, of course, the great display of chrysanthemums, roses, foliage plants, ferns, etc., by by both professional and amateur growers. It is expected that the pavilion will be fully occupied by the exhibits, and that the fair will be, on the whole, the greatest of its kind ever held on this coast.

PACIFIC RURAL PRESS.

By The Dewey Publishing Co.

Office, 220 Market St.; Elevator, 12 Front St., San Francisco., Cal.

Annual Subscription Rate Three Dollars a year. While this notice appears all subscribers paying $3 in advance will receive 15 months (one year and 15 weeks) credit. For $2 in advance, 10 months. For $1 in advance, five months. Trial subscriptions for three months, paid in advance, each 60 cents.

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Half Inch (1 square)	1.00	2.50	6.50	22.00
One Inch	1.50	5.00	13.00	42.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type, or in particular parts the paper, at special rates. Four insertions are rated in a month.

Registered at S. F. Post Office as second-class mail matter.

Any subscriber sending an inquiry on any subject to the Rural Press, with a postage stamp, will receive a reply, either through the columns of the paper or by personal letter. The answer will be given as promptly as practicable.

Our latest forms go to press Wednesday evening.

ALFRED HOLMAN.....General Manager

San Francisco, October 29, 1892.

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BUSINESS ANNOUNCEMENTS.

[NEW THIS ISSUE.]

Nursery Stock—Riverside Nurseries, Lodi.
Spray Pumps—The Bean Spray Pump Co., San Jose.
Agricultural Implements—Truman, Hooker & Co.
Agricultural Implements—Baker & Hamilton.
Dairy Machinery—G. G. Wickson & Co.
Situation Wanted—Leo Essich, San Jose.
Foreman Wanted—Box L, Fresno.
Folding Sawing Machine Co., Chicago.

☞ *See Advertising Columns.*

The Week.

The weather has favored the late fruits. Warm sun and drying winds have attended the closing of raisin and dried-fruit curing. The same agencies have, it is true, dissipated much of the moisture from the October rains, but still the grass is starting in regions of heaviest showers and will hold its own probably until the clouds resume their kind offices. As we write on Wednesday, the signs indicate a change.

The fine weather is inducing an early start in orchard pruning on lands where the leaves have evidently finished their work for the season. It is not desirable to start pruning too soon, but where conditions favor it, much can be done now in dry long days better than in the short days and on the wet soil of midwinter. Where leaves are still green and wood soft, pruning should begin later.

The clear skies favor the political as well as the industrial workers. The sad death of Mrs. Harrison to which allusion is made in another column has demonstrated that the American people has indeed a heart full of respect and sympathy.

It is a decent thing and a creditable thing that the great contending political parties should stop in the midst of a heated campaign and cancel appointments for public meetings on the day of burial. In the face of bereavement the kinship of mankind is disclosed as in no other event. Perhaps it would be better did it more frequently appear, but better then than never.

Domestic Coffee.—We learn that a Missouri genius is besieging eastern newspaper offices with advertisements and samples of what he calls domestic coffee, offering to sell seeds from which any farmer can grow his own coffee. The proposition is full of humor when one knows that what he offers is beans—not the common bean, but the Soja bean, an Asiatic species which has been grown to some extent in the warmer parts of the United States. By planting these beans, which the Missourian will part with at an unflated valuation, the farmer is to be enabled to cut loose entirely from Mocha and Costa Rica and produce his own breakfast liquid. The Missourian seems to be infested with a vestige of a conscience, for he assures his victims that they can at least produce something as good as grocery-ground coffee, if not the finest. This, too, is rather a humorous point, for common grocery coffee is supposed to be largely beans, if not worse. The proposition is, then, that farmers grow beans, roast and grind them for coffee. They have always had this privilege, so the Missourian offers them nothing new. What he does offer is to sell them bean-seed at a hundredfold its value. In this portion of his work he is a fraud.

The Situation in Wheat.

The Rural has presented many facts of late showing that the world is likely to want wheat before another crop can be harvested. Statistical showings, which we have drawn from several authoritative sources, point to an unusually large inroad upon reserves and to very moderate supplies this year from most producing regions. If such views are true, and we have seen no question of their accuracy, the conclusion would be that the present disposition of the market and the prices at present outheld are not in harmony with the facts of visible supplies and prospective demands, which must be met by them before any more wheat can be gathered from the soil.

With these thoughts in mind, we sought an interview with Albert Montpellier, manager of the Grangers' Bank, well known to our readers as a constant student of conditions affecting values of our staple crops. Mr. Montpellier has exceptional opportunity for taking a broad view of such questions, and his bank is naturally interested in producers receiving full values for their products. We were not surprised that Mr. Montpellier should first call our attention to the fact that in only one year, probably, since the beginning of our export of wheat, had the value not reached $1.50 per ctl. That was in 1888, when the highest point was $1.45. If we contrast the conditions in 1888 we find that there was in that year a large carry-over from the previous year, and there was also heavy product generally in supply countries. As opposed to such affairs in 1888, Mr. Montpellier cited us to the following statement in an eastern journal:

> Europe will have to cross oceans for at least 225,000,000 bushels of wheat. The surplus of India has already been exhausted, and her exports have been 24,000,000 bushels. From the minor countries of the southern hemisphere she will not get more than 25,000,009 bushels, leaving 175,000,000 bushels to be supplied from this country and Canada. The United States will have to supply about 25,000,000 bushels of wheat to the West Indies and to South American countries, so that there is demand upon her and her Northern sister for 200,000,000 bushels of wheat. Canada can supply 15,000.000 bushels. Can the United States export the remaining 185,000,000 bushels? Her crop is 520,000,000 bushels, her home requirements are 370,000,000 bushels, leaving a surplus of 150,000,000 bushels. Every bushel exported in excess of that quantity must be drawn from the reserves which, though they are liberal, are not extraordinary. It is certainly poor business policy to sell reserves of wheat at phenomenally low prices. It has never been done, and it is not likely to be done this year.

This view agrees closely with that we have urged before. On general principles, when a commodity is unusually low its tendency is upward toward a normal value. Sometimes, for various reasons, this course may be slow. In the face of heavy crops and large reserves, we might expect exceedingly slow advance from a minimum. With moderate produce and moderate reserves the recovery should be rapid.

Upon these grounds, which seem indisputable, there seems to be no reason why wheat prices should hold long at the present low ebb. In view of the general situation, wheat is worth more, and the present quotation of $1.31 per ctl. is not a fair equivalent for the produce. With only a single year in our history when wheat has not reached $1.50, and that fact accounted for as above, there seems every reason to expect ere long that the wheat now in warehouse shall be worth at least the minimum of $1.50—the low mark among our seasonal top figures.

It is important to point out, in connection with the condition of the wheat market, the unusually large tonnage now in port available for wheat, and also the large number of ships on the way here and expected to carry the wheat of this crop. There are now 29 of over 55,000 tons under engagement to load, most of which will be afloat with cargoes in 30 days. There are also over 50 more ships in port, representing over 90,000 tons of tonnage that can be had for wheat-loading at any moment that parties agree upon rates. The *Bulletin* remarks: "At the way we have been loading wheat ships in the past four months there is enough wheat tonnage now in port to keep shippers equally busy for the next three months, and during that interval enough more will arrive to furnish the market with all the wheat ships needed for the following three months." This abundant supply of ships, and consequently low freights, furnishes additional reason for local values more in agreement with the situation.

It may, of course, require a little interval to overcome the present effort which aims to depress values. There must, perhaps, be some more acute realization of the fact that there is no visible supply which warrants continuation of low values. At all events, from all indications now discernible, it is a mistake to sell wheat at present prices. It ought to be worth more.

Surplus Horses.

Almost every farmer has his pasture overstocked with unsalable horses that are eating their heads off. Still we keep right on in the same old rut, hoping that the market will be better next year, and reading of the great prices that Stanford, Haggin, Winters and others have received.

The truth is that for the past 20 years production has been out of all proportion to demand. From 1870 to 1880 the census shows an increase of population of 29 per cent and an increase of horses of 44.95 per cent. During the last decade population increased 22.6 per cent and horses 44.59 per cent. In California the last decade showed an increase of population of 39.7 per cent and of horses a gain of 46 per cent.

In the meantime, extension of railroads has displaced many stages and freight teams; cable and electric power have almost superceded horse cars and made great inroads on livery trade; steam has invaded logging camps and grain fields and settlement is gradually reducing the range territory and the demand for vacquero horses.

On the other hand, the change that is taking place in irrigated sections from extensive to intensive farming requires not less than four times the horses, and the phenomenal records that our trotters and runners have made demonstrate the advantage of a climate where the colt's growth is never checked nor his exercise interrupted, and auction sales in the East of undeveloped colts of approved breeding have been very encouraging. These data explain the apparently contradictory remarks that "There is no sale for horses," and again, "A good horse will always bring a price."

The truth is, different classes of horses and less numbers are demanded, and as the times have changed we have not changed with them. On freight wagon, stage coach or horse car it did not make so very much difference about the style, disposition or breeding, so long as animals were tough and sound. Vacqueros consider that horse a poor, lifeless stick unless he does responsible bucking when mounted. For these purposes the original mustang stock of California filled the bill.

Now that their vocation is passing away, these horses still keep on increasing. All along the eastern slope of the Sierra Nevada mountains great herds of horses run upon the sagebrush range almost without cost to their owners. Some of them grow gray without ever having been bridled, while others are driven home every winter to be fed and handled. Some of them are the original thoroughbred mustang with bucking attachment, others the degenerate offspring of American stock and still others are grades from imported draft or running horses. Owners reason that it will pay them to raise horses at $25 each. Some of the bands have grown to be wilder than deer or coyotes. By cunning stratagem or tedious pursuit they sometimes manage to corral a part of them and select some worth driving to market.

Some have been sold at auction in the mountains during the past summer at prices ranging from $2.50 to $10. Others have been driven to the valleys and sold for whatever they will bring, which generally leaves the drover poorer than when he started. During the State Fair at Sacramento, 20 of extra quality that had been worked one season, brought from $10 to $20 each.

Some of these horses finally become gentle and serviceable, while others never get to be so safe, but that the risk one takes every time he hitches him up is more than the use of the horse is worth. Whenever a man buys one of this class of horses for other uses than those named above, he must feel that he is buying a small chance in a lottery. The money that he brings is not enough to make good the loss to the horse-market from this class of overproduction and the feed that he eats would have raised a good steer or six or eight sheep. Often the men who corralled them had to take the pay for their trouble principally in the fun attending the risk of their necks, and the dealer took his profit in horse-trading experience.

If there could be some concerted action for a general rodeo of these range horses and an agreement to slaughter for hides and soap-grease all animals not likely to weigh more than 800 pounds at three years of age in fair condition and also every one with a serious fault in form or disposition the balance would be worth more than the whole and slaughtered horses might be made to net two or three dollars each. Then geld grade stallions; there are too many any way and it is very late in the day to expect a profit from raising, inferior horses.

Present demands are for general purpose, heavy draft, coach, trotting and running horses about in the order named. The ten-acre fruitfarmer wants a horse large enough to draw a 10-inch plow to a good depth in orchard ground; one that is good to cultivate the raspberries or strawberries; that mother or the children can drive to town; that will stand quiet on the truck while he is gathering up his load

fruit and that will step off proudly on Sunday when the nily is in the Surrey riding to church.

By crossing upon the deavy draft mares something with le and action we will often get a horse answering these quirements, also, but less frequently, by crossing draft llions upon mares descending from trotting or running ock. There are large numbers from which this class of rses can be bred by giving proper care to keep the colts ntle and making intelligence and docility essential ints in the sire. Two men out of three who want to buy rses are best suited with one bearing about this deription.

For trucks, drays, busses, logging-teams, fire-engines, c., very heavy horses are demanded, but our importers of ercherons, Clydesdales and shires have been so enterprisg that it seems likely to be more profitable to use a part this stock for breeding a more active general-purpose orse, in view of a prospective oversupply of draft stock.

If you wanted a carriage team worth $1000, that would tract all eyes as you drove through the avenue or park, here would you go to buy them? Visit the State Fair, nd among the 800 on its grounds you would have found ery few.

Cleveland Bays and French and German Coach are just oming in to fill this demand. Their grades will be likely meet a large demand as general-purpose horses, and the ner individuals among the thoroughbreds to bring more oney than any others, save those whose speed has been roven or such as go upon sale with a popular pedigree. t is hard for one to name any who have made a financial uccess for a term of years from trotting or running stock, xcept large breeders of high reputation, who make one f those classes the leading features of their business.

In applauding the few who reach the top of the ladder ith their worldbeaters, we forget the many who have allen by the wayside. As we crown Nancy Hanks, Sunol nd Maud S. are retired with Sullivan, the once great, to omparative oblivion. Our columns are not supposed to ddress a constituency of sporting men, and we know of o way for the farmer or average horsebreeder to grow ich from fast stock, otherwise than by using them as a oundation for developing from coarser strains the good eneral purpose horse, for which there is so much demand.

Briefly, then, weed out the scrubs. Breed up the best. Use only the better sires. Raise a larger share of generalurpose and draft horses. Put your big money into coach orses. Let the professional horsemen produce the troters and runners at their breeding-farms, and go to them or top-crosses to produce general-purpose horses.

The Nicaragua Canal Again.

CARMEL VALLEY, October 24.

TO THE EDITOR:—Since last writing on this question I have had opportunities of making a more thorough study of the situation, and am much impressed with the necessity of having it built and owned and operated solely by the American people. The work is not only so worthy to be undertaken by this great nation, but it is so important that no further monopoly should be saddled on the shoulders of a long-suffering people.

To say that the American nation cannot do what a half dozen of its own citizens can do is simply to talk preposterous nonsense.

It would not seem necessary to make this a party issue. Just let the people make all their nominees for Congress undertake to support the proposition that the Nicaragua canal must be and shall be built, owned and operated by the National Government, for the use and benefit of all commercial nations, and for the profit of its sole owners, the great American people.

Why, Mr. Editor, we could in a year ship almost enough pears and apples (cold storage steamers) from California to London to pay the operating expenses and fixed charges on the whole canal.

There's nothing more worthy of the attention of every voter in America to-day than this eminently practical matter of getting this canal built without undue delay. And for this occasion just let the people all speak at once, and all speak as loud as they can, and Washington must and shall respond "Amen."

EDW. BERWICK.

Beet Sugar at the Los Angeles Fair.

LOS ANGELES, Oct. 13, 1892.

TO THE EDITOR:—When writing my report of the Sixth District Fair, I overlooked the notes I had taken with regard to one of the most interesting exhibits—that of Messrs. Oxnard of the Chino Valley Beet Sugar Co. It comprised beets and sugar in all stages, from the garden product to the fine article ready for some housekeeper's nice baking. An expert was on hand to analyze any beets brought to him, and his explanations of the new industry attracted much attention. The season just closing proves that beet culture on a large scale is a success at Chino, although the dryness of the spring was unfavorable at the start. I am told that some fields yielded the remarkable amount of from 20 to 25 tons to the acre, and that the net profits ranged from $50 to $75 an acre. The report is that general satisfaction is expressed by the farmers, and a largely increased acreage will be cultivated next year. Labor-saving machinery has been invented which will hereafter increase the profits. The output of sugar from the factory this season is nearly 7,000,000 pounds up to date.

C. S. BROWN.

A PRIZE OFFERED.—The Chrysanthemum Show and Floral Festival of the State Floral Society will open at the Pavilion next week, beginning Tuesday, November 1st, and continuing four days. Orphan children at various city asylums will be the guests of the Sherwood Hall Nursery Co. That firm offers a $25-prize to the child from any of the asylums who will make the closest guess of the number of petals in a single chrysanthemum bloom, to be displayed at the coming show, in the Sherwood Hall Nursery Company's exhibit.

From an Independent Standpoint.

In the Presidential election of 1884 the total vote of California was 196,957, of which the Republicans cast 102,406, the Democrats 89,225, the Prohibitionists 2960 and the Labor Party 1847. In the Presidential election of 1888 the total vote was 250,220, of which the Republicans cast 124,782, the Democrats 117,671, the Prohibitionists 6107, with 1660 votes divided among the American Party, Labor Party, etc. In the State election of 1890 the total vote was 252,457, of which the Republicans cast 125,129, the Democrats 117,184, the Prohibitionists 10,073. Thus, in '84 it will be seen that the Republican majority was 7855. In '88 the Republican plurality was 7111, while two years ago the Republican plurality was 7945. The State, therefore, is nominally Republican by from seven to eight thousand votes. But this year there are many uncertain quantities in the field. The People's Party may poll 5000 votes or it may poll 40,000 and nobody can tell which of the old parties will suffer most. Another uncertain quantity is the Prohibition vote. We have seen that in 1884 its total was less than 3000; in '88 it was just above 6000, and in '90 it was upward of 10,000. The Prohibition cause is certainly growing, and it is not unlikely that this year the fact that a California candidate is in the field will make a further notable increase in the total Prohibition vote in this State. Gains made by the Prohibitionists represent practically losses from the Republican strength. In view of these figures and considerations, one man's guess is about as good as another's. The best judgment, as near as we can discover it, is favorable to Republican success by a narrow majority. This view is extremely doubtful in consideration of the uncertainty of the strength of the People's Party. The protective idea, which has come to be the basis of Republican doctrine, is unquestionably strong in California, many of whose interests are, as our people conceive, bound up in the tariff policy. On the other hand, the party is handicapped by a record of servility to corporate interests. It is weak, furthermore, in the lack of really strong leaders. It is, indeed, a notable fact that nobody has risen to take the place of the old warhorses. The trouble is that the ablest men of the party are so connected with railroad or other corporate interests that political growth is impossible. In the meantime, the party gets along as best it can under the domination of men like Estee, Felton, Perkins et al—good men in their way, but not of an intellectual stature adequate to the task of broad political leadership.

The lack of men of the first class in the Republican ranks in California is made manifest by the prominence into which lesser men have intruded themselves. This latter fact, a thing impossible under better conditions, is a serious menace to Republican interests at this time. To be plain, the candidacy of Mr. M. H. DeYoung for the United States senatorship threatens to give the legislature to the Democrats. It is believed, in several counties heretofore surely Republican, that the legislative ticket has been "fixed" in Mr. DeYoung's interest, and in these counties the chances of Democratic success have been greatly enhanced. There are thousands of Republicans who would prefer to see a Democrat sent to the Senate rather than DeYoung. It is felt that his election would fix upon California a deep and lasting discredit, and that it would establish here a system of politics even more hateful than that which now prevails. The objection to Mr. DeYoung is not at all surprising. He has, in all the years of his business life in California, been a notorious "black sheep;" and though none have been more persistent in effort, he has failed utterly to establish himself in the public respect. By the better elements of the community he is regarded as a vulgar, pretentious and pushing man, not qualified either by ability or character for the U. S. senate or any other public post. His candidacy, which is entirely of his own motion, is resented as a gross impertinence. In San Francisco it is the chief motive back of a non-partisan movement which promises to defeat the Republican legislative and city ticket, if, indeed, it shall not succeed in electing its own nominees.

Mr. Blaine has written a letter to the *North American Review* in which he suggests that the apparent lack of interest in the present national campaign is due to a decline of partisan spirit in the country at large. This is unquestionably true. There is, indeed, nothing at this time to inspire partisan spirit, since each of the so-called "issues" is a mere matter of economic policy. Men find it difficult to "enthuse" over a question of business policy—as to whether or not there shall be a tax on tin or whether there shall or there shall not be a tax on sugar. If it is the purse that in the end rules the world, it is still principle which inspires and commands enthusiasm. If the RURAL has any particular hobby, it is with reference to the evils of partisanship, and it holds these indications of a declining party spirit as signs of a better era to come. The new ballot system will contribute largely to the spirit of independence among the people, because under it, it will be impossible to vote a straight ticket on the wholesale plan. Under this new system, the names of the candidates of all parties are placed on each ballot, and the voter is required to designate by special mark the particular man of his choice. Thus he is called upon, whether he wishes to or not, to examine his ticket carefully and discriminate between the names contained in it. This is of itself an immense step toward a better system of politics.

Caroline Scott Harrison, the wife of the President, died at the White House early on Tuesday morning. Mrs. Harrison was an excellent woman of the plain western type, the daughter of a schoolmaster, a good mother and a good wife. She was born in 1832, was married at the age of twenty, and her career was a purely domestic one, broken only by the incidents of her husband's service in the war and his political life at Washington. These incidents, of course, brought Mrs. Harrison into exceptional prominence, in which her bearing was entirely adequate and worthy. She had the good sense to attempt no innovations in the domestic administration of the White House, and was content to bear a quiet, womanly part as the wife of the President. There was no assumption about Mrs. Harrison. She was the daughter of plain, respectable people, and she grew up in the spirit of her family; and her character, solidly founded in Christian faith, stood the trial of such prominence as falls to the lot of few women in this world. The family life of Mr. and Mrs. Harrison is said to have been of the sweetest, and there are none who will not deeply sympathize with a man now stricken in the midst of greatness. In the darkened chamber where Mr. Harrison sits alone with his grief, how pitiful and empty must seem the dignities and even the glories of this small world. Among the many letters and telegrams of condolence which have reached the White House since the death of Mrs. Harrison, the following will by the public be deemed the most notable:

To Benjamin Harrison, Executive Mansion, Washington: I hasten to assure you of my sincere sympathy in the hour of your terrible bereavement. GROVER CLEVELAND.

FRUIT MARKETING.

Plans for Selling Fruit.

SAN FRANCISCO, Oct. 24, 1892.

TO THE EDITOR:—At the Marysville Fruitgrowers' Convention in 1891, a discussion led by David Lubin of Sacramento considered a plan for more direct and economical contact between producers and consumers of fruit. A healthy condition of the business was recognized as one in which the producer receives a paying return for capital and labor, wisely invested, and the consumer receives an article of fine quality in good condition at a price which encourages free and regular purchases.

The necessity of some plan by which perishable fruit should pass through fewer hands, reach the consumer in less time, in better condition, at less cost and with less loss, was generally recognized. The plan proposed by Mr. Lubin contemplated a manager and force of licensed vendors in each distributing city under pay and control of producer. It met with much favor, especially as coming from so practical a merchant and fruitgrower as Mr. Lubin; but as no measures have yet been taken, the importance of the matter seems to merit further discussion at the coming San Jose convention, Nov. 15th.

The writer bought five pounds of pears for a quarter in San Francisco, and two days afterward saw better fruit rotting under the trees at Santa Rosa because it would not pay to send to market. That was an isolated instance, or one that cannot be easily duplicated, and is enough to show that reform is needed somewhere in our system of distribution. If the grower dealt directly with the consumer, selling rapidly for good pay, there should be something left for the fruit when twenty pounds instead of five were sold for a quarter.

That his theories might be made to fit conditions rather than other theories, the writer interviewed five representative retail stands to-day (Oct. 24th).

Apples are selling at wholesale at 20 to 75 cents per 40-lb. box; at retail, the average of all quotations given were 5⅙c per lb., or $2.07 per box, or a profit of only 335%. Pears were selling at wholesale from 25c to $1 per box, and the average of five retail quotations was 6 1-5c per lb., or 310 per cent average profit. In one instance 566 per cent Muscat and Mission grapes are worth 20 to 40 cents per box wholesale. Six retail quotations averaged 5 1-6c per lb., 310 per cent profit. Again, Tokay grapes were quoted at 40 to 60 cents per box, and four retail quotations averaged 7c per lb., 180 per cent advance. Isabellas were worth $1 to $1.20 per box, and four retail quotations averaged 9¾c per lb., 77 per cent profit. Cornichons worth 50 to 75 cents per box brought an average of 6⅔c per lb., or 112 per cent advance.

These instances were intended to show average margins, and are nearly enough exact to demonstrate the necessity for improvement. One of these dealers had a very small stock of fruit and confectionery on Fourth St. near Market in a room about 12x16. Considerable of his stock was

spoiling on his hands. He said that his rent was $40 per month and sales $8 to $9 per day. For his own services and profits he realizes $50 to $75 per month. Another dealer at Valencia and 20th has a fine stock of fruit and vegetables and a room about 18x24. He pays $35 per month rent and says that his sales formerly averaged $60 to $70 per day, and now run about $15. Vegetables bring just about enough profit to make up for the small quantities that he gives away to buyers of fruit and for losses by decay. In the past five months' business his profits are mainly represented by $417 book accounts. He thinks that next year will be still worse, as he notices a disposition to save the little amounts due to small dealers in family supplies to accumulate funds to attend the World's Fair. The house did 10c worth of business from 1 to 2 P. M.

Free competition in this business seems to have multiplied stores and extended credits to the point where the farmer looks upon it as the poorest market in the country where he ships because the fruit will not bear eastern shipment, or is not wanted to can or dry. The buyer of family supplies has to pay such prices as to restrict consumption and encourage boarding rather than house-keeping, and dealers are holding their breath and waiting for the other fellow to starve out and give them a living trade.

As fast as one starves out, three come in to take his place, and our friend who keeps the corner fruit-store feels more and more nervous every time he sees or hears of the sheriff.

Under any plan similar to Mr. Lubin's, the retail dealer would seek some other occupation and the commission man would adapt himself to the new system or find other business. The fruit would reach the consumer in better condition at from one-half to one-fourth the present margin. With a large C. O. D. trade it seems as though a very small share of the present margin would carry on the business. Most of it now goes to pay rent and wages while waiting for customers.

THE ORDER SYSTEM.

In modification of Mr. Lubin's plan, allow me to suggest for further discussion, one in which the order system shall save a part of the work assigned to vendors. As in his plan, let uniformed solicitors canvass the city explaining system and soliciting patronage on terms as advantageous to consumer as producer. Keep business well-advertised. Invite housekeepers to send in orders on postal cards the day beforehand. Aggregate orders and invoice stock every evening. Buy enough to fill orders and meet retail demands when market opens. Have orders put up in delivery-wagons, one load for each ward, all ready to start the first thing in the morning. Let the deliveryman collect and take orders for next day's trade. Fix some plan by which those who asked for credit should make pay secure. It would be essential to success that a full stock be carried and delivery made as convenient for the housekeeper as possible, designing to make family trade a specialty. Some families would want orders filled with first-grade fruit, some with second and others with third. Order blanks should provide that quality be specified and price made to correspond.

Objection will occur that those already familiar with the trade would have previously started some such plan had it been practical. They have in the milk trade. Under present conditions any dealer starting such a trade could expect united opposition of competitors. Those now in the trade cannot be supported on a less margin. Indeed, if fruit were given them it is likely that enough more would go into the trade to keep about the same proportion on the verge of bankruptcy, and consumers would get their supplies no cheaper.

At present the keeper of a large boarding-house or hotel can go late into the market and clean up lots likely to spoil if held over, at rates below wholesale, and thus board families cheaper than they can buy their supplies at retail, and still make a profit besides paying rent and service. This undermines the home and one does not have to look far to see the train of evils inflicted upon public morality and prosperity by this system of trade, combined with other causes.

The question will arise, who is to "bell the cat" if those who understand the business dare not undertake it, and those who do not cannot hope to succeed? Every fruitgrower is interested in the accomplishment of any plan that will increase sales, provided they net a profit, and every housekeeper is interested in getting better supplies at fair prices. The number and capital interested have a common interest.

Let us call it the "Fruit Producers' and Consumers' Union."

It is designed to be of equal interest and benefit to both classes. As San Francisco is right here, and her market system needs reform worse than that of any other city, let it begin at home. Solicit subscriptions of stock from both classes. Both will be benefited. Let an executive board represent both classes. Fix upon some minimum subscription to stock which shall entitle holder to share benefits and profits. Receive all consignments from producing shareholders and credit them with wholesale market price on receipt; no dumps. Charge for goods a price that will safely meet all expenses and leave some balance. Lay aside a sinking-fund to provide for gradual increase of trade. On the 10th of each month divide balance on hand pro rata among producers and consumers. This system would make every member an advertiser, interested in the the success of the enterprise. Of course, the house would not always have trade for all that was sent in, and would sometimes need to send out peddlers or sell to canneries. On the other hand, they must expect to buy goods every day in the open market to fill orders. Housekeepers must have their orders filled satisfactorily. They cannot wait to buy cheap of a peddler who makes occasional visits with the surplus of a decaying stock or a glutted market.

The main success of the enterprise would depend upon the executive committee and the manager they should choose. It is to be presumed that the committee would be selected from such practical business men as were most interested in the success of the enterprise and that they would be able to retain some one whose experience and capacity qualified him to meet the opposition to be expected.

These suggestions are offered in no spirit of dogmatism, but with the hope that they may serve as the skeleton of a plan to be rounded into symmetry by the united wisdom of the many interested. F. S. CHAPIN.

Oriental Plums.

We give some interesting extracts from a paper read by J. L. Normand, of Marksville, La., before the Louisiana Horticultural Society at its late meeting, on "Oriental Plums." Mr. Normand has given much time to experiments with new fruits from Japan and China, and is considered authority on these subjects.

Of all fruits that I have tested on my experimental grounds, the Oriental plums stand at the head of the list as the most profitable for us to plant, either for market or home use. I have sent them by mail and express as far as New York and Chicago, also to California, reaching distant markets in good condition. In northern cities they command fancy prices, and I predict that it is but a question of a very few years when the Gulf States will take the lead in supplying early plums to the North and West. We are at least 1000 miles closer to the great markets of the United States than California, which gives us an advantage in cheaper freight rates, fruits reaching destination fresh and the first on the market.

The Bougoume and Japan apricots are the first to ripen, about the middle of May; the Bougoume, like the Kelsey, is sometimes caught by late frosts in full bloom; it blossoms a few days ahead of Kelsey, hence it would not be advisable to plant largely of that variety north of here. The Japan apricot is much later to bloom; this is the only apricot that has ever succeeded with me here in central Louisiana; it can be planted from the Gulf coast to Mason and Dixon's line. The above two varieties were imported by ex-Gov. Hubbard, of Texas, while minister to Japan. The Kume and Hanayune, catalogued by some nurserymen as Gold Dust and Hubbard, bloom too early. I have discarded them, and keep only a few trees to supply a few Northern hothouses, to be grown under glass. The Bontonkio No. 1, another early bloomer, I believe would do well to force under glass.

Now comes, in rotation of ripening, the Hattonkin No. 1, which ripens the first days in June, and sometimes the latter part of May. It is about twice the size of the wild-goose fruit, beautiful golden and transparent in color. This variety was imported by H. H. Berger, of California; it is not as prolific as Hattonkin No. 2. Next, Hattonkin No. 2, which ripens about 12 days after. The fruit of this variety resembles the Kelsey in shape, but a little more pointed, very prolific; it was first introduced by Frost & Burgess, of Riverside, Cal. The two above came to me under the name of Hattonkin, and when I saw they were different in habit of growth, fruit and time of ripening, I added No. 1 and No. 2 so as to distinguish them in their order of ripening. Next comes in probably the finest of all, the True Sweet Botan. The tree of that variety is a marvel of prolificness, fruit large, flesh yellow, solid, reddish, purple on sunny side, practically cuculio proof. It would be well to state here in answer to many inquiries and the prevailing impression that there is only one variety of Botan; this is a mistake, as I have three varieties of Botans that are different in fruit, as well as foliage and size. The Abundance, or yellow-fleshed Botan, Mr. Lovett, of New Jersey, has been accused of renaming. Mr. Lovett was right in giving it a name as the introducer. It is a good variety, smaller than True Sweet Botan, and the shape of the fruit is a little pointed, whereas the True Sweet Botan is round and the Whited Fleshed Botan has a white flesh. The leaves of the Abundance are lanceolate, not as broad as the other two kinds; these three varieties of Botan ripen about the same time. Then the Normand Japan. This variety was imported by myself; it came without a label, and, in the absence of a name, I have named it Normand Japan. This is my choice of all the Oriental plums, and fruited for the first time the last two seasons in this country. Fruit a beautiful golden color, a little larger and better than Burbank, shaped like an apple; fine flavor, tree of symmetrical growth and very prolific; ripens just after Sweet Botan. Next follows Burbank No. 1, much like the Sweet Botan in shape and color of fruit, a fine variety. The Burbank, which is different and which ripens right after the above, was first introduced by the great California experimenter, Luther Burbank. The Chabot and P. Simoni, the latter a shy bearer, but a fine fruit. Some years it bears better than others. Shiro Smomo, imported by Berckmans, of Georgia; this is a fine, deep purple plum, oblong, pointed in shape, with a beautiful lilac bloom, the brightest colored plum of all, presenting an attractive appearance. H. H. Berger describes this plum as white in color. Next the Bailey Japan, like the Normand, which came to me without name. I have called this variety after the editor of the *American Garden*. It begins to ripen the first days in July; it is different from any of the 30 varieties I have on my experimental grounds, fruited here twice this and last season for the first time probably in the country. Fruit almost as large as the Kelsey, nearly globular and overspread with a light cherry red; tree a prolific bearer, upright and vigorous grower. I shipped a box of Bailey Japan to Prof. L. H. Bailey in July, 1891. The following, under date of July 8th, was received: "The box of Bailey Japan plums came to-day; the fruit was ripe and delicious. It is certainly very attractive and luscious."

Continuing in rotation of ripening, the Satsuma Blood plum. This is a vigorous grower, with dark red bark and lanceolate leaves. It ripens fully two weeks before the Kelsey. The flesh of the fruit is solid, clear purple, from pit to skin, a fine shipping fruit; inclines to overbear; it grows as well from cuttings as the Marianna, and no doubt will be used largely as a stock to work other varieties on account of its deep-rooting propensity. The Marianna roots too much on the surface of the ground and its roots are torn by working in orchard, whereas the Satsuma Blood strikes roots like the LeConte pear—deep.

Lastly comes in the Kelsey. This was the first variety imported in the United States. It came by way of California, and was received by Mr. Kelsey in a bundle of Japanese persimmon trees, with no name attached. It is the largest and the latest of all the Japanese sorts. It is inclined to rot too much in wet seasons, and not a sure-cropper on account of its early blooming. Like the Bougoume, I get a full crop every other year.

I find that the Yellow Japan, Chabot and Hatankio to be the same plum under three different names.

The variety offered by Mr. Berckmans, under the name of Botankio or Hatankio, is the same as Hattonkin No. 2. The variety named Massu does not bear well with me; four-year-old trees bore a few small yellow plums. The variety which I got of Mr. Berckmans, under the name of Massu, is much larger and of a deep cherry red in color. As to prolificness, I am not ready yet to say until further tested, and here again the Yosobe from H. H. Berger and Berckmans are totally different—I prefer the Berckmans' strain. The one from Berger is small and round in shape, whereas that from Berckmans is medium to large and oblong in shape; both same color.

The following I have discarded as unprofitable, being perfectly barren. Some of them may be of European origin, as Mr. Berckmans suggested in his letter, viz: Longfruit, Engre, Ura Beni and Hoyo Smomo, Kelsey Prune and Ogon. Prunus Pissardi and Prunus Virgata are only fit for ornamental trees, the former for its dark purplish foliage. It produces an inferior fruit which ripens in May; the Virgata is good for its double blooms, which come out early in February. It looks like when one begins to experiment with fruits he never has enough. My hobby is on the plum. I have some 400 or 500 seedlings that will soon bear. I expect interesting sport from this lot of new seedlings.

TEXTILE INDUSTRIES.

Ramie Machines in New Orleans

WASHINGTON, Oct. 19.—The board of experts of the department of agriculture, who conducted the experimental tests of ramie machines last month in New Orleans, have made a report which is made public to-day by the department. The trial was for the purpose of ascertaining the capacity of American machines for continuous operation for a day of ten hours, instead of the usual tests of a few minutes. Only three machines were entered for the tests—the "Kauffman," the "J. J. Green" and the "Fremercy."

Owing to delays in transportation, the ramie stalks supplied by contract from the plantation of Colonel Gustave A. Breux in Lafayette were spoiled in transit, and the stalks used were obtained from Captain Willett near Algiers and from the government experiment station.

The experts report in detail what was done by each machine before clogging. Both green-stripped ramie stalks and freshly-cut jute stalks with leaves were tried. The experiments were soon abandoned on account of defects of the machines, and the board of experts decided not to estimate the run of any machine for a day of ten hours based upon these trials, believing the figures would be misleading.

Commenting upon the tests, Special Agent Dodge says: "While the figures for a day's work, based on the results of short running, are wholly misleading, it is interesting to note that the output of the Kauffman machine, during the 42 minutes of continuous work before it clogged, represents 4743 pounds of green stalks in ten hours of continuous action, or a little over two tons; with an output of 1257 pounds of wet ribbons, equal to about 420 pounds of dry ribbons, which weight would be considerably reduced after the loose hurds and woody matter remaining in the ribbons produced by this machine had been eliminated. In like manner, had the J. J. Green machine to run continuously for ten hours, turning out ribbons at the rate of speed shown when in actual operation (that is, deducting the 67 minutes spent in cleaning and readjustment), the output would have shown a capacity of 4821 pounds of stalks and 1232 pounds of wet ribbons, equal to about 410 pounds of dry ribbons. But both machines were unable to finish the 5000 pounds of stalks weighed out to each for the trial.

"The results of the New Orleans trials are satisfactory as far as they have demonstrated the status of the machines entered and established an American record that gives a starting point for future comparison, as the results of other trials are made known. One point demonstrated beyond all doubt at the recent trials is the perishable nature of green ramie, either stripped of its leaves or unstripped, and the experience recorded emphasizes the importance of taking the machine into the field where decortication of the green stalks is carried on. Two or three small bundles of ramie stalks, with leaves cut and tied upon on the Willet plantation before noon of the 29th, had begun to show signs of heating on the morning of the 30th, though the stripped stalks and the remainder of the unstripped stalks were in perfect condition.

"It is an interesting point for future experiment to determine whether ramie stalks can be perfectly dried in this condition for machine working in Louisiana, owing to the greater humidity of this section, compared with other sections of the country suitable to ramie culture. It would seem, from my observations in Louisiana, that slight kiln drying will be necessary, after at least ten days of sun drying in the field, in order that the stalks may be made sufficiently brittle for the machine to separate the woody matter readily, and the question of profitable cultivation is another problem which can be settled only by careful examination on a large scale."

PETALUMA GRANGE asks for the location of the next session of the State Grange in its prosperous town.

HORTICULTURE.

Hints for Beginners.

MODESTO, STANISLAUS CO.

TO THE EDITOR:—The subject of this essay—on the preparation of land for laying off and planting an orchard and vineyard, what varieties yield best results, pruning trees and vines, winter treatment of insect pests—embraces the whole foundation on which a horticulturist is to build his livelihood. If this foundation was more substantially laid than it is at present, in a good many cases, it would save half the hard work with which a fruitraiser has already to contend, besides making a big difference in his profits at the end of the season.

This essay, as I mentioned in my foregoing one on fruit-picking (RURAL PRESS, July 23d) is more for the small raiser who is thinking of extending his vineyard and orchard, although his experience with what he has already under cultivation ought to teach him what would bring him the best results in his later planting, the extension of his orchard and vineyard. I write also for the man who is what one calls *new* to the business and thus liable to make a good many mistakes, and these mistakes are liable to give him a very poor opinion of fruit-raising as well as a very poor profit in his returns. I am but an employe, so will just give my experience I have gained in the localities I have worked.

First of all, we have to find out what we desire to grow, for it is a sure thing, starting in a small way, one cannot grow everything, so you must confine yourself to two or three varieties, and not two or three dozen as I have seen in a good many orchards and vineyards. That notion is, however, dying out, and it is a good thing, too, for it is a poor speculation at its best.

Having found out what you desire to grow, find out the land and location suited best for these varieties. Of course trees and vines will grow almost anywhere where there is soil, but how will they bear and what sort of a living will you make off them? It is a common mistake with a good many to think that just where they buy a few acres of land anything they plant will grow and bear profitably. How many, after four or five years hard toiling, not forgetting the expense they have been put to, find they have planted varieties totally unfit for that locality; whereas, if they had planted something suitable to the soil, they would have had everything to make life happy and prosperous. I would sooner have 10 acres of first-class land at $200 per acre than 50 or 100 acres of poor land at from $20 to $50 per acre. Of course there are a good many favored spots not yet planted to fruit, still it does not pay a poor man to experiment with it to find out those spots. Having 50 or 100 ares of poor land, one has to toil the whole year and then not have good results; but on ten acres of good land it is the reverse. It is a common saying that a man with 10 or 20 acres can do all his work, then he can go and work for outsiders; but the trouble is when outsiders want work done, such as pruning, etc., the 10 or 20 acre man's pruning, etc., requires doing also, and so on. Thus, when he has finished, he will find the outsider pretty well finished too. There are times when he can go out and work for others, still 10 or 20 acres of good fruit requires a considerable amount of attention to bring good results, and he has to make every tree and vine do its share in bearing. By the time he has done that he will find he has not much time for helping a neighbor out unless he is considerably behindhand with his work.

In regard to preparing the land for laying off and planting trees and vines, it requires a lot of forethought, and everything that is to be done ought to be done thoroughly, which will save a lot of annoyance in after years. There are one or two things to be considered in planting; that is, to have all rows in a perfectly straight line; to economize the land as much as possible, yet leaving plenty of room for working the same. It is a common mistake in planting trees and vines too near a fence, etc., for it causes a lot of work in after years in working a team around them. I would advise a man to write to the "Secretary of the State Board of Horticulture" for a book on the prune industry of California, which will give him a general idea how to plant an orchard and prepare the land for the same. One cannot fully explain everything in an essay; it reqnires a book, and a pretty big one, I find; also for laying out vineyards I have gained some very good ideas in the State Board of Horticulture's reports, which one can obtain free by forwarding the postage. The State Board of Horticulture has been and is doing lots of good and deserves all the support it can obtain, for one can gain any information from them appertaining to fruit-raising by simply writing, so one need not long be in ignorance on any subject.

I will not give an elaborate plan for laying out an orchard and vineyard here, thinking an owner can gain a better idea from the books published by the above-named board or by seeing how one of his neighbors, who is experienced in these matters, manages it. There is in all communities one or more fruit ranches that one generally takes as an example to follow in regard to ways of doing work, etc., and a very good way, too, I have found out, so I will just confine myself to a few suggestions that one is liable to forget in starting out.

In planting an orchard, be sure and have each variety in its separate place and not mixed, for I can tell you it is in a fine pickle when bearing. It takes one man to hunt up each variety, there being a few trees here and a few there, which soon cause no end of bother. I have worked in one or two such orchards and vineyards, so can judge pretty well the result. Also, be sure and have each variety true to its name, for it is, I will say, rather humiliating for a beginner, when his trees arrive at a bearing age, to find he has totally different varieties from those he ordered. More especially, vines are apt to be this way. If there are only a few here and there, they can be either grafted or budded, thus making the varieties solid.

Trees are usually planted from 20 to 30, even 40 feet apart, according to variety. Vines it is usual to plant from 8x12 to 10x12 feet, both making a nice vineyard, allowing of a truck or sled for sulphuring, etc., to pass down the rows, which is a great consideration. Having a vineyard in blocks of about 25 vines each way, then an avenue of 16 feet is a great saving in packing the baskets when full and ready for the wagon to haul them to the packing shed.

If possible, have a row of trees, say walnuts, figs or any such variety, around the outside edge of the vineyard, as it gives a decidedly pretty appearance. Every one has his own particular taste, so must proceed accordingly; but one must not forget to bear in mind, when planting, to leave plenty of room (I do not mean too much) for plows, cultivators and wagons to turn around anywhere on the edge without running over young trees or vines, thus causing a lot of damage, besides spoiling the looks of the place. When planting, it may look a lot of land to leave for turning, etc., but in a few years a man generally wishes he had left a little more room, for trees and vines will grow if properly attended to.

As for what varieties give the best results, it is a pretty hard matter to determine, as each locality has its specialty; but taking fruit as a whole for shipping, drying or canning, I think the following varieties are among the best known and tried fruit:

Cherries—Royal Anne, Black Tartarian, Napoleon Bigarreau and Black Republican.

Apricots—Royal and Blenheim. The Moorpark is considered a shy bearer and requires a considerable amount of experimenting with to determine the best way to make the tree bear so it would not be a poorman's tree, as it would not be sure; otherwise it is a good all-round apricot.

Peaches—Alexander and Hale's Early are considered the best early peaches, although one has to make sure he has such a place as Vacaville and one or two other favored localities to grow them, otherwise he will find they will come in a little too late to fetch top prices. Early and Late Crawford, Susquehanna, Orange, Lemon and George's Late Clings, besides other innumerable varieties, each has its peculiarities.

Pears—Bartlett and Winter Nelis are two safe varieties, and will grow pretty well everywhere.

Prunes—French, German, Hungarian, Tragedy and Silver are among the chief varieties, each requiring its special locality to grow and bear to advantage.

Plums—Yellow Egg, Bradshaw, Clyman and Columbia, besides several others.

As for grapes, I prefer Chasselas, Tokay, Muscat, Cornichon and Emperor.

There are hundreds one may say of other varieties, so it would be pretty hard if one could not find something out of the long list to suit his locality and land; but be sure and get the right and you will come out right, otherwise it will be the reverse.

Having all planted and everything in shape, perfectly understanding that thorough cultivation has been the owner's aim from the beginning, we have that all-important matter of pruning before us—a subject that has caused more discussion and variance of ideas than any other branch of fruit-raising. Notwithstanding all this discussion, I find pretty well everyone prunes, in the main, the same. Here and there it will be different in regard to high and low pruning.

As a general rule, tree-pruning starts as soon as the leaves are off. As an employe, I prune as my employer desires, which is generally right so will not discuss this delicate subject. For a small fruitraiser, I would advise him to visit a neighbor who is experienced in the business, and he will soon put him in the way of it; the same with pruning vines, which generally begins about the last of December or the beginning of January, but where there is danger of frost, one had better start a little later. It will require a little more help; still, you stand a better chance of saving your crop. Do not have anything to do with those so-called professionals in pruning, grafting, etc., for I have generally found they know too much and want things all their own way, so will not be taught anything. Pruning, as all else in fruit-raising, requires common sense and good judgment, together with a knowledge of the peculiarities of the locality in which the owner happens to be located, and each variety of trees and vines requires its own special way of pruning, so one cannot lay down any hard and fast rules regarding it.

SPRAYING.

Although every precaution is generally taken to see that trees are free from scale and other pests when taken out of the nurseries preparatory to planting, still prevention is better than cure, so one needs to spray at least once a year to keep the trees free from all pests, for they are liable to turn up at any time. We resort to what is called winter-spraying, or while the trees are dormant and the heaviest rains are over. Of the many solutions used, I think the lime, sulphur and salt solution is the best for general purposes. The following formula, if properly mixed, will have the desired effect:

Unslacked lime	40 lbs.
Sulphur	20 lbs.
Salt	15 lbs.

Use water to make 60 gallons. Apply warm.

Directions.—Place 10 lbs. of lime and 20 lbs. of sulphur in a boiler with 20 gals. of water and boil for about an hour until the sulphur is thoroughly dissolved. Then place in a cask 30 lbs. of lime, pouring over it enough hot water to slack it, also adding 15 lbs. of salt. When this is dissolved, add it to the lime and sulphur in the boiler and boil for about one-half hour longer. Add sufficient water to make 60 gallons. There are various machines for spraying, each having its advantages, so an owner had better obtain one suited to his requirements and pocket. The spray ought to be applied when the dew is off the trees and should be done thoroughly all over the tree. I have seen the top part of the limbs sprayed, while the under part had not a drop near it, thus being only half done. The owner needs to follow his men right around, or even be helping, then he will be sure of good work, otherwise he will have to take his chances whether it is done properly or not.

A man starting a young orchard and vineyard will find that he will require an unusual amount of patience, for it is rather a tedious process working and waiting for his trees and vines to come into bearing. If he has paid particular attention to all the little details which make the whole, and in likewise doing everything thoroughly, he will gradually, not suddenly—as some have the idea—increase his income from the fruits of his labor until after a few years he will have a place that he will be proud to show to any one and to give strangers the results of his experience. Then he may forget the drawbacks and disappointments, but should not forget the hard work he had in getting his home to his idea of perfection which it has at last attained.

FELIX FOREMAN.

The Fruitgrowers' Convention.

SAN FRANCISCO, CAL., Oct. 20, 1892.

The sixteenth State Convention of Fruitgrowers of California will convene at San Jose at 10 o'clock A. M. on Tuesday, Nov. 15, 1892, and will continue in session four days. The citizens of San Jose and the members of the State Board of Horticulture cordially invite fruitgrowers, shippers, packers, nurserymen and others interested in horticulture and kindred pursuits to be present at said convention and to participate in its deliberations.

Every effort will be made to insure a large attendance, and it is hoped that the meeting will be of interest and profit to all. A large and fine exhibit of fruits and products of Santa Clara county will be made, and it is especially requested that samples of fruits, either fresh or dried, be brought for comparison. Packages of fruit may be sent, addressed to the chairman of exhibit committee, San Jose.

The Southern Pacific Company will allow return tickets at reduced rates from all points on their lines to San Jose; *provided*, not less than 75 persons make the trip, and a receipt for the ticket purchased to be taken at starting point. This will be countersigned by the secretary at the convention, and will entitle the holder to a return ticket (allowing 48 hours after adjournment to start for home) at *one-third* the regular rate. Hotel accommodations are ample, and reduced rates will be allowed. Many valuable essays will be read, and will be followed by general discussions of the wide and diversified field of horticulture. It is impossible at this time to make a complete announcement of a program that will include the entire list of writers, but it may be sufficient to say that a rare treat of valuable essays and discussions, excursions, etc., await those who attend. All will receive a cordial welcome.

ELWOOD COOPER, President.
B. M. LELONG, Secretary.

THE DAIRY.

A Ration for California Cows.

TO THE EDITOR:—D. L. G., of Los Angeles, writes to *Hoard's Dairyman* for advice upon the subject of milk production and says: "Am selling milk in the city and want to learn all I can about the dairy business, how to produce the most and best milk at the least possible expense."

He then goes on to say that he can have green feed nearly all the year, green corn from first of June till middle of November and alfalfa fit to mow for eight months in the year, yielding as much as 12 tons of hay per annum; sugar beets are now being planted which will be fit to use in the spring, so that D. L. G. is exceptionally well and favorably situated in regard to the production of green feed for his cows, and the best kind of hay at reasonable prices. He asks: "What will make the best and cheapest ration: Alfalfa at $7, corn with ears at $2, pumpkins at $2, watermelons at 50c., bran at $20, rolled barley at $21, oilmeal at $45 per ton? Have sown peas and wheat to feed later. Which will be the best to sow with peas—wheat, oats, barley or rye?"

It is doubtful if watermelons are worth the money as cow-feed, though, as an auxiliary to other foods, pumpkins may be, and probably are, as better results are generally obtained by the use of some vegetable, along with hay and grain, than without.

The price of oilmeal is prohibitory to its profitable use in any quantity.

The *Dairyman* gives the following answer:

In making up a ration from the foodstuffs named, we must be governed by the digestible nutrients contained in each, as well as by cost.

We are sorry to say that the tables by different analysts do not entirely agree, but we give below the latest figures which have come to hand, most of them collected from tables given by Prof. Henry in the *Dairyman* and *Breeders' Gazette*:

POUNDS OF DIGESTIBLE NUTRIENTS IN 100 OF FEED.

	Protein.	Carbo-Hydrates.	Fat.	Value.
Alfalfa	7.6	37.8	1.3	$ 9.00
Barley	9.5	57.4	2.3	13.50
Bran	12.6	41.1	2 9	14.00
Full corn	4.0	47.0	1.8	8.00
Oilmeal	27.0	32.2	7.1	24.00
Pumpkins	.9	3 97	.56	1.10

For a general daily ration we would recommend: Fifteen pounds full corn, ten pounds alfalfa-hay (or their equivalents when fed before drying), and from five to ten pounds of bran.

The above, no doubt, is a very good ration, both practically and theoretically, for the production of milk, yet in practice, we think five or six pounds of bran a day enough to feed to a cow, and it is better to use some other grain-feed to make up any additional nutrient that may be required. It will be observed that barley has a lower *theoretical* value in the above table of nutrients than bran. Can any practical dairyman give us his experience and observations in regard to the comparative value of the two for the production of milk?

As far as our own experience goes to prove anything, it is that barley is the superior food. Finely ground and

mixed with cut hay, as it is best that all meals should be, it produces not only more milk, but better milk, than bran, consequently we look upon it as the cheaper food of the two, at the prices named by D. L. G., and we have never failed to use it freely, with satisfactory results, at anything like the price named. There is also the advantage of having cows in better condition when fed on a fair proportion of barley-meal than they can possibly be when fed on bran as the only grain-ration, other things being equal.

It is true that the quantity and quality of the hay fed will have great influence on both quantity and quality of milk, as well as on the condition of the cows.

Alfalfa-hay, at $7 per ton, is a very cheap food and the best hay we have for the cheap production of milk. As to limit in quantity there is none, except the appetite, to the cow that is giving a large quantity of milk; she should, at any rate, have all she will eat.

There is some prejudice against alfalfa-hay, it is true, among milksellers; whether well founded or not, we cannot say. Perhaps it is best used in moderation, though our own experience, by its free use either on pasture, or hay, has never given cause for complaint in the milk sold.

The conditions and surroundings under which it is used, as well as the proportions and kind of other food with which it is fed, all have their share of influence, down to the smallest detail, in producing a sweet, clean and wholesome article, all of which should be considered and attended to.

"Bran and middlings make plenty of milk, but keep the cows poor; we must use some stronger feed besides," said an experienced milkproducer to us. That was before the days of oilcake in California, but we had other feed that was proportionately, compared with the price of milk, cheaper than now, in either ground oats or barley and sometimes wheat, which to-day, in some parts of the State, is the cheapest and best food for milch cows that can be obtained.

On page 315 of the RURAL is Prof. Henry's advice to a San Mateo county dairyman. From the above it will be gathered that we object to the large proportion of bran, ten pounds a day, with no additional grain-ration, except two pounds of middlings, which he recommends. No doubt but that bran is the cheapest food named in the list given by the San Mateo dairyman, but we are strongly inclined to think that his cows will do better by either substituting some ground barley or two pounds of oilmeal daily for a part of the bran.

Professor Henry concludes, however, with a piece of advice which has the ring of sound, practical sense; it is this: "If the above table is used let it be only as a guide, the feeder carefully studying the likes and dislikes of the animals and catering to them. For the most part the cow is about as good a judge of good milk-producing foods as we can find."

This is in itself worth a volume of theories improved by practical experience.

We can never make the cows digest their food in exactly the same manner that the chemist does it, neither can we ever make any two animals make exactly the same use of any one mixture or ration. DAIRYMAN.

Separation of Butter from Milk.

Bulletin No. 20 of the Pennsylvania State College Agricultural Experiment Station (State College P. O., Penn.) describes a series of experiments in the separation of butter from milk by means of the hand or "baby" separation. Following is a summary of the result, with a brief account of the principles upon which the working of the separator depends.

The mechanical separation of cream from milk by means of the centrifugal separator has become almost universal in large creameries, the cost of the machines and of the power required to run them being more than offset by the greater yield of butter obtained, the smaller amount of space required, the saving in ice, and the greater certainty and uniformity of operation.

Within a comparatively short time several small separators have been put on the market, which, it is claimed, can be operated by hand and are suitable for the use of the private dairyman. This station has recently completed some tests of one of the best known of these hand-separators, manufactured by the De Laval Separator Co., and called by them the "Baby No. 2." This machine was kindly placed at the station for test by the company. The results of the test were briefly as follows:

1. The skimmilk contained, in most cases, less than 5-100 of one per cent of butter fat.

2. Out of the total possible amount of butter but 9 10 of one per cent was lost in the skimmilk, and but 3¼ per cent in the skimmilk, buttermilk and mechanical losses, or, in other words, 96¾ per cent of the total raw material (butter-fat) was recovered in the finished butter.

3. It is estimated that the saving by the use of this machine as compared with the use of cold deep-setting, will, in one year, with a herd of 20 to 25 cows, equal three-fourths the cost of the machine. [We presume this means the actual saving of butter-fat; the incidental saving of labor, etc., would make the machine pay for itself much sooner.]

4. The machine has proved very satisfactory in the regular work of the station creamery.

5. The use of handpower is only to be recommended for small dairies.

HOW A SEPARATOR WORKS.

The fat of milk is its most valuable constituent, and the one which the buttermaker aims to separate from it as completely as possible. This fat exists in the milk in the form of extremely minute globules floating in a heavier liquid. When we let milk stand undisturbed, these minute globules rise toward the top and accumulate in the upper part of the milk, crowding out a considerable portion of the liquid in which they are suspended. This upper part of the milk, where the minute fat globules are the most numerous, is the cream. It is plain from this explanation that we may get more or less bulk of cream from the same milk according to the time allowed for the globules to rise and according as they are able to crowd out the liquid more or less completely; consequently the bulk of the cream is a very inaccurate measure of the butter value of milk, a fact which has been proved by abundant experience.

The object of a separator is to hasten this process by substituting centrifugal force for gravity. If we swing a bucket of water rapidly around at arm's length, we feel a pull on the arm. This is caused by the so-called centrifugal force, the force which tends to make a revolving body move away from the center of motion. The faster we swing the pail the greater is the pull, and accurate experiments have shown that the centrifugal force increases as the square of the velocity—that is to say, if we swing the bucket twice as fast the pull becomes four times as great; if we swing it three times as fast, it becomes nine times as great, and so on. If we were to put milk in the bucket in place of water and swing it very fast, the centrifugal force would pull the milk against the bottom of the bucket just as gravity does when the bucket is at rest, the only difference being that, if the bucket were swung very rapidly, the centrifugal force would be much greater than gravity, and the pull on the milk correpondingly greater. The result would be that the cream would rise to the surface of the milk just as it would under the influence of gravity, but more rapidly in proportion as the centrifugal force was greater than the force of gravity.

The earliest centrifugal separator was constructed exactly on this plan, the milk being revolved rapidly in small buckets by means of suitable mechanical contrivances. In this apparatus the cream could be raised in from 15 to 20 minutes. The next step in the development of the machine was to replace the series of buckets by a bowl rotating about a vertical axis. The next step forward, and the one which made the separator of practical value, was the construction by De Laval, in 1879, of a machine for continuous separation—that is, one into which milk could be run at a regular rate as long as desired and separated into cream and skimmilk.

RURAL IMPROVEMENT.

The Value and Importance of Good Roads.

[An essay prepared for the meeting of the State Grange by A. P. Stanton, of Aptos, Santa Cruz County.]

No man who thinks for the benefit of himself, his neighbors or his country can controvert the statement that we need better roads. The discussion in regard to public roads, looking to the improvement of all the highways, is sure to continue until a great and permanent reform is secured. One great deterring element has been the fact that the farmers have turned their attention to this matter more in the abstract than the concrete. Had it been otherwise our country roads would long ago have been rebuilt in accordance with a system which would give them what may be called a scientific basis and a scientific superstructure. Just as soon as our farmers determine that they must have roads which can boast of all the modern improvements, road-reform will speedily become an accomplished fact.

It is no longer necessary to argue that good roads are important to a country, that they constitute an immense agency in the progress of civilization, or even that they have a distinct, an appreciable, economic value. All of this is accorded by men of intelligence.

"The road," says Bushnell, "is that physical sign or symbol by which you will understand any age or people. If they have no roads they are savages; for the road is the creation of man and a type of civilized society. If you wish to know whether society is stagnant, learning scholastic, religion a dead formality, you may learn something by going to universities and libraries; something also by the work that is doing on the cathedrals and churches, or in them; but quite as much by looking at the roads, for if there is any motion in society, the road, which is the symbol of motion, will indicate the fact."

To the man who reads to consider and who travels to observe, these facts will become doubly impressive. The ancient Romans, in the greatness of their power, taking heed of the splendid example set by the Carthagenians, laid a network of roads through their territory, so perfect that many of them are in use till this day. The influence of that work is imperishable and it will forever stand as a mute witness to Roman intelligence. In 1835 the English parliament awoke to the necessity of good roads and passed the general highway act. From that day began the systematic and intelligent management to which the superior quality of the English roads is due. In Ireland the roads add not a little to the delights of the picturesque Killarney district, and are everywhere found by the travelers who visit that beautiful country.

In France you may drive from Paris to Orleans, to Bourges, to Nevers, and across the Jura mountains to Switzerland. You may journey across Switzerland and continue on into Germany and follow the Rhine and its valley of legends till you reach the shoals of the North Sea. You may vary this journey in whatever way your inclination may urge; you may travel the roads of Scotland, Italy, Austria, Belgium, Baden, Spain, or Scandinavia, and you will everywhere find that the public hand has been industriously directed to the care and keeping of the common roads. Each of these countries has established within its civil government a department having exclusive control of the more important highways, and in most cases also a supervisory management of the parish and branch roads, which connect the smaller towns and serve as feeders to the main lines.

Varying, of course, in some degree as to details of management, there is still a practical unanimity among the great nations of Europe in this policy of the government control. It began with the popular recognition of two facts: (1.) that the public road, like the public postoffice and courthouse, is public property, established by law for the use of the people; and, (2.) that the extravagant waste of time, labor and property which had been for centuries imposed by the use of mud roads, could only be checked, and the true resources of the country brought out, by the construction and maintenance of good roads under an intelligent head.

This was the doctrine of Tresagnet and of his English deciples, Telford and Macadam, and events have verified it. Tresagnet learned from the works of the Romans, that the road was a structure; that it should have a foundation; and, adding to that the light of later knowledge, he built hundreds of miles of better roads than the Romans ever knew. Why cannot we take advantage of this and do likewise?

Strange as it may seem the farmers of the United States, as a rule, take less interest in the matter of road improvement than any other people. Very few of them are travelers, and but a small proportion realize how bad the country roads really are.

Postmaster General John Wanamaker recently wrote as follows on this subject.

"Looking at it from a postal standpoint; enlarged free delivery, or anything like free delivery, will have to be postponed until there are better facilities of communication through the rural and sparsely settled districts. The experiments that we have made in the smaller towns and villages have proven the practicability of greatly extended free delivery, but without good roads it must necessarily be limited to the small towns."

An extract from a letter written recently by Major-General O. O. Howard, U. S. A., is as follows:

"That good roads, in good condition, are always of great value from a military point of view is plain enough; for active operations, the prompt transportation of material and the moving of an army would demand it. The greatest benefit, however, will be, as it should be, to farmers who will everywhere, doubtless, be willing to pay a part of the expenses—an expense which is in fact, like that of a waterway in a dry country, a profitable investment. The saving of time and means in the single item of transportation will be of great moment. Our farming interests are always the basis of the public weal. Here the national wealth originates, and as the State owes so much to the farming community, it is simply common sense to furnish the farmers as far as practicable excellent highways."

We must not alone measure the value of good roads in the sense that they will afford us a more rapid, cleanly and pleasant mode of transportation for people and merchandise, but we must also look to the saving that will be made in the wear and tear on vehicles, harness and stock. The farmer with one team of two horses is able to move on a good road more than he could with four horses and a wagon of much greater strength on a poor road. This has been tested many times. Farmers are constantly in the need of highways to transport their property and to move themselves from place to place. The average farmer is five miles distant from the nearest railway station, and his surplus produce must be moved that distance year after year. If he were to compute the saving that he and his neighbors would have by reason of first-class roadways they would discover that it would amount to more than the expense of putting the roads in good condition and keeping them so. He would not require so many horses or so much harness, nor so many teams, and the labor for caring for and conducting them would necessarily be lessened in proportion.

In France one horse pulls what would be considered a good load for two in America, and the only limit to the load is reached when there is no space left to stow any more burden. Naturally upon a highway that is smooth and well surfaced the strain upon harness is reduced to a minimum, and as there is no jolting the wear upon a wagon is but fractional. It is probably unnecessary to refer to the peace of mind that will ensue with the introduction of good roads.

With the subject of having good highways comes the thought as to their expense and the future cost of keeping them in repair. Nowhere is the art of road-making and maintenance carried to such perfection as in France where the necessity of constant supervision and prompt repairs is fully appreciated. Her roads have a length of 200,000 miles, of which more than 120,000 miles are macadamized. They have cost nearly $600,000,000 for construction, and the sum of $18,000,000 (or about three per cent of the first cost) is annually spent for their maintenance. Until we are prepared to spend the necessary sums for solid construction and incessant maintenance we cannot have good roads. The estimated cost to each inhabitant for the maintenance of a square mile of roadway in France is forty-eight cents. The estimated amount in other European countries is about the same, and the figures are considerably less than the average in the United States with our dust and mud roads. It has been estimated by competent authorities that $400,000,000 would give us a good system of common roads all over the country. This is a great deal of money but it is not great compared with the value which would be enhanced by its expenditure. And it is further estimated that the cost of repairing and maintaining a highway properly constructed in the first instance ought not be greater for a year than one per cent of its first cost. Even if three per cent be reached the figures are not exorbitant. In the three items of horses vehicles and harness the increased value of these properties would more than pay for the improvement.

The enhancement of the value of real estate would be so great that these items would seem insignificant. In one neighborhood alone—that of Union County, New Jersey—the improvement of the roads has changed values so greatly that men who a few years ago were struggling farmers with earnings so scant that it was difficult to make two ends meet are now absolutely rich. They can grow more profitable crops, can get them more quickly and cheaply to market, and can dispose of them to better advantage. Their land, which was formerly a drug on the market, now finds eager purchasers at prices that would have seemed

fabulous to the owners a few years ago. What has been done there can surely be done elsewhere.

It is sincerely to be hoped that the dirt road, or mud road as it is also called, will, in the course of a few years, be a memory of the past and that America will vie with Europe in the excellence of her roadways. When we get our roads we must accept *another lesson* from the Old World. European farmers use much *broader tires* than we use here, and the guage of their *front* wheels is less than that of their *hind* wheels, so that the two sets of wheels do not "track." In Bavaria, for instance, a stringent law is enforced against the use of narrow wheel tires, and the width of tires to be used is laid down as follows :

Two-wheel wagon with two horses, four inches; two-wheel wagon with three or four horses, six inches; four-wheel wagon with two horses, two and one-half inches; four-wheel wagon with three or four horses, four inches; five-wheel wagon with five to eight horses, six inches.

Carts having more than four horses and wagons having more than eight horses, are not allowed upon the public roads, except by special permission obtained from the authorities of the province. The wisdom of the foregoing provisions can be seen at a glance.

In many respects we have more need for hard-surfaced roads than has either France or England. Our rainfall is considerably heavier than theirs, and our dirt roads for weeks at a time are half as deep as they are wide. Farm traffic is suspended and horses are kept in idleness. Official statistics show that there are something over 16,000,000 horses and mules on the farms of the United States, and at a moderate estimate of 25 cents per day as the cost of feed for each animal, we see that it costs the farmers of this country about $4 000,000 per day for this item alone. Less than *fifty per cent* of these animals would be sufficient to do *all* the hauling of farm produce carried on in this country, if even the *main roads* were put in first-class condition; but, not to hope too strongly for the attainment of distant things, let us suppose that such an improvement be projected as would render unnecessary only *one eighth* of the total number of the draught animals now employed. This would reduce the entire number by a little over 2,000,000, and would effect a saving each day of 14,000 tons of hay and 750,000 bushels of oats, which, reduced to a money value, equals $300,000 per day, or about $114 000,000 per year. Add to this the value of the animals, $140,000 000, and we have a value of $254,000,000 saved for the first year. Of course these figures do not represent the *real* loss entailed to our farmers by the use of dirt roads. That loss is beyond computation, but in whatever way the computation is directed, and wherever the loss is susceptible of calculation, the same startling exhibit is bound to appear.

It is not within the purview of this paper to enter the field of construction. It will be sufficient to add that greatly improved results may be obtained by any device that will prevent earth and water from mixing on the roadbed, and that may be done in the way of improvement by a proper admixture of suitable earthy materials. The requirements of the material are that it shall not be readily affected by the moisture, temperature or pressure, which are the three principal destructive agencies. Clay is sensitive to water and temperature, or pressure, which are the three principal destructive agencies. Clay is sensitive to water and temperature and has a high ratio of absorption. Sand has little coherence and yields readily to pressure. Gravel has great mobility due to its spheroidal form, but by mixing these in the proportion of two parts of clay, three of sand and eight of gravel, an impervious roofing may be laid, which, if underdrained, will make an excellent earth road. When in the march of science the time comes for segregating the aluminum contained in the clay road into a hard, smooth, resisting medium covering its surface, we will then have a road metal, both in *fact* and in *name*, which will solve the problem of the clay pit and give us a medium of transportation which will surpass even the railway in cheapness and convenience. A. P. STANTON.

THE ORNITHOLOGIST.

Birds, and Their Relation to the Farmer and Fruitgrower.

Read at the Alameda County Farmers' Institute by WM. W. PRICE of Leland Stanford Jr. University.

We find mention made of the birds, in the works of the the earliest writers. The farmers in ancient Egypt, along the fertile valley of the Nile, sent their children into the grainfields to keep off the flocks of injurious birds; on the other hand, some birds are mentioned as being of great benefit. The rook and the stork nested among the rooftops and kept the streets free from decaying garbage. They were the scavengers. And so, from early history down to the present time, we have the story of injury and benefit done to man by the birds.

But in this State the study of birds is entirely neglected, although of the highest importance from an agricultural point of economy. Europe, during the past hundred years, has expended millions of dollars upon investigations and experiments connected with the economic value of plants, insects and birds. The Bureau of Agriculture in the United States is working at the same problems, but we hear little which affects us in California, and especially in this fertile district about San Francisco bay.

Nearly all the States have laws forbidding the destruction of various birds. The State of Ohio, as I learned from Professor Gilbert, had for many years upon its penal code, heavy penalties for the person who in any way should destroy the robin, bluebird, thrush, finch, nightingale and skylark. This law was probably taken in all good intent from the old English statutes, but the ornithologist smiles at the carefully phrased restriction, for the nightingale and skylark are not found within the United States except in cages. This only goes to show that, though the lawmakers were ignorant of the subject in hand, nevertheless they recognized the value of birds and made laws to protect them.

Strange to say, California has no laws prohibiting the destruction of song or insect-eating birds. It has laws, however, to protect the game birds, but that is simply to furnish a few months' shooting to sportsmen.

It has been said that the ornithologist cannot see the practical side of his science; that he has no interest in birds, except in a purely scientific or in a poetic way. However that may be, in so far as I myself am an ornithologist, I am here as the friend of the agriculturist, and, as far as possible, the protector of birds. But if, after a just trial, any species is found to be more injurious than beneficial, I shall urge its extermination. But it is well known to any ordinary observer that birds are often punished for crimes against man, which they have not been proved guilty of. I will mention one instance of this as a sample of what is still going on all over the State, though especially in the southern part.

About ten years ago my parents came from the East and settled in a town in southern California. Near us was a large apricot orchard; in this the birds, especially the linnets, were eating the young buds. The proprietor, thinking the crop in danger, hired a man to keep the birds from the orchard. Not a bird escaped his vigilance. I frequently went among the trees and gathered up numbers of the dead birds. As I remember the collection, there were linnets, which probably did deserve shooting; two kinds of bluebirds, a warbler and some sparrows, which, after eating flies, grubs and seeds all day, perhaps took, as dessert, a few buds at nightfall, to which, in simple justice, they were entitled, by way of compensation. There were also flycatchers, woodpeckers, thrushes, goldfinches and blackbirds, which are hardly known to touch buds, and were in the orchard simply in search of insects. Thousands of birds, comprising a dozen different varieties, were killed in this ignorant way; of this great number not a tenth were destructive, but, on the contrary, were the fruitgrowers' best friends.

In the last few years great numbers of robins have come from the north and wintered in the groves and orchards about the bay. The slaughter of these birds has given a questionable pastime to a multitude of boys and men. On a Saturday or Sunday I have seen dozens of these creatures cross over the Oakland ferry and scatter among the hills, with the intent of shooting small birds. About Menlo Park such pot hunters have swooped down and slaughtered robins by thousands, 300 being considered a good day's work for each; and this merely to supply a few French restaurants in San Francisco. Yet these insectivorous birds are of great value to the agriculturist, a fact recognized in every other State by protective laws.

Never in the history of the State was fruit culture in such danger from insects as it is to-day. The codlin moth, the 12-spotted beetle, the various scales and the peachborers are increasing with wonderful rapidity. Already the profitable production of certain fruits, in parts of the State, is at an end, on account of some of these insects In the upper Sierra fruit region, as an instance, where a few years ago the codlin moth was unknown, the apple industry is, in places, a failure because of this pest.

If birds destroy any great numbers of these insects, it should be known and the birds protected.

At present not enough is known of any of the birds and their food to warrant any supposition that they are either absolutely harmful or absolutely beneficial. Yet we do know that the linnet and grosbeak sometimes eat fruit, and that the wren and the blackbird destroy insects. However, before the destruction of any bird is begun, the farmer and the fruitgrower ought to study the the case with care and give the bird a fair trial. It may be found not only not to be an enemy, but a friend.

Perhaps it might be well roughly to divide the birds, so far as we know them, into two great divisions—the insectivorous birds and those which are known to eat both insects, fruit and seeds. Among the insect-eating birds are included the flycatchers, blackbirds, titmice, swallows, robins, bluebirds, thrushes, wrens, larks and hummingbirds. In the other division we find most of the finches and sparrows, jays, grosbeaks and orioles.

There is no reason whatever for molesting birds of the first list, and every reason why they should be protected. This summer, in the mouth of a woodpecker I found many larvæ of a wood-boring beetle. At the same time I found the hard shells of various insects in the stomach of a wren which I dissected. Blackbirds are always seen in freshly plowed fields in search of insects. I have in mind a peculiar instance of their effectiveness during a grasshopper plague at Riverside.

Some eight years ago the grasshoppers were very abundant on the surrounding plains, and as the green feed became less common, they encroached upon the young orchards along the outskirts of the settlement and rapidly stripped the trees of their leaves. I remember one orchard which had attracted the insects. Near by was a large colony of Brewer's blackbirds, which soon found out the hoppers. All through the nesting season they made regular trips to the affected orchard, each time returning with an insect. They soon rid this orchard of the pest and extended their visits to others.

A notable instance of the benefit, and injury also, done by birds, is seen in a paper by Dr. H. H. Behr of San Francisco on the "Economy of Nature." It reads: "I can here give a curious chain of events which caused the defoliation of our California live oak. There exists around the bay a moth, *Phrygaudia Californica*, which lives exclusively on the live oak. When in 1853 I first found the caterpillar of this species I considered it a great prize, so rare was the little thing. Gradually the insect became less rare, and as soon as a number of shotguns had been placed in the hands of little boys who shot little birds, I had ample opportunities to fill the empty spot in my collection, which for several years had only a single specimen.

"I have counted four generations of this insect in one summer. Nevertheless, they did not endanger the life of the trees inhabited by them. There still existed a number of insect-feeding birds to decimate the four broods of the moth, especially a kind of titmouse which took care of the eggs and of the adult caterpillar. This bird managed in some way to escape the shotgun, but then the English sparrow was introduced by some well-meaning but imperfectly-instructed people. The sparrow soon drove away the titmouse. The titmouse no more decimated the phrygaudia egg and larva, at both of which the sparrow looked with a contemptous smile. The moth multiplied in mathematical progression, the leaves of the live oak—for instance at San Rafael—disappeared four times a summer. Some trees survived, others died. And so you see the driving away of the titmouse destroyed our California live oaks."

Turning to the fruit-seed-eating birds, we find some of them exceedingly injurious. Perhaps we may take the English sparrow* as the worst type. This bird is known by its black throat and breast, noisy habits and fondness for buildings; it was introduced by some well-intentioned people into San Francisco during 1870 or 1871. For ten years they were confined almost exclusively to that city, but since the advent of the railroads they have spread to almost every large town in the state. They are abundant about the bay, especially in Berkeley and Oakland, where they have driven away the greater part of the native birds. They have scarcely a redeeming quality, and of all the crimes laid against these birds, they are partakers of nearly every one. In Oakland their harsh, noisy chatter is indescribable, and myriads of them frequent the cypress hedges, oaks and groves of blue gum trees. As yet no attempt has been made to get rid of them, and from the experience of trials made in the East, it would seem almost impossible. The past summer a few came into the University grounds at Palo Alto and nested about the buildings. Some drove away the swallows, which were nesting around the quadrangle, and took possession of their half-built nests.

The common red-headed linnet or house finch is another bird of doubtful benefit. I am chiefly acquainted with this species in the southern part of the State, where in the winter season it undoubtedly eats a good many fruit buds, especially of the apricot. To some extent it eats the ripening peaches and apricots; in places the fig crop is nearly ruined by its depredations. In the late winter I have examined many linnets, shot in the orchard, and invariably found traces of fruit buds. However, they seem to compensate in some degree for their pilfering, by eating the seeds of numberless weeds, troublesome to the farmer. As the seeds of certain plants ripen, the birds' crops are found to be distended with them; this seems to be the case during the breeding season when the parent birds have young to feed. At this time also they are of value, for they eat many insects. I know little about the feeding habits of the linnet in this section, except that it has usually a bad name among the ranchers, and I think it is a just name in this region. Last summer I noticed that the bird was quite destructive to a small cherry orchard in Senator Stanford's grounds at Palo Alto. Sometimes scattered flocks would dash down among the trees, feed awhile and fly away. Even now the pecked and dried cherries upon the ground attest their destructiveness. So far as I know, this bird is not harmful to the grain fields, and indeed it may be beneficial.

The linnet nests in shrubbery and in orchards and groves, and only in the winter time congregates in flocks to visit the open country. In the future it may be shown that this bird is a bane to the fruit grower and a blessing to the farmer; in the event of this I am unprepared to say just with whom I shall side. Careful investigation alone can solve the problem.

Another bird already mentioned is the black-headed grosbeak. This beautiful songster is persecuted in nearly every town in the State, yet I trust it will be found to be more beneficial than harmful. The male is at once known by its massive bill, black head and orange breast. The under side of the wings and lower part of the body are yellow. The female is much duller colored than the male, but it has the same massive beak.

Like the red-headed linnet, this bird is widely distributed in California. It is found in all parts of the State, from the valleys close to the sea up to 6000 feet in the Sierra Nevada. Wherever there is fruit this bird helps himself; but it eats insects too in great quantities. I have often seen it dart quickly at a moth or butterfly and carry it to its young. About the bay they are specially numerous and build their nests in the thick willow and alder bushes along the creeks. They lay three or four greenish eggs, speckled with brown.

The jay, that light blue, noisy fellow, so common in the foothill region, is another pest. It destroys fruit, nuts, and eats the eggs of many smaller insectivorous birds. It destroys some noxious insects, but it does not compensate, and it might be well to "shoot it on sight." The oriole also feeds to a small extent on fruit, but it mainly lives on insects. In the East some specimens have been examined and found to contain numbers of that mischievous beetle, the plum curculio.

The State of California should take this problem of the birds in hand. A commission should be appointed to make thorough investigations and to publish the results. Until then we are groping about in the dark, perhaps sparing some which ought to be destroyed and slaughtering many which should be protected.

In conclusion, let us hope that the farmer and fruit grower will study the habits of the birds observed around their grounds, to avoid destroying indiscriminately the innocent, the suspected and the guilty. Giving the birds a fair trial is merely economic discretion, to say nothing of common sense and justice. And it is well to remember, too, that Nature forgives no blunders. She will perform no miracles to save your orchards and fields, because you ignorantly destroyed the friendly birds.

* I have since learned that this sparrow has one redeeming habit. Professor Wickson of the State University noticed that the black scale had been removed from certain twigs on some locust trees in San Francisco. Investigation proved it to be the work of the English sparrow.

The Home Circle.

An Arab Song.

I bid my love when near you,
My pain for your sweet sake;
But now that you are absent,
My heart must speak, or break.
God save you from such passion,
It never knows despair,
For whether kind or cruel,
You are the only fair.

You will not see me, Sweetest,
Nor answer, when I call;
But I will follow, follow
Beyond the giant's wall.
Go, shut your door against me,
I will not doubt, or fear;
God still leaves one door open,
The door of hope, my dear!

Could I have loved another,
That time is now no more;
I cover with my kisses
The threshold of your door.
Open the door of pity,
And hear my burning sigh,
For absent from you longer
Is sadder than to die.

—Richard Henry Stoddard.

Her Last Word.

Remember or forget me as you will!
Keep me in mind as one on the June's edge
Keeps the sole bloom that starred the sad March sedge,
Because it was the first, and hours were chill.
Or, else, let me be naught of good or ill;
The snow that one time whirled within the hedge;
Some fair, forgotten thing, too slight for pledge,
Vanished too long to make your pulses thrill.
When you do weep, my tears are salt as yours;
You laugh, and all my loads are light to bear;
Back of my sweetest thought a sweeter yet,
You bide with me, and will, while life endures.
Let me remember—but, if aught of care
Pricks you through me—then do you, love, forget!

—Scribner's Magazine.

A Ridiculous Muddle.

Miss Lucy Meadows had two admirers, each of whom endeavored to court her while the other tried to do the same thing. The experience is not uncommon, but it is always exciting.

It is scarcely necessary to say that Lucy was like most other girls and enjoyed the excitement. At heart she was an honest maiden, but she was addicted to harmless flirtation. She gave each suitor a little encouragement, but not too much, and excused her conduct on the ground that she did not yet know which she liked the better.

In fairness to our heroine it must be confessed that her excuse was not a bad one, for her admirers happened to be as nearly equally desirable as they could be. Each was fairly good-looking, each could make himself quite agreeable, each had average intelligence, each had a good business and attended to it in a creditable manner, and neither had any glaringly bad habits. By anxious mothers and prudent fathers they were both considered good catches for daughters.

To the young men the double courtship was not so pleasant as it was to Lucy. They were often on the tenters and regarded each other with jealous eyes whenever they met. But fate had decreed that their charmer also should have her feelings not slightly disturbed after she had for some time contributed to their torment without any compunctions of conscience.

Her punishment was meted out to her one winter evening. She had been to the theater with Jacob Walters, the suitor who at that time was to a small extent more in favor than his rival. The couple were strolling along, watching for a horsecar on which they could ride to Lucy's home. While they were chatting to their mutual satisfaction, they became involved in a jostling crowd that was pouring out of another theater. The girl became separated from Mr. Walters, and hurrying forward in search of him in the indistinct light, found him, as she supposed, and linked her arm in his with that confiding and affectionate touch which men like to receive from those whom they adore. She walked contentedly in silence for about a minute, when for the first time she raised her eyes to the face of her escort. She gave a little scream and quickly drew her arm from that of her companion. He was not Jacob Walters, but John Hutchinson, her other admirer.

"O, excuse me; I did not mean to. I—"

"No excuse is needed. I am delighted, I assure you," replied Hutchinson, who had concluded from the charming manner in which she had attached herself to him that she intended at last to show a marked preference for him.

"O, what shall I do! How shall I explain my conduct?" she continued, not heeding his words.

"No explanation is necessary. Tell me," and he bent over her eagerly, "were you not about to reward my devotion when you were frightened by your own boldness? O, tell me there is hope!"

He attempted to place her arm in his and to walk as they had done when they met.

"You must not; you do not understand," she cried, as with a desperate effort she extricated herself from his grasp.

"What does all this mean?" was the inquiry in excited tones.

Jacob Walters was again at her side after an anxious search.

The rivals glared at each other.

"It is none of your business," shouted Hutchinson, who proposed to show his sweetheart how doughty a champion he could be.

"You must not quarrel," exclaimed the girl as she ran between the two angry men. Overwhelmed with distress and confused in her mind, she extended her hands toward Walters.

"Forgive me," she cried; "it is all a dreadful mistake."

"Do you suppose I am a fool? You deserted me to go to my rival when you were bound by every rule of politeness to allow me to escort you home. Your conduct is amazing."

"Your language is amazing, also. I desire you to understand that I shall protect this young lady from insult," said Hutchinson with dignity.

Lucy turned toward him and said, "I beg of you to keep still. You do not know what you are talking about."

"Please enlighten me, then."

"Mr. Walters was escorting me home from the theater. We became separated in the crowd just before I met you. I searched for him, and when I took your arm I thought you were he. You were the last person whom I desired to see under the circumstances."

"Thank you; I shall endeavor to avoid meeting you hereafter."

Lucy saw her mistake, but knew not how to rectify it. Her intentions were good, but in her confused attempt to make a satisfactory explanation she had been guilty of a woeful lack of tact. Naturally at this disagreeable moment she turned to her other lover for simpathy.

"You at least must understand the situation and must know that I am not to blame," she cried in appealing tones.

"I am not satisfied," he replied gloomily.

Out of patience she exclaimed: "You are both so stupid! I shall ask no more favors of either of you."

She stepped into the street, and before they could recover from their surprise a passing horsecar was carrying her from them.

"What do you think?" asked Hutchinson.

"I think she is a consummate flirt."

"So do I."

"She has tried to hoodwink both of us. Whatever have been our differences in the past, we have a common cause now. It is incumbent on both of us to assert our dignity, and to show no attention in the future except what the most formal politeness requires."

"I agree with you; and I further propose that each of us shall solemnly promise the other never again to seek her hand in marriage."

"Your proposal suits me exactly."

They shook hands earnestly and vowed again and again to be faithful to their pledge. They were as friendly now as they had been hostile a short time before.

Meanwhile, Miss Meadows also cherished anger. She resolved never to forgive either of her admirers. But at the end of a week her mood was somewhat conciliatory. She reflected that the young men must by that time realize that they had made fools of themselves and that she had done nothing of which she need be ashamed. She expected that they would soon seek her presence in a sheepish manner, and she was prepared to show a gracious demeanor and to let bygones be bygones. But weeks went by and they did not call. She met them several times and they hurried by her and returned her greetings with cold formal bows only. It was now her turn to be very unhappy, especially as it was revealed to her that she did greatly care for one of her former admirers, viz., Mr. Hutchinson. She knew now how to decide between the two, but alas! the opportunity to make such a decision might never return.

Mr. Hutchinson also became uneasy. He was astonished to find how deep his love for Lucy was and how futile were his efforts to overcome it. He bitterly regretted his pledge; but as he himself had been the first to propose the compact, he could blame no one but himself for making it, and was under the strongest kind of an obligation to keep it.

The painful situation was soon further complicated by an act of Miss Meadows'. She began to encourage a middle-aged widower named Slawson, who had long desired to show her marked attentions, but who had been prevented from doing so by her cold demeanor toward him while his two younger rivals were in favor. He was now filled with inexpressible delight because of the winning smiles which the charming maiden for the first time bestowed upon him, and he was so elated because of his unexpected success that he did not stop to inquire why she treated him with a cordiality that she had never before manifested. But unlike the infatuated Mr. Slawson, Lucy was not dominated by sentiment alone. She was as wise as a serpent, while seeming to be as harmless as a dove. She hoped that her gracious treatment of the widower would render Mr. Hutchinson jealous and cause him again to seek her society for the purpose of preventing, if possible, a third admirer from winning her affections.

The manuvre was skillful, but it only brought about a part of what she desired, and even of that part she was ignorant. Mr. Hutchinson was made desperately jealous, but the agreement with Walters, which, of course, was unknown to Lucy, prevented him from endeavoring to become reconciled to her.

Two months elapsed. Seemingly Hutchinson was determined to maintain his indifferent demeanor. Miss Meadows was discouraged. She believed that the young man did not reciprocate her love for him and she began to think that the best thing she could do would be to marry Mr. Slawson. To be sure, he was a widower 20 years older than herself, and had two daughters, each of whom was not much younger than she was, but he was also wealthy and lived in a fine house. Moreover, she rather liked him and he adored her. She might do worse than to accept him as a husband.

At this critical time Hutchinson, unable longer to simulate indifference, resolved to tell Walters how he felt, although he feared that his former rival might still love the girl as much as he himself did. When the two young men next met, Hutchinson, growing red in the face, broached the subject that was uppermost in his mind.

"I want to ask you," he said in a blunt and desperate way, "whether you are willing to release me from keeping the compact by which each of us agreed not again to seek to marry Miss Meadows? I confess that I now love her more than I ever did. I suppose you may love her, too. I would like to be free to court the girl again, and, of course, if I had that privilege, you, too, would again have a right to show her attentions, provided you desired so to do. Let the better man win, I say, and if either of us is to win we must be lively, I tell you, for the widower is making alarming progress in the improvement of his opportunities, unless I am much deceived."

Walters laughed as the other spoke and looked at him in a peculiar way.

"I release you from your promise. Go ahead, and may you have good luck."

Hutchinson was much surprised.

"Can it be that you are no longer interested in Miss Meadows?" he asked doubtfully.

"I am no longer interested."

"May I ask the reason?"

"Yes; confidentially, I will tell you that I am now in love with another girl."

"I am so glad. I hope she will reciprocate your affection and that you will be very happy," said Hutchinson, as he fervently shook the hand of his companion.

"She has already accepted me."

"Good."

At 2 o'clock in the afternoon of that day Mr. Hutchinson stood beside Miss Meadows in the parlor of her home.

"Am I too late?" he asked.

"No; but you would have been one hour from now."

"What do you mean?"

"At 3 o'clock Mr. Slawson will receive his answer."

"What will you say?"

"Had you not called, my answer would be yes."

"What will it be now that I have called"

"No."—J. A. Bolles in American Cultivator.

BRIGGS—I hear you proposed to Miss Moneypenny the other night.

Griggs—Yes.

"How did you come out with your suit?"

"I saved most of it."

BUTCHER—Round steak, mum?

The Newly-married Housewife (who hates to appear ignorant)—N-n-no; a square one will do, I guess.

Johnson's Fortune.

"I've done my best mother," Farmer Hobbs said, coming in hot and tired from the hay-field. "That there dratted machine won't work, and ef I am to save my hay, I'll have to take that intrust money and buy a new machine." "I think you'd better not, father," Mrs. Hobbs answered, in mild alarm. "I don't know where you're goin' to get any more, and Johnson is powerful clost about gettin' the money on time. I'd be afeard to let it run over a minute."

"Well, but, Lucindy, the hay's wuth more'n the intrust, and you know they's no takin' the stock through the winter without it. The cattle might kinder rub along, but the horses is jist plum ableeged to have their timothy, and my timothy is as fine a piece as you ever sot eyes on."

"Suppose you try again," Mrs Hobbs suggested, helping her husband to a luscious quarter of raspberry pie. "I'll go out with you and help onchoke her, and we'll use plenty of ile, and mebbe you can rub through jest this oncet."

"Well, I'll try, Lucindy, I hain't no hopes, but I would like to save that intrust money."

Mrs. Hobbs stayed in the field till five o'clock, and the hay was cut with few delays. The girls brought out the supper, which was eaten with much relish in the hayfield. The horses being watered and fed, the work went on by the big harvest moon, and at ten o'clock the hay from the "big medder" was in the stacks.

A few days after, Jim Johnson came out to see if the interest money was ready. He tied his horse under a tree and started through the meadow to see Mr. Hobbs, who was fencing his ricks at the other side.

"Moses and the bullrushes! What's that?" he asked, gazing at glinty, blue reflections floating on pools of water standing everywhere, for it had rained heavily the night beore. "Oil, and no mistake!" he went on, after dipping his finger into a puddle and testing it carefully with his nose.

It was only the day before that the papers had contained an account of some new oil-fields found not above twenty miles away; an old partner of Jim had been the first to invest, and was consequently fabulously rich.

Johnson carefully rubbed his fingers on his pocket handkerchief, stowed the latter in a deep pocket and hastened across the field, his face pale and his eyes glittering very unpleasantly. He tried to greet the farmer with his accustomed familiarity, but his words came by jerks and in gusts, and his throat became so dry that he could scarcely articulate.

"What's the matter? Hain't you well?" Mr. Hobbs asked, suspending his work to gaze curiously at his visitor. "You look taller-colored as the dead, an' your eyes is like burnt holes in a blanket."

"No, thank you, not at all," Johnson replied at random. "I'm quite well, except husky, sore throat—are you well? And the family?"

"Pretty fair—we've got a good deal of health mixed up amongst us—you know they's twelve all told."

"Yes, a large, interesting family—want to sell the farm?"

He tried to make the question less eager, but he could not quiet the tremor in his voice and he was in mortal dread lest Mr. Hobbs should have some reason to cross the field and see the oil, when his "cake would be dough," as he mentally expressed it.

"No," Mr. Hobbs replied shortly, and went on with his work.

"I'll give you a good price for it—I want it for a combination shoe factory. Set a figger."

"Well, twelve thousand—a thousand a piece," said Mr. Hobbs jokingly; the farm was not worth more than a third of that sum.

"I'll take it," with a gasp. "Here's fifty to bind the bargain, and I'll fill out a check for the balance right here."

He did so, and handed the paper to Mr. Hobbs, who kept his countenance and received it with perfect gravity. Privately he was convinced that Johnson was crazy.

"Come to the house and sign the contract for the deed."

"All right."

Mr. and Mrs. Hobbs accompanied Johnson to town, and were thunderstruck when they learned that the sale was real, and that they had twelve thousand dollars in the bank.

"Sense that Johnson hain't crazy," Hobbs began as soon as he was clear of the town, "wi y, they's somethin' in the wind. It may be a shoe factory, but I don't believe it. I wonder ef they've found gold?"

"It don't make no sort o' defference to us, father," Mrs. Hobbs answered. She was afraid that her husband would take alarm

and want to "rue back," as she expressed it. "No, it don't make a grain o' defference to us, an' we've got enough for the place ef they find dimints. I never did like it, an' I don't keer how soon we git away. Let's buy back our six acres on the edge of Cloverdale. We can git it for three thousand, an' then you'll have nine thousand to put out at intrust."

"Yes, mother."

"And we kin git little Jim his cornet and send him off to be learnt to play."

"You kin do jist as you please mother. I'm rich enough now, I reckin, to do as I like, and I hope I won't never want to do nothin' very bad."

"That's somethin' you never did do, father," dutifully replied his wife, "and I don't believe bein' rich is a-goin' to change you much. If it would I'd want somethin' to come along and take the money away from us, because it can't never pay to give up doin' good."

As soon as the transfer was made and the deed recorded, Johnson sent the following telegram to his whilom partner:

"Come on—bring all your loose cash—oil in abundance."

The cash was sent with instructions to buy adjoining farms on option of thirty days; the oil man would come later and bring an expert.

The farms were bargained for at ridiculously low figures, and then Johnson invited his friends out to see his "find."

"I tell you, boys," he said, as he rode up and tied his horse to the meadow fence, "the whole earth is jist a-soakin' with it, and it's jist burstin' out of the ground. You see this country has never had any oil taken out of it," he went on glibly, "and as it is constantly generating it has become so chock full that the ground can't hold it and it's compelled to come out. You'd be astonished to see how it is actually boiling up."

"It must be wasting if it is in that condition," some one remarked.

"What's a waste of a few millions o' barrels?" scornfully retorted Johnson. "There's enough left for me and my family and all my poor relations."

By this time others, having heard the news, had arrived at the farm, and quite a crowd had gathered when the partner with the expert drove up, followed by Mr. Hobbs.

"Just wait until you examine these blue patches," Johnson said to the two men after they had alighted from their buggy. "Now tell me if you ever saw a surer indication of oil?"

The expert gave a glance over the field, took a quick survey of the conformation of the country, and opened his lips to speak; but before he could articulate a word, Mr. Hobbs broke into the conversation with a remark that sent the cold chills down Johnson's spine.

"And is it them blue patches that indicate ile?" he asked with a glance half pitying, half contemptuous. "That's a fact, for I used mor'n two gallon on my ole mowin'-machine, a-tryin' to git through the season without buyin' a new one."

"Let this be a lesson to you, sir," said Johnson's partner.

"All the lesson I git out of it," again put in Mr. Hobbs, "is that when you are a-cuttin hay use plenty of ile."

"It's a swindle!" Johnson broke out, livid with rage. "And I'll land you in the pen before this is over."

"Don't talk to me about swindling," Mr. Hobbs began, advancing upon Johnson, who had retreated to his buggy. "Who was it swindled the Widow Robinson out of her property and drove her to commit suicide? Who was it that swindled the people out of their taxes and barely missed the pen? Who was it that swindled—"

Johnson gave his horse a lash with the whip and drove rapidly away.

"I didn't know nothin' about this ile business until this mornin'," Mr. Hobbs explained to the people present. "I knowed they was somethin' up, but I had no idy what it was, for I supposed every blamed fool in the country would know machine-ile on a medder after a rain."—Waverly.

Sitting up Straight.

Grown people and children alike are inclined to fall into the very bad habit of sliding down into a chair, and sitting for hours with the spine bent almost in a half circle.

That this is injurious thousands of people who indulge in it never so much as dream, but that it is the cause of many serious ills those who have investigated the subject are well aware. The continual strain upon one side of the spinal column, with the corresponding compressions on the other, gives rise to nervous difficulties and affections of the brain. Dizziness, nausea and blind spells are not infrequently the result of this practice. While the strictly upright position is undoubtedly the most healthful it seems rather hard to persuade the young and indolent to maintain it.

Lazy people and those who love luxury have a habit of "slumping," so to speak, into their chairs and remaining in a semi-recumbent position with the spine as nearly telescoped as may be. That portion of the human anatomy generally known as the backbone was intended to be worn in an upright position, and the constant pressure of the sections of the vertebræ upon each other is productive of various ills.

Children should be taught to sit erect, especially if they are growing rapidly. When tired or in a position for rest, let them lie down and entirely remove the strain from the muscles ot the back. If the youngsters who suffer from dizziness or headache are carefully observed, it will be frequently noticed that their position is faulty. The curved form of the spine results in the pulling of the muscles at the back of the neck, and the difficulty is quite certain to be removed by correcting the habit of sitting.—New York Ledger.

YOUNG FOLKS' COLUMN.

Reason in Animals.

Written for the RURAL PRESS by CAROLINE E. SANDERS.

There is a well-known society now existing for the prevention of cruelty to animals. People at last understand that the poor, dumb beast is not only capable of feeling bodily suffering keenly, but also possesses the faculty of enjoying good treatment.

No well-disposed boy or girl will ill-treat a horse or dog; not solely because you know they are attached to you, but too, because they have so much intelligence, you feel they would resent your unkindness. But did it ever occur to you that in the lower order of animal-nature is found also a capacity for pain or pleasure, and that some of them have been known to show strong traits of affection, generosity and gratitude, as well as the opposite qualities of hate, revenge and jealousy?

A fish you might consider scarcely capable of an emotion, yet there is a well-authenticated story of a whale which had been attacked, but after striking him with their harpoon, before the whalers could secure him, his mate was seen coming with great speed to assist or defend the one in distress, and it was only by the most violent exertions the men saved themselves from destruction, as the object appeared to be revenge by endeavoring to break the boat to pieces. After they had escaped, the whale lingered around the place until his partner's struggles ceased and he floated without life upon the water.

Tyranny is plainly to be observed among animals which go in flocks or herds, as the leadership always falls upon one who has fought his way to the front. This is familiarly seen in every poultry yard where one rooster which is a good fighter inevitably "rules the roost."

Sparrows are known to be greedy, selfish birds, but an instance of the generosity of one to a canary is told in the Naturalist's Magazine, an English publication: The canary was in a cage which hung outside of a window. One morning a sparrow perched upon the cage and appeared to be holding a conversation with its inmate. Presently it flew away, soon returning with a grub which it dropped into the cage. After that it came every day with the same kind of an offering, and afterwhile the canary became familiar enough to take it from the sparrow's beak.

We all know that animals are capable of strong and enduring friendships, sometimes very singular ones with those of a different species.

There was once a stray kitten which had been adopted and brought up by an old cat, with her own family. It became a great frequenter of the stable, and there made two intimate friends—a pony and a lame bantam chicken; and a curious sight often to be seen was the kitten and the bantam asleep on the pony's back, where they would spend hours undisturbed.

There is another singular story of a lamb that was the pet of a man who had charge of some cows. It was raised with them, but after it was grown he put it with the other sheep. It would not associate with them at all, perhaps had forgotten sheep language or had become more aristocratic; however, it seemed so miserable that the man took it back to its old quarters. The cows rushed up to meet it, and each one in turn licked it all over.

An instance of this kind can be vouched for as authentic, as it came under my own observation. Dick was an intelligent Newfoundland dog. He was so honest and trusty that his master could send him home with a basket of marketing, even when it smelled temptingly of fresh meat. But alas! like some good people, Dick had a weakness, which in his case was a hatred of cats. Not only did his mistress have to part with hers because he tormented it so, but he would chase every strange cat off the place and had been known to hide behind a tree or around the corner of the house and lie in wait to pounce upon one to give it a good shaking and a race for its life.

One day a poor, forlorn, half-starved-looking little kitten was noticed out in the garden. It appeared too weak and sick to make its escape from Dick, so his mistress hurried out to drive it away before he should see it, but before she could reach the spot he was there, standing at a short distance wagging his tail and looking with evident compassion upon the poor creature, which crept up to him and rubbed against his legs as if asking protection, while he looked down upon her in a very patronizing manner; then, catching his mistress' eye, he darted off to her, then back again to the kitten, as much as to say, "Do take care of the poor thing."

It was taken in, warmed and fed, with one eye upon Dick in the meantime, but from that day, though he did not cease to make war upon other cats, they were devoted friends. When he would lie down by the fire Miss Pussy would jump up on him, scratch his long silky coat until she made a place to suit her, then lie and purr a musical little song as long as she saw fit, or, if it suited her better, to cuddle down between his paws, he would keep his head elevated in a very uncomfortable manner for fear of disturbing her. He had learned the trick of opening the door into the hall, and kitty had only to scratch to effect an entrance. But poor pussy was doomed to meet with another misfortune in her short life.

Early one morning her master was disturbed by a violent scratching at the hall door. It was renewed again and again, until he was compelled to get up and open it. When he did so, he saw Dick stretched out at full length near the front door, apparently sound asleep.

"Dick," called the gentleman, "you lazy fellow, why could you not have opened the door for puss?"

Dick did not stir, and the cat, instead of coming in, walked back to him and mewed piteously. Suspecting then that there was something wrong, he walked up to him and found him dead—no doubt had been poisoned.

After thinking of all these things, you cannot but believe that these animals all possessed a kind of reasoning-power higher than mere instinct, which should make us careful to show kindness and justice to all created things, for

"The God who loveth us
He made and loveth all."

The Thoughtful Child and the Spirits.

Written for the RURAL PRESS by DUANE MORLEY.

The child stood by its mother's knee, her work laid aside for the time, that she might the better answer the thoughtful one his many questions.

And as she spoke, now telling him of the night, its sable wings enfolding the earth; now of the day, its rosy mantle glowing like gold; now of the moon, whose soft radiance lay like sheets of silver upon grassplot and grove; and again of the stars, which seemed like so many eyes blinking from the face of the darkness; ever the thoughtful child would answer: "Yes, mama! yes, mama!" Never was there anything that he liked better than to have his mother lay aside her work and talk to him about the thousand things about which he wished so much to know. Her voice was his sweetest music, and her eyes, mirroring back his large wondering ones, the heaven of his delight.

There came a time when the child, increasing in age and thoughtfulness, could not bide by its busy mother's knee, but went abroad, not far, but yet abroad to the little cup-like dell where the slender pines lifted their shapely spires to the sky. How soft and soothing the dark green foliage was, and how golden lay the sunshine upon the glade just out from the shadows of the pines. All this affected the thoughtful one, and his wonder increased.

One of the pines stood apart from all the others, and as the child lay in the shadow, the wind rippling his curly locks, his gaze fixed upon the beautiful tree, it became as a person to him, and he grew to wonder as the days passed by at the feeling within him which responded as he looked upon it. Then the question arose in his mind: "Why doesn't it speak to me as mother used to?" One day he could not leave the tree, not even for a few minutes, its form ever glassed in his vision, while a voice seemed to speak to him, either from the lithe branches or from the slender bole: "I am the Spirit of Gracefulness, come to satisfy a longing of thy nature; with thee I am willing to journey." So, whithersoever he went, the Spirit of Gracefulness went with him.

His steps took him to where a silvery brook, coursing its way from the mountains, fell in gentle cascades, the mists arising, gilded by the sunbeams. "Ah!" he exclaimed with delight, falling into the lush green grasses which grew by its brink, as into his own soft bed at home, "what have we here?" The more he looked at it the more his wonder increased, and the more he longed to know about it. So fixed became his gaze and so great his wonder that, when the great noon sun shot its shafts through the mists, a figure arose from the spray to speak to him. And, as if at his mother's knee, again he listened.

"Thoughtful one, I am the Spirit of Beauty, ever answering to a desire that is within thee. If it is thy pleasure, I will journey with thee."

Then, too, it seemed as though his mother's voice was calling him and he turned to go, but was drawn yet to linger by the soft-falling waters. Mother's voice? No, but oh, how sweet and delightful! Then these words came to him from the cataract:

"I am the Spirit of Music answering the desire of thy spirit, to gladden thy life with song. Let me, too, journey with thee."

So, with the spirits of Grace, Beauty and Music, Thoughtful continued his way. Faint from long fasting, he came upon a fire of coals between two rocks, and upon a shelf of rock the flesh of a young kid. Ah!" he sighed, "if only my mother were here, she would cook and I would eat." That did not satisfy his hunger but rather increased it, until a voice seemed to say:

"Lay the flesh upon the fire, cook and eat."

He did so, and the voice continued:

"I am the Spirit of Usefulness; take me with thee upon thy journeyings, and I will serve thee with health and long life."

Then the child continued on his way, and finding a bird imprisoned in a bough, he hastened to release it; and a little farther on, finding a kid fallen upon the jagged rocks and bleating from its pain, he comforted and caressed it, the while a strange sensation burned within him.

"Ah!" said he inquiringly of his own breast, "what is this?" No sooner was the wish manifest in the thought than a voice, speaking from within, said:

"I am the Spirit of Love! my home is within thee; never cast me out and thy life shall be blessed."

Then the thoughtful child, wholly engrossed by it, wept tears of joy, and a voice, seemingly from heaven, said:

"The Spirit of Usefulness, of Goodness, of Beauty, of Music and of Grace, are of God, and I am God."

Then the thoughtful child looked all abroad to see the face of the whole earth and the whole heaven bathed in glory.

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A cream of tartar baking powder Highest of all in leavening strength.—*Latest U. S. Government Food Report.*

AGRICULTURAL NOTES.

CALIFORNIA.

El Dorado.

GRAIN-GROWING IN THE MOUNTAINS.—T. G. in El Dorado *Republican*: Now that the first rains of the season are coming on and the farmers of this State are everywhere getting ready to sow their grain, I would like to make a few suggestions in regard to grain-raising which may be of service to some persons here in this mountain district. We have a peculiar climate in this county which is in some respects harder on grain than it would be were it either warmer or colder. In the valley counties of this State grain grows nearly all winter, while here it is kept back by frost. In colder climates it grows later into the summer, while here it is checked by drouth, so that the period of growth is shorter here for grain than in most climates. Frost is harder on grain here than in places where the winters are more severe. This, at first thought, would seem unreasonable, but it is easily explained. When plowed ground freezes, the top rises slightly and in thawing settles back. The frost may not lift it but a little, but it always does lift it some. Now, if the weather is slightly cold, the ground will freeze a little at night and thaw the next day, or, in other words, it will rise and fall every day, while if the weather were severe it would freeze up and stay frozen for a considerable time and would only rise and fall once or twice during the entire winter. This continual lifting of the ground breaks off the roots and sometimes even pulls up the grain. It weakens the vitality of the plant, prevents it from stooling and keeps it back to late into spring. This difficulty may not be entirely obviated, but it can be, in a great measure, prevented by sowing acclimated seed instead of importing so much of the seed from the valleys, as some of our farmers here do. Why it is that acclimated seed will stand the frost in the winter better than valley seed. I do not know; but I have raised grain here for a good many years and I am fully persuaded that seed which has been raised in the mountains for ten years or more will produce better returns every time under the same circumstances. The only reason that I can give is that the grain gets used to the frost. It may not show any more top during the freezing weather, but it is growing root and will come out better as soon as it warms up. Mountain seed will not produce any taller grain than imported, but it will stool at least one-third more—that is, it takes one-third more valley seed to get the same stand. A piece of ground which requires three sacks of thoroughly acclimated seed (raised here for not less than ten years) will take at least four sacks of valley seed to produce the same stand and the crops would be nearly equal if cut for hay, but if the crop is threshed the mountain seed would produce better filled heads and a plumper berry, which would materially increase the yield.

Kern.

PACKING LA CORONA RAISINS.—Bakersfield *Californian:* E. H. Loveland has decided to pack the raisins from La Corona vineyard in town. Mr. Loveland will pack about 12 carloads from La Corona vineyard, and has already shipped two carloads East, so that the production from this young vineyard, now in its third year, shows itself to be very handsome. The raisins are of the very finest quality, and are certain of bringing a very satisfactory price in the market. Mr. Loveland has had the same experience this season as most of the raisingrowers in that the vines gave a much larger yield than his expectations. He has been obliged to order four carloads more of trays than he first calculated upon. The work of packing will commence this Tuesday afternoon, Oct. 18th, and it will be a very interesting place to visit for those to whom raisin-making is a new industry.

Mendocino.

A MODEL RANCH.—Ukiah *Dispatch and Democrat:* Mr. Foster has made his ranch the model ranch of the county. Thousands of dollars' worth of improvements have been put on the ranch since it came into Mr. Foster's hands two years ago. It contains the best dairy in the county, and the barns and stables are the finest by all odds that can be found in this section of the country. The lessee, Mr. McDonald, has 200 horses on the place. Most of them are of the finest strains of trotting stock, including representatives of Electioneer, Sidney, Guy Wilkes, Director and other celebrated trotting sires. He has also some fine Percheron stock. A band of his colts of this breed took second prize at the State Fair at Sacramento. They are perfect gray beauties. On the ranch is a splendid three-quarter-mile track. In addition to the large stock and dairying interests on the ranch, the fruit business is also receiving attention. Many acres of the finest young orchards in the State are to be found there.

Nevada.

RAISIN-MAKING. — Grass Valley *Telegraph:* Cosler & Fisher, who have a farm, orchard and vineyard in the southern part of Grass Valley township, are the most extensive raisin producers in the county, so far as we know. They put up a first-class article in a neat and proper manner. At present, they are drying their grapes so as to make them into raisins, and the weather is not at all favorable just now for that business; but they will have a good lot for market in spite of the weather. The yellow-jackets give a great deal of trouble this fall. The insects are very numerous and very destructive. They will get on a bunch of grapes and stay there until killed or until the fruit is entirely eaten. The great number of the jackets and their very great hunger make a sign of a severe winter, say those who study signs of the weather.

Sacramento.

HOP NOTES.—Sacramento *News:* George H. Menke reports having seen numerous red spiders on the short vines near the ground. He believes a sharp frost would do away with them. Mr. Menke will cut his vines close to the ground and burn them. George C. Brewer has raked his vines to the hills and during the short north winds fired them. This, possibly, may not hurt the roots, but we should not like to risk it. The chances are that the crown of the roots will be injured. George Menke will put out 14 acres more of roots this coming season, thus increasing his yard to 58 acres. Daniel Flint proposes to try an experiment the coming season. He has just thoroughly flooded with city sewage a four-acre yard, and he will now sow it to barley. When the grain has made a thrifty growth it is his purpose to plow it under and use the herbage as a fertilizer. Mr. Flint's experiment will be a new one here, though often practiced in the East with clover and other like herbage. The trouble which Mr. Flint will encounter is that his crop of barley will be turned under so late that it will not thoroughly decompose before the dry weather sets in. If this should be the case the barley, instead of a fertilizer, will assist in drying out the land and obstruct cultivation. As plowing cannot reach the hills there will be an extra expense incurred in cleaning the barley from the hills. However, the thing is worth trying. F. V. Flint, of Flint & Co., hopdealers, lately returned from a trip in Sonoma county. He reports a very fine grade of hops this year and the industry in a very flourishing condition. "One of the most delightful spots in Sonoma county," he said, "is Mt. Olivette, situated about eight miles northwest of Santa Rosa, on the Donahue system. Here are the homes of T. B. Miller and S. W. Purrington, proprietors of the Miller & Purrington hopyards. They are now the largest hopgrowers in the county, farming 60 acres on the bottom lands of Mark West creek. Their dwelling and kilns are built on a high elevation overlooking the hopyard. Three wooden kilns are used to cure the hops and accommodate 300 pickers. White labor is very plentiful. They were compelled to turn hundreds away. They came in all sorts of conveyances, and camped out in the fields or along the creek until the job was done. This yard is one of the few in this section having trellis, and it has met with such favor that a great many acres will be set up the coming season." These growers have a crop of 550 bales of fine golden hops as a reward for their efforts, 120 bales of which they are shipping to London to Knoakes, Son & Collard.

San Bernardino.

THE BIG CANAL.—Redlands *The Facts:* The canal for which the Bear Valley Co. is laying plans will have a capacity of 15,000 inches, and leads from Santa Ana canyon to the Alessandro tract. Some half-dozen surveys have been made, and the company now has the various surveys under consideration. We are assured that active work will be under way by November 1st in the construction of the canal. One of the most extensive works of the kind ever undertaken in southern California will be getting the water out of the Santa Ana river through tunnels aggregating a mile and a half in length. The company is not yet making public their plans for watering Yucaipe valley, if, as some suppose, that will be one object of the canal.

San Diego.

APPLES AT A HIGH ALTITUDE.—Cahuilla Cor. San Jacinto *Register*: Mr. James Hamilton's apples are now ripe, and, Mr. Editor, our altitude is 4000 feet and the fruits and products of the soil seem to have a flavor that is superior to that raised in lower altitudes. Although farming and fruit-raising in Cahuilla valley is limited on account of bad roads to market, we intend to improve in this line when we get our road completed.

CAHUILLA HONEY CROP.—*Register*: In regard to the culture of bees in the Cahuilla valley, all who have them give an encouraging report, although they have not taken out much honey this season, but say their hives are full, and as far as I can see, the honey is always a little dark but the crop is sure.

Sutter.

HANDLING PRUNES. — *Farmer:* The last prunes have been off the drying-ground a week or more, and packing and shipping is now actively going on. The season is very favorable in this locality for curing this fruit, and a choice article has been packed. The principal prune-grower of the county is R. C. Kells, who, by making a special study of the business, has now almost every convenience required in a first-class prune orchard for picking, drying, handling and packing the fruit. The last season he erected a separate building from his packing-house, in which is built a large steam boiler that heats huge vats, in which the prunes are dipped before placing on the large drying-ground. This portion of the system is well supplied by tin dipping-baskets, cranes, etc., which greatly facilitate the work. Before another season he intends putting in an eight-horse power engine, which, by connecting shafting with the packing-house, will operate the graders, elevators, etc. In the packing-house quite a force is busily engaged in putting the prunes into boxes holding 20 pounds each. The fruit had been carefully graded into six separate sizes by the new Hamilton grader in use at the house, and were carefully laid in the boxes and then pressed, the inside of these boxes being papered. Great care is used in packing and boxing, as the fruit looks much better when properly handled. Mr. Kells picked from 20 acres this season 136,500 pounds of green prunes, equal to about 40 tons dried; besides this, he has purchased and handled over seven tons from outside parties. A recent shipment of one carload lot was sent to Philadelphia, and this week one carload will go to Colorado and another to Cincinnati. It pays to grow good fruit, and in drying and packing the most improved conveniences do much to lessen the expense and raise the grade.

FRUIT SHIPMENTS.—Yuba City *Independent:* On Oct. 17th R. C. Kells shipped a carload of prunes to Chicago, and on Wednesday he forwarded another car to San Jose. On the same day the cannery sent two cars East; Williams & Green a carload of raisins to San Francisco, en route to Australia, and a carload of almonds left for Chicago from the orchards of Kells, Walton, Cutts and Sterns. Yesterday 17 cars loaded with canned fruit left for eastern points. Further shipments will follow during the week. The shipments of prunes to San Jose is very interesting in that the Santa Clara valley is considered the greatest prune county in the State.

Sonoma.

A MODEL FRUIT ORCHARD AT STONY POINT. Petaluma *Courier*: An experienced and scientific orchardist was out inspecting the fruit region in the vicinity of Stony Point last Monday, and his observations quite thoroughly convinced him that fruit-growing in that section pays, and pays well, provided the fruit-growers pay anything like reasonable attention to the care of their trees. By way of example, he states that S. B. Woodworth's apple crop, for which he is now getting from $1.25 to $1.75 a box, with reasonable certainty of a handsome advance before the winter is over, will yield not less than 4000 boxes of as fine fruit, on the average, as ever was marketed anywhere. Mr. Woodworth has 800 Spitzenberg trees that will yield fully 2000 boxes of selected apples. But Charles Woodworth has the model orchard and crop. Not counting those that go to the drier, his whole crop will amount to a little over 6000 boxes. From 300 trees—best Spitzenbergs—the yield is 3180 boxes. These trees are 32 years old, and this is the best crop they have ever borne. From 150 of his best Bellflower trees, Mr. Woodworth will market 1600 boxes of apples.

GRAPES AT OCCIDENTAL.—Santa Rosa *Democrat:* F. B. Glynn informs us that the traffic in grapes was never before so good at Occidental as at present. The vineyards yielded more than an average in quantity and the quality is excellent. Prices have ranged from $11 50 to $12 per ton, and will probably go higher under the existing favorable condition of the market. Nelson Drago, Charlie Nolan and Garnier & Lancel are the principal buyers. The latter will manufacture about 400 tons into wine at their cellar in Occidental.

Tulare.

IRRIGATING FOR GRAIN.—Visalia *Delta:* From the Waukena colony, in this county, come good reports of the success achieved in raising grain by means of irrigation. One farmer, a part only of whose land was flooded, harvested 1190 sacks of barley from 53 acres, and averaged 12 sacks an acre with wheat. Another farmer irrigated and summerfallowed 50 acres, planted it to wheat and threshed 1008 sacks. The company which owns the colony land planted 1500 acres last winter. Of this only 1000 acres was supplied with water, but notwithstanding this there were harvested 24,000 sacks of grain. What these results mean may be better understood from the fact that adjacent lands not irrigated yielded only two to four sacks to the acre, and much of it scarcely paid the cost of harvesting.

Ventura.

SIMI FRUIT NOTES.—Cor. Ventura *Free Press*: Last year 18-months-old Muscat grapes from cuttings, on C. F. Warren's place, yielded 1200 pounds of grapes. This year this tract, seven acres, has yielded six tons of grapes. The grapes have matured nicely and are now being turned into an excellent quality of raisins. He has a fine yield of silver-skin onions, being sound and plump. He will this year plant 700 prune trees on plum stock, 800 apricots on peach stock, 300 Winter Nelis pears and 600 budded apricots. Mr. Warren has a fair yield of white corn, good yield of beets, melons and pumpkins, having had a good crop of hay. Here is an important point—all the above were cultivated without irrigation.

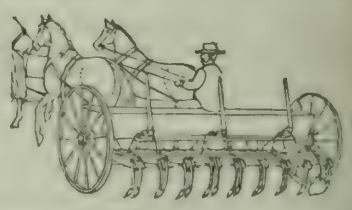
OREGON.

THE CREAMERY AHEAD.—Coquille City *Herald:* At the regular meeting of the directors of the Coquille Creamery Co., it was found that, after all the loss occasioned by paying too high a price for milk early in the season and the too great expense incurred for running and the transportation of milk, the company is now ahead, financially, on the present season's run, with bright prospects in view, and the secretary has been authorized to draw orders on Oct. 15th for all bills due. The price of milk has been raised to $1 per 100 pounds at all river landings, the company to do the delivering as formerly, extra, making the milk cost the company, at the creamery, $1.15 per 100 pounds, which must prove very satisfactory to those having milk to dispose of. We hear the early rumors of similar plants down the coast, below Bandon, at Myrtle Point and at Gravel Ford. We say, let them come. Our climate and section are specially adapted for this industry, excelling any we know of. We are informed by the secretary that the price of butter has steadily increased from 19 cents at the first shipments, until it has now reached 37½ in San Francisco.

HOPS AND PRICES IN JOSEPHINE CO.—Grants Pass *Courier:* J. P. Ranzau has been delivering 10,000 pounds of hops at the warehouse in this city. He had sold this much of his product on contract at 14 cents. He has several thousand pounds yet, which he can dispose of at the top of the market at his pleasure. Buyers are offering 20 cents in Grants Pass at present. Hop-raisers think that hops can be raised, picked, dried and baled in this county at eight cents a pound, and so present prices are fairly remunerative.

GORHAM

SEEDERS and CULTIVATORS.



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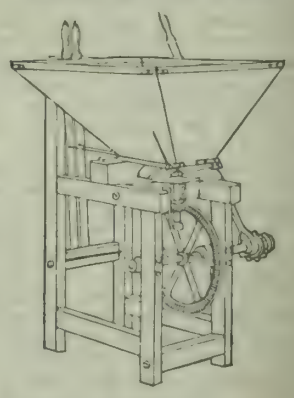

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The Best Peach Known for Early Shipment East.

Reasonable prices to dealers and canvassers. For particulars apply to

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A. T. FOSTER, Dixon,
Or, I. H. THOMAS & SON, Visalia.

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Bartlett Pear Trees and French Prunes

On Myrobolan Stocks, at Low Rates.

Also, a general assortment of Apple, Pear, Peach, Nectarine, Plum, Cherry, Quince, etc., grown in sandy loam, without irrigation, which gives a fine proportion of roots. I offer no trees but what are grown in my own grounds and known to be true to label and free from scale bugs. Address: W. H. PEPPER, Petaluma, Cal.

Owing to age and poor health, I will sell my place and business at a bargain. Place consists of 250 acres of land, good buildings, 50 acres in orchard, and a large Nursery Stock, together with horses, wagons and implements, complete, for carrying on the business. A good opportunity for enterprising men with capital to step into a good-paying business. For further particulars address, as above.

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Apple Grafts at $3.50 per thousand.
Prune Grafts (on Mariana Stocks) at $9 per m.
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All first class and best of material used, f. o. b.

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I will guarantee every tree true to lable and free from insect pests.

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RIPENS IMMEDIATELY AFTER THE ALEXANDER (White Cling), which is the earliest peach in market.

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THIS PEACH HAS BEEN SUCCESSFULLY SHIPPED EAST FOR FIVE YEARS and is no new, untried variety.

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"Orange Culture in California" was written by Thos A. Garey of Los Angeles, after many years of practical experience and observation in the growth of the fruit. It is a well-printed hand-book of 227 pages, and treats of nursery practice, planting of orange orchards, cultivation and irrigation, pruning, estimates of cost of plantations, best varieties, etc.

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W. A. T. STRATTON, Petaluma, Cal.

Seeds, Plants, Etc., Continued on Page 371.

PATRONS OF HUSBANDRY.

The Work of the Grange.

The origin and progress of the Grange forms one of the most interesting and important chapters in the whole history of agricultural industry. Previous to its inception, the opportunities for educational and social advantages among farmers was very limited, and although that class of our people exceeded in numbers all other industrial classes combined, its influence was scarcely felt in the community or in our halls of legislation, either State or national. But during the 27 years of its existence it has wrought, either directly or indirectly, a greater change in the condition of those in whose interest it has labored than has ever been effected through the efforts of any other organization in the land during a century. To-day the farmer and his family stand on an equal footing, socially and politically, with the people of any other industrial class.

THE GRANGE AS AN EDUCATOR.

As an organization, the Grange has many purposes, as many, indeed, as are the needs of those in whose interest it has been established, and one of its chief purposes is to elevate the educational and social standing of the farming community, and to place before its members opportunities by which that end may be most readily reached. What it has done in that direction is patent to all who keep abreast of the times. This work has been mainly accomplished through the frequent meeting together of the men and women who compose the Grange for the purpose of becoming better acquainted with each other, of comparing notes and experiences, and through the reading, thinking and action which such association naturally induces. It is in such meetings that members have the opportunity of giving and receiving instruction and of frequently receiving inspiration from those whose abilities and training have more especially fitted them for giving instruction. No other organization has more earnest or more level-headed men as leaders, and its membership is composed of the most intelligent and progressive portion of the farming communities.

IN POLITICS

The Grange is in no wise a partisan organization. Its members are perfectly free to act with the party of their preference. Questions of political economy, however, are freely discussed in its meetings, but never from a partisan standpoint. All such discussions are conducted in the way of practical education as to the needs, rights and duties of American citizens, and with special reference as to what measures are most conducive to the needs and interests of the farming community. In this direction much has been accomplished and much progress has been made in work not yet fully accomplished.

In reference to what the Grange has accomplished it may be remarked that it opened and exerted a large influence in the discussion which finally led to the elevation of the Agricultural Department to its proper level and making its head a full cabinet officer.

It was also mainly through the efforts of the Grange that the interstate commerce law was passed, which has brought much relief to the farming community in several States. It has failed to accomplish any material benefit in California, for reasons which are well known.

The Grange was largely instrumental in securing the passage of the antitrust law by the last Congress, and is now supplementing that work in its efforts to secure legislation which will put a stop to dealing in futures, which consists chiefly in gambling on the products of the farm, to the great detriment of the producer.

It has ever been a consistent advocate for the purification of the ballot box, and to that end was among the earliest to advocate the introduction of the Australian ballot system, and it is largely, if not mainly, through the efforts of the several State Granges that the Australian system is now in operation in no less than 26 States.

The passage of the national oleomargarine law was mainly accomplished through the efforts of the Grange.

Among other measures of political reform in the interests of good and equal government, in which the Grange is taking an active interest may be mentioned—a graduated income tax; the election of United States Senators and the President by a direct vote of the people; a Government postal telegraph and telephone system, and a free rural mail delivery. It is also doing much in the way of introducing business cooperation, and in the establishment of mutual fire and life insurance companies.

MEMBERSHIP OF THE GRANGE.

According to recent statement of Mortimer Whitehead, the lecturer of the National Grange, taking the Grange at large through the country, it was never before in so flourishing a condition as now, and never better equipped to accomplish its highest object—the education and elevation of the American farmer. During its existence, over 27,000 charters have been issued to subordinate Granges, which have reached every State in the Union. During the past year new Granges have been established in 23 different States, showing that its progress is universal throughout the country. The State of New York has organized 107 new Granges during the past 12 months. Pennsylvania has gained 6000 new members. Over 1000 delegates and visiting members attended the meeting of the last National Grange at Springfield, Ohio. That was considered one of the best sessions the organization has ever held. The Grange may now be claimed as

A PERMANENT INSTITUTION.

Of the country. It has already in contemplation the building, at an early date, of a Grange Temple, at Washington, D. C., for the headquarters of the National Grange. The principles of the Grange have been thoroughly tried, have stood the test of time and command the respect of all good men and women everywhere. They are ever found on the side of justice, equality, education, temperance and morality. They take hold of everything that goes to build up a great, good and powerful people.

The Agricultural Chatauqua.

A Suggestive Topic for Grange Discussion.

Upon reading the editorial in last week's RURAL we were all surprised that the idea of adopting the Chatauqua plan to agricultural studies had not been put in practice long since. It has done more than any other movement to build a bridge between science and practice and bring the university to the home of such as cannot leave home for the university.

In this way it has extended the empire of letters and multiplied the numbers of well-informed people in America.

In no department of learning does it offer such advantages as can be secured to farmers by a concerted and thorough effort to systematize existing means of information in a way that we may acquire a solid foundation for such a knowledge of agricultural matters that we may classify, retain and apply what we learn. We enter a carpenter shop well stocked with tools and undertake to do a job of work. We know how to use a few of the tools and have a general idea of what is wanted but spend time, material and temper in securing a result by no means satisfactory.

The trained mechanic takes the same tools and material and makes no false motion until a good job is done.

Now you have noticed the same difference between people who take up a book or paper or listen to an address. One catches no idea, another a vague one that he cannot apply, while a third can reproduce the thought or put it in practice. The capacity to use the experience of of others as the trained mechanic uses tools is what we want the Agricultural Chatauqua to give to us and the boys and girls who are to be the farmers a few years hence. Teach them the use of intellectual tools and thereby make the information available for practical use that is now afloat about as far beyond the reach of the average farmer's power of practical application as though printed in a foreign tongue.

One of our successful fruitgrowers was telling of a brother in Texas who had some fine peach land and thought he would start a large orchard. He was given a careful outline of the methods that secure the best success in all California and applied with "California Fruits" and all other of the latest works on practical fruit culture.

After several years our friend revisited Texas and reported that his brother had the most horrible orchard that you ever saw. He had hardly acquired a single correct idea from all his reading or advice. The lesson was, that a book is of little use to one who does not know the use of books.

As last week's editorial implies, this is one of the things that the paper cannot attempt to do; viz—undertake systematic training in the power of assimilating knowledge. We can supply the troops with ammunition but somebody else must act as drill sergeant.

Any student of the causes of agricultural progress will recognize that the most hopeful place to begin the use of fertilizers is the farmer's brain. In enriching your orchard you use materials calculated to add such vigor to the tree as to produce the largest crop of fine fruit. You work toward the dollar. Just so with this plan of improvement let it be with the view of extending and systematizing knowledge of farm affairs rather than to make us more like lawyers or poets.

The Grange is the place to discuss this and to devise plans for carrying out the work, remembering that the community will do for the Grange in exact proportion to what the Grange does for the community.

If you will read and discuss these articles before your Grange, and report your discussion, thus indicating a popular demand, we will do all that the paper can to further the movement, and think that it can find substantial aid and direction from both of our universities. There is a great deal of free information to be had, and many ways of getting cheap and valuable books and taking advantage of the experience of such as have been teachers or successful farmers in the Grange.

Almost every one who thinks carefully along this line will have some useful suggestion. Come let us put in the evenings of this winter to better advantage than we have ever done before. We will sit up nights and study with you if we can only feel that there is a good class of earnest workers, enthusiastic in their desire to learn.

We are starting in to hoe a very long row with the hope that a favorable season may produce the best crop that farms ever raise, and the one most productive of paying results—practical ideas.

Our encouragement to effort along this line and our success in securing cooperation from the universities or other sources will depend largely on the demand for such work, as indicated by replies received to these communications. Now, if any individual or any Grange has any word of suggestion or encouragement, let it be considered a duty, to self and to the cause of progress toward a brighter future for toilers, to write at once and let us know if we are in a line that will secure cooperation.

The National Grange.

The 26th annual session of the National Grange will be held at Concord, N. H., opening on Wednesday, November 16th, and continuing ten days. From the activity and enthusiasm manifested among Patrons everywhere, and particularly among the 60,000 in New England, it is expected that the coming session will eclipse all of its predecessors in both numbers and interest. It is confidently expected that the attendance will reach fully 2000. An interesting program has been arranged, which embraces excursions to the White Mountains and other points of interest in the more immediate vicinity of Concord.

The Sunday which will intervene will be devoted to memorial services in memory of members who have deceased during the year.

Subjects of great importance to the agricultural interests of the country will come before the session for discussion and action. The business sessions of the National Grange are always held in the fourth degree, so as to admit a general attendance of all Patrons.

From San Jose Grange.

"Granger," writing us from San Jose, reports that San Jose Grange joined in the Columbus Day celebration, with a float which was perhaps the most unique and attractive feature of the day. It was filled with fruits, flowers and grains and contained the three goddesses—Ceres, personated by Miss Hattie B. Wells; Pomona, represented by Miss Lizzie Webb, and Flora, represented by Miss Nellie Gefferds.

Our correspondent further says: "We would like to know if any other Granges took part in the Columbus Day celebration, and if they prepared floats. At the last meeting of the Grange we began the discussion of the proposed amendments to the constitution and will continue the same until we have completed the list. Of the local committees appointed to arrange for the fruitgrowers, nearly all were members of the San Jose Grange, and it is evident that our Grange is wideawake and ready to help in all good work. We hope that Grangers from other sections will visit the convention next month, as the meeting will be both profitable and instructive. The visitors will be received by the Grangers who compose the reception committee."

The Secretary's Column.

By A. T. Dewey, Secretary State Grange of California.

FOR ANOTHER YEAR'S WORK.

Now that the Annual Session of the State Grange is past, the next thing in order is for each Patron to begin work for the ensuing year, and uniting with others make the coming season more productive of benefits to the Order than any of its predecessors. The harmonious session proved that the Grange is in good working order. It is financially strong, and the opportunity for a good year's work, if all do their duty, is one of the best ever known.

Let individual Patrons study what best to do to double the membership and strengthen the usefulness of their own Grange; then let each Grange in turn plan for a general advance movement throughout the jurisdiction. Study up some new methods of creating interest in the work of the Order and attract the attention and meet the approbation of the younger members of the Grange families who have not yet joined the circle; also to bring other farmers and their families within our gates. On this subject we invite correspondence. Talk the matter up in your families, in your subordinate and Pomona Granges. Let the coming year be one of earnestness, activity, thorough work and a good harvest.

NATIONAL GRANGE.—We have received from M. J. Bachelder, Master of the State Grange of New Hampshire, a supply of blank applications for membership in the sixth and seventh degrees, the former to be conferred at White's Opera House, Concord, N. H., Thursday evening, Nov. 17th, and P. M. on the 18th, and the seventh degree (Priests of Demeter) on the evening of the 18th. From appearances, ample preparations are being made by New Hampshire Patrons to make the session a pleasant one to their visitors from abroad. One thing is certain, attendants will not need their summer clothing, as the almanac says "about these days" at Concord.

RECENT STATE GRANGE SESSION.

The State Grange resolved to oppose the constitutional amendment to increase the salary of lieutenant-governor to $4000 per annum.

IMPORTANT RECORD.—The following resolution offered by J. H. McKune of Sacramento Grange was adopted by the State Grange:

Resolved, That the executive committee of this Grange be and is hereby authorized, in its discretion, to employ a competent person to remain at the Capitol of the State during the session of the next legislature, whose duty shall be: 1. To take charge of the legislation recommended by the Grange and secure an introduction of the proper bills. 2. To keep a registry of all legislators and the action of each on the several measures introduced as recommended by the Grange. 3. To make a full report of such matters to the executive committee.

Resolved, That the data procured from such report and other sources be preserved by the executive committee for future use as occasion may require.

THE following report adopted by the State Grange, referring to one of the proposed constitutional amendments to be voted upon Nov. 8th, will be read with interest:

Your committee on good of the Order, to whom was referred the proposed refunding of the bonded indebtedness of the State, beg leave to report that they have duly considered the same and respectfully report the following:

In view of the law prohibiting the investment of the funds of the university at a less rate than five per cent, and the other fact that the remainder of the indebtedness is to State institutions, except $251,000, we recommend that it be declared the sense of this State Grange that said $251,000 be paid out of the surplus funds in the treasury, and if the remainder of the bonded indebtedness be refunded, the State take them at their present rate of interest.

THE speaking and music at the memorial exercises, according to the program arranged by the committee, were very good and appropriate. Yet some sadly missed the touching volunteer offerings often given at our memorial exercises. We also believe many felt that memorial exercises sandwiched in between business appointments come far from being as impressive as when held in quiet evening session, as has generally been the rule heretofore. The exercises occurred in the following order: 1. Solo by Miss Roxie Dennis; 2. Address by Bro. I. C. Steele in memory of Bro. W. M. Ireland; 3. Address by Sister W. L. Overhiser in memory of Sister N. E. Alling; 4. Music Quartette 5. Address by Bro. Amos Adams in memory of Bro. T. T. Hooper; 6. Address by E. Greer in memory of Bro. H. Davenport; 7. Solo, "Nearer My God to Thee," by Miss Gussie Wilcox; 8. Address by A. D. Logan in memory of Sister P. Peterson; 9. Address by Bro. E. C. Shoemaker in memory of Sister A. J. Woods; 10. Address by Sister Mary Merrill in memory of Sister Jas. Perrott; 11. Music by the Grange.

Addresses were limited to five minutes each.

The entertainment by San Jose Grange was throughout superior and won universal praise from both members and visitors, who will long remember pleasantly the "Garden City" and the Twentieth Annual Session of the State Grange.

One hundred dollars was paid by the State Grange to San Jose Grange toward the rent of hall and other annual expenses.

The Pomona Feast was unsurpassed in variety, decorations and presentation. The tables were entirely supplied, this year, by the local Grange.

INDEPENDENT GRANGE recently received its charter No. 302. We hope the Grange, like its name, will prove one of the best in the circle. Elk Grove also received a duplicate charter for the one burned.

EXECUTIVE COMMITTEE MEETING.

Brother McConnell was absent in Oregon and the regular annual session of the executive committee, usually convened on Monday preceding the State Grange meeting, was only held informally. Several consultations were had by the committee at San Jose but no formal action was taken there by the executive committee, consequently a special meeting was held in the office of the secretary Oct. 18th,

INFORMATION FOR SETTLERS!

The members of the Kern County Land Company have a national reputation for wealth, business and financial ability. These facts set the matter of reliability at rest. The company's capital stock is $10,000,000.

They have 400,000 acres of arable, irrigable lands upon which the sun shines almost constantly; and their enormous irrigation system renders them independent of the annual rainfall.

A clear title; rotation, variety and certainty of crops; easy terms; availability to persons in moderate circumstances; ground ready for the plow—no stones nor thistles; good society; schools; churches, etc., are a few notable attractions of this region of country.

Kern is the largest county in the San Joaquin Valley. It has the finest climate for curing and drying fruits, etc.

The 400,000-acre territory of the Kern County Land Company is the pick of the county.

Its area is 5,184,000 acres.

Has the largest irrigation system in America.

The home of the peach, French prune, pear and raisin grape.

Planting and harvesting can be carried on every month in the year.

No rocks, hills or stumps on the land.

A failure of crops is unknown on irrigated lands.

Kern county fruits take the first prize at the State Fair.

Land can be made to pay for itself in less than three years.

Grows more alfalfa than any other county in California.

The advantages of good soil and plenty of sun, which occur in the Kern Valley, would have been of little avail but for the third and all-important one of an abundance of water from never-failing sources.

Through 300 miles of main canals, and 1,100 miles of laterals, the great Kern river furnishes enough moisture to slake the thirst of the 400,000 acres already referred to.

Drought is out of the question.

The system has been constructed in the most careful and scientific manner. Some of the canals are 125 feet wide and six feet deep.

FOR FURTHER PARTICULARS ADDRESS

KERN COUNTY LAND COMPANY.

S. W. FERGUSSON,
Bakersfield, - - - California.

Bros. Loucks, Walton and Jones being present. In the absence of Master Davis, Bro. Loucks was made temporary chairman. J. D. Huffman, Geo. Ohleyer, Past Masters Hull of Yuba City and Walter Renwick of Temescal Granges were among the visiting Patrons. A number of bills were audited and ordered paid. The Committee on Women's Work was allowed an appropriation for the year not to exceed $50.

A remittance on account of dues was voted Elk Grove and Kibbesillah Granges on account of their losses by fire. The publication of the by-laws and the annual proceedings was left for further arrangement.

THANKSGIVING DAY.

What pleasant memories come to mind at the mention of this festive season, which has now become a national holiday. It is one of the best days of all the year for Granges to gather their families together for social and fraternal reunion. It affords an opportunity for having a pleasant occasion without much formality. Like a good picnic, "it somehow does itself." It brings forth pleasant memories and a better feeling toward all humanity. We do not believe any Grange ever attempted a Thanksgiving reunion that anybody was sorry about.

We therefore thus early urge Patrons of every Grange, large and small, to come together on Thanksgiving Day, which will doubtless be on Thursday, November 24th. These are days when the sisters are always found foremost. Who will write us some words of encouragement for those who may feel doubtful about celebrating on account of their Grange not being in the most prosperous condition? Is it not a good time for weak Granges to call for an arousing meeting?

GRANGE ANNIVERSARY DAY comes Sunday, Dec. 4th, this year. Most Granges will doubtless celebrate on Saturday.

MRS. S. J. CROMARTY has been elected secretary of Watsonville Grange.

ST. JAMES HOTEL was really headquarters for Patrons between daily sessions of the State Grange The proprietors, Mr. and Mrs. Tyler Beach, did their best successfully to make so large a number comfortable.

Possibilities of the Grange.

The following is from an editorial in the current number of the *California Orchard and Farm:*

We are convinced that the California Grange can build itself into a powerful order by following the example of ten or twelve eastern Grange States, which have made cooperation in dealing and insurance a leading feature, succeeding to a wonderful extent. Our first effort will be directed to securing reliable information on this question, and we hope to have the aid of well-informed Grange members in carrying out this purpose.

A need for cooperation in marketing is generally recognized among the orchardists, as well as other lines of rural occupations, and all that stands in the way of practical operation is the want of confidence that producers will hold together. Here is the opportunity for the Grange. Its reputation for honesty and stability will inspire the fullest confidence, and give it a splendid chance to undertake cooperative transactions for the producers that seem impossible to inaugurate in any other way. Such work as this, if cautiously managed, will help the Grange and bring in a desirable class of members, who will be attracted by such proof of its usefulness. It is an absolute fact that the strongest Granges in existence are those engaged in buying and selling for their members, without which the national Order would be struggling for life, instead of having a well-filled treasury. The business Granges constitute but 25 per cent, but furnish 75 per cent of the revenue that reaches the National Grange treasury.

In California we have one, Two Rock Grange, that has been built up by a judicious blending of business with sociability, and we predict that the success of this Grange will cause many others to follow in the same line, resulting in a larger and more vigorous membership for the State.

FOR $19.00

We can send you one of our

SPECIALTY SINGLE BUGGY HARNESS,

Which is the result of years of figuring to make the best harness ever known for the money. It is made from oak stock, hand stitched and finished by skillful mechanics, handsome full nickel or Davis hard rubber trimmings.

Just the Harness for an Elegant Turnout.

They sell here for $25.00, and harness not as good is often sold for $35.00 in retail shops. If harness is not as represented, money will be refunded.

Liebold Harness Co.

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Collar and Hames, instead of Breast Collar, $2 00 extra.

Please state if you want single strap Harness, or folded style Harness, with traces double throughout.

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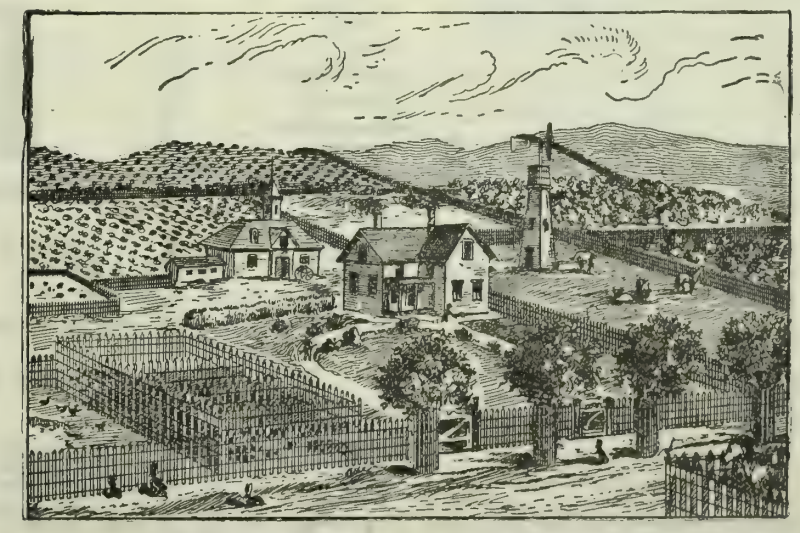

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The State Alliance Meeting.

In their annual meeting at Sacramento on the 18th, 19th and 20th inst. the State Alliance discussed mainly the following subjects:—

Land.
Transportation.
Monopoly.
Money.
Cooperation.
Immigration.

As Alliance leaders are the principal promoters of issues represented by the People's Party they were discussed from a standpoint already made familiar in the political campaign. The point was well taken that these issues have been evolved from the people while the great parties have received theirs as legacies from their leaders.

A cooperative plan was inaugurated based upon successful experience at Compton of a store modeled after the famous Rochdale plan so popular in England. The idea is to begin prudently, develop as patronage extends and share the benefits accruing from a cash system and large purchases. With careful management and records of failure as well as success always in mind this system promises to confer substantial benefits to its patrons and hence add strength to the Order.

It was recommended that the State operate a plant at Folsom similar to that at San Quentin and also keep on hand a supply of the raw material sufficient to meet probable demands of market and discourage speculation on jute and sacks.

It was desired that the general government take immediate and efficient action to prevent further injury to streams from sedimentary deposits and also dredge and levee so far as necessary to preserve the streams in the best condition for commerce

The movement of those hostile to the present system of publication of school text books was denounced as proceeding from interested motives and the present plan was commended without endorsing all works published under that plan.

Sympathy was extended to those who are trying to bring about a better condition of wageworkers and it was recognized that the value of a market depends upon the purchasing capacity of the people. Concentration of wealth so far as it implies increase of paupers was recognized as a great evil.

To secure a more just and perfect assessment an Act of the Legislature was sought, requiring that all notes, bonds and other evidences of indebtedness should become void and incapable of collection by law in case they had passed a year without an official stamp to show that they had been assessed.

One of the most promising features of the session was the inaugural address of President J. L. Gilbert, of Fresno, outlining a policy of earnest and active work to increase the members and promote the interests of the Order. Most of his time and that of State Lecturer Cornell will be devoted to the work. The earnestness and efficiency of these officers has already been demonstrated in a way that inspires the Order with great confidence.

C. W. Thresher, of Butte county, was chosen for vice-president, and J. M. Moore and J. S. Barbee were continued in office as State agent and secretary and treasurer respectively. E. M. Wardall, of Los Angeles, L. M. Landsborough, of Sacramento, and Geo. B. Johnson, of Santa Clara, were chosen as executive committee.

Such were the leading results of an interesting and profitable session, showing the capacity of the Order for prompt transaction of business.

Best's Agricultural Works.

The Agricultural Works at San Leandro during the last s xty days have been enlarged and rehabilitated with new and the latest improved machinery. A building 144x110 feet, two stories, is being erected and will be covered with corrugated iron. This building will be devoted to combined harvesters, while the old harvester building will be used exclusively for traction engines. The hum of industry and extensive preparation for a large output of agricultural machinery are prominent features at this great plant. Our reporter counted six traction engines on the stocks and was informed by Mr. Best that he would build over 50 combined harvesters for next season. As usual Mr. Best has been awarded a string of first-class premiums and medals at the State and District Fairs.

Unitarian Literature

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The weight or thickness of metal used, is graded according to service required, and pressure to which the Pipe will be subjected.

FOR ALL UNDERGROUND PURPOSES, we immerse the Pipe in a bath containing a special mixture of ASPHALTUM, PITCH and PETROLEUM, at a Temperature of 300° Farenheit. It thus receives a thorough coating, both inside and outside, rendering it impervious to the alkalies of the earth, rust, etc., and is practically indestructible.

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14	ROLLS,	$8.12
18	"	10.08
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44	"	23.76
60	"	31.80

In small kegs, solid packed, sweet and choice, for family use,

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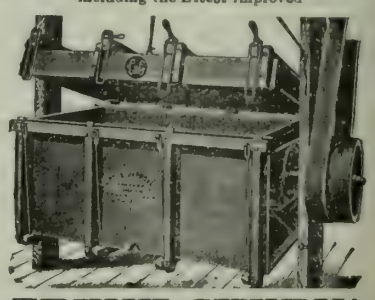

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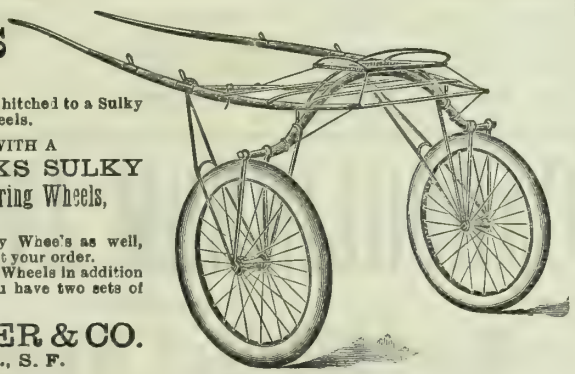

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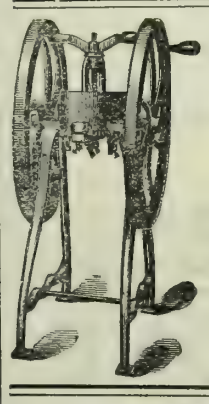

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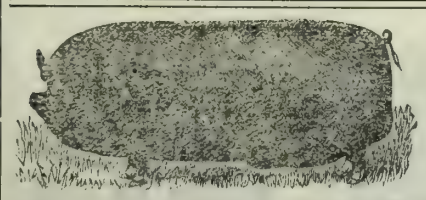

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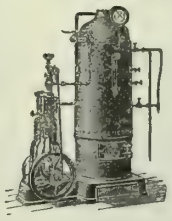

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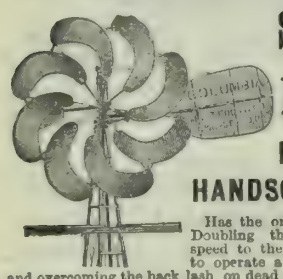

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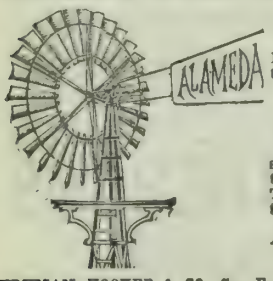

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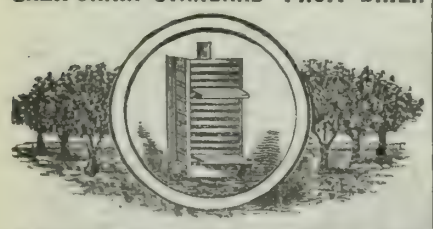

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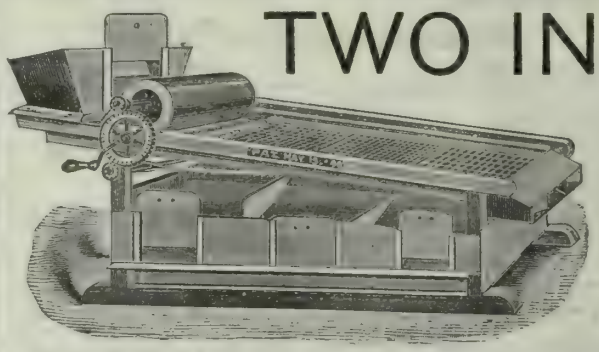

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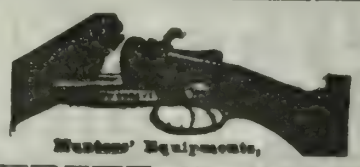

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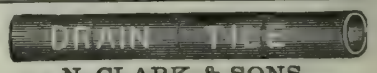

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S. F. Market Report

Market Review.

San Francisco, Oct. 26, 1892.

The local money market is essentially unchanged. While bank reserves ar reported to be steadily gaining, yet there does not appear to be any disposition to let out money below a certain percentage. Thisspirit of caution seems to be developed to a larger extent now than at any time within the past three years. Remittances from the interior are only fair, while the demand is steadily falling away The election and Thanksgiving Day in next month and the usual holidays in December make inroads into the general business and until they are all passed an improvement is hardly likely to set in. The wheat markets of the world have been slowly settling under renewed strong bear pressure and an almost total absence of speculation. Continued heavy marketing of the cereal at the East is an important factor in undermining the markets, for the wheat movements in this country appear to be the barometer by which Europe gauges the markets. The requirements of Europe are now placed at higher figures, while the crop in the United States is placed at about 525,000,000 bushels against 495,000,000 bushels one month ago. Even at the higher estimate the crop is fully 100,000,000 less than was the yield in 1891. While giving the increased estimate yet the fact must be kept in view that crop reports and estimates are in many instances largely controlled by operators in railroad securities. There is a general concurrence of opinion that more railroad shares and bonds are held in this country than ever before known. This increase has been due to the panicky times in Europe causing holders abroad to unload. With heavy holdings in this country and a healthier and a more general growing feeling of confidence abroad it is but natural that the pools or syndicates at the East should be casting about to sell back to Europe; this can be the better done by creating the belief that the cereal and other crops in this country are very heavy which will increase the income of the railroads when the products begin to move freely. Europe is already beginning to buy our securities quite heavily.

There appears to be a more general impression probably grounded on past experience, that the consumption of wheat the current cereal year will be very heavy and as the season draws to a close the reserves will be still further reduced. That this opinion is well grounded appears self-evident and does not require enlarging to convince the most skeptical. It is quite generally admitted that the low average prices which have obtained for wheat during the past five years have not only enlarged the demand but have also increased the consumption per capita, both of which are important factors to be considered in estimating on the world's requirements. So large and steady has been the increased demand from these two sources that consumption the world over has steadily gained on production, until the latter does not now equal the former, which has about eaten up the reserves. This would make itself more keenly felt were it not that it is largely neutralized by steam and electricity, both of which can be and are called into service to draw, quickly, supplies from any given point.

The local wheat market the past week was somewhat interrupted by the Columbus festivals. Even with this past, there does not appear to be any general disposition on the part of operators to enter the market to any great extent until after the elections. Probably this is magnified so as to bear the market as much as possible. The large tonnage in port and to arrive makes it quite certain that outward charters will have to weaken, provided ship-owners wish to keep their vessels in service. Wheat gains by ships weakening, The offerings of wheat the past week were light, but light as it has been, shippers claim that, only in exceptional cases, they have been able to have their wants met without bidding upon the market, or, in other words, by not paying above the parity of European markets.

Barley has held to firm prices with, toward the close, a tendency to still better figures. There is no denying but the crop in this State was largely in excess of that in 1891, yet it is equally as certain that low prices and poor pasture have induced larger feeding, while for export the demand has been largely in excess of the call last year. There are those in trade who feel quite confident that the current season will go out with a small reserve, and in taking this view of the situation they are quite hopeful of better prices later on.

Oats have come in quite freely the past week, but the market absorbed the receipts without causing lower prices to obtain. The strength of the market is accepted as evidence that the crop in Oregon and Washington is short and that the supply later on will be quite light. Whether this opinion is well-grounded it is hard to say, but the fact remains that the tone to the market is not only strong but healthy. Corn has held to weak prices, under fair receipts and only a moderate demand. Rye has been irregular and only dealt in to a limited extent.

In ground feed, bran has weakened off with an easy feeling at the close, but middlings have held fairly firm. Heavy receipts and free offering of the former broke prices. Feedmeal has been slow at easier figures. The consumption of roll barley has been quite heavy in the country, while the demand for ground barley at the logging camps has been free. The consumption of ground feed so far in this season has been fully 50 per cent greater than it was during the like time in 1891.

Hay has met with a fairly steady call. The rain, followed by cool, foggy weather in some localities, is said to be improving natural feed, which is having an effect on the demand. Although there is a lessened call, yet there is nothing apparent to warrant the belief that feeding has fallen off; the lessened call is only an evidence that large feeders are not anticipating their wants, or else have liberal supplies on hand.

Butter has eased off under a stronger selling and buyers not being disposed to anticipate their wants. The offerings, are, it is said, largely in excess of current requirements. The stock of Californian in this city is largely in excess of the quantity on hand at this time in 1891. The quantity of pickled is about 1700 barrels more, and that in kegs about 1200 kegs more. While Californian shows a large increase, that of Eastern is very considerably less, and, what is more, the price of gilt-edged in the central States is above the parity of this market, which cuts off the supply from this source. It is quite generally claimed that the stock of pickled and solid-packed is not only larger in this city, but at other large distribution points it shows a corresponding increase. Cheese has held barely steady. The demand is only moderate, while receipts have been fair. The supply in this State to draw from is said to be quite large and a menace to the market. Eggs have moved up under lessening stocks of Eastern, light receipts of Californian and the markets in Utah and in the central States being quoted higher. Sales of round lots to arrive of fresh Eastern have been made at an advance.

The season for several varieties of gardentruck is going out, which causes quotations to be largely nominal. Cabbages, cauliflower and celery are in buyers' favor. Onions have come in only fairly free, but in the absence of any marked demand the market was slow, with only the more choice good-keepers wanted. The receipts of potatoes have been very heavy, but the bulk which came to hand were only poor to fair, and it has been the pressure of these on the market that caused lower prices to obtain than otherwise would. Choice good-keepers are steadily appreciating at the expense of the poor varieties, which causes a weaker range in quotations.

Mexican oranges are coming in fairly free, but the quality being only fair they meet with an indifferent demand. The incoming crop in California promises to be large and of most excellent quality, provided they are not overtaken by frost. Fears are expressed that we will be visited by early and severe frosts.

The fresh-fruit market the past week has been more or less unsatisfactory. Rains, and humid weather since, have about ruined grapes, owing to their being poor keepers, which necessitates forced sales before rotting. This applies to both wine and table varieties. There are no choice apples or pears in the market, and with heavy supplies of poor to fairly good, the market hangs heavy and decidedly unsatisfactory. Wine grapes have had a wide range the past week, selling all the way from $8 to $15 per ton

The supply of both dried prunes, apricots and plums in this State is quite light. There was shipped from San Jose alone the past week over 1,400,000 lbs. of prunes which, combined with previous shipments has about drained up the pack in Santa Clara county. Other shipping points note a corresponding condition. The shipments of other dried fruits are quite free. These shipments are made on sales made earlier in the season, for at this writing our market is slow with quotations largely nominal. To buy, full prices have to be paid, but to sell, concessions must be made.

Raisins do not appear to have shown any material change. Heavy shipments are being made to the East. The weather has been unfavorable to curing in some localities, but in the southern part of the State it has been quite favorrble. New York advices to October 21, report that market as follows: Valencia raisins are cabled decidedly stronger from primary sources, with best brands layer goods held at 18s@18s 6d cost and freight. Notwithstanding this spot stock is offered with considerable freedom and at prices showing no material change from those current the past few days. From vessels discharging and ex store 5¾c is asked for off-stalk and 6¾@6⅞c for layer, but there are goods on the Assyria, the latest arrival, which offer at 5⅝@6⅝c. To arrive we are reported sales of 3000 boxes layer at 6½c. California are in moderate demand and prices appear steady. New London are held at $2.25; three-crown loose in boxes, $1.90@$2; do in bags, 6½c, and two-crown do, 5½c. Old are passing out quite freely at 5¼c for two crown in bags, and 5¾@6c for three-crown.

Markets by Telegraph.

Wheat Strong, Barley Lower in England.

London, Oct. 24.—The Mark Lane *Express* says: English wheat has slightly advanced in the provinces but is unchanged in London; foreign has ceased to advance: best California is quoted at 34s, Oregon 34s 6d and Duluth at 35s. To-day wheat and oats were dull and corn strong owing to diminished supplies. Flour was slightly cheaper and barley 3d lower.

Canned and Dried Fruit Quiet.

New York, Oct. 23.—Canned Fruits—There has been no inquiry for any lines; old prices are unchanged, with peaches very firm. Unpeeled, evaporated peaches range from 13c to 16c for fair to fancy, with the demand chiefly for the best. Prunes exhibit no particular life. Two carloads of four sizes sold at 11½c spot. Apricots are steady and unchanged.

Chicago, Oct. 25.—There was a slight reduction noted in the value of nectarines, but aside from that no changes appeared. There does not appear to be any particular rush of trade at present, but more of a quiet feeling prevails. Prunes are wanted about as much as anything and as yet the supply is small. Raisins as yet are quiet, but in a short time the holiday trade will open, and then an improved trade is expected.

Honey Advancing; Lima Beans; Futures Firm.

New York, Oct. 24.—Honey—The general trade has already realized the scarcity of California strained, and 8¾c is readily obtained. Lima Beans: Shipments of lots brought here for the West are going freely. The tone of the market seems sound for better future prices, but there are few buyers above $2 per bushel spot at that moment.

Hops Irregular.

New York, Oct. 24.—The hop market is unsatisfactory. Direct trading with interior State points continue to seriously cut into the spot fall business. The cable is not stimulating; England feels the depressing effect of some liberal shipments which were uninvited. Quotations are unchanged for all State or Pacific. Exports for the week are 1505 bales.

Desirable Wool Is More Buoyant.

New York, Oct. 23.—Wool develops more buoyancy than has been common. The buyers' menace of sending to the interior for supplies is no longer potent, for the clip is practically forwarded to the seaboard. Sellers comprehend their more independent position and decline to listen to suggestions of shading for any decent line. Besides, it is whispered that an outside speculative interest is springing up that may compete with manufacturers who "dicker" too long for the yet cheap desirable parcels. Sales at New York: 41,000 pounds of scoured California; 9800 pounds of spring and 372,000 other domestic on private terms; also 575,000 pounds of foreign of low grade. Sales at Boston: 3,023,600 pounds of domestic, including 543,000 pounds of foreign, mainly Australian. Fall California is quoted low and irregular on account of its heavy, seedy condition. Philadelphia quotes full quotations for all grades.

Foreign Hop Crops.

Washington Hop Crops.—A report on the German and English hop crop, prepared by Consul-General Mason at Frankfort, has been received at the Department of State. The crop for this year in the German States is estimated at 48,300,000 pounds, about 1,500 000 pounds more than the crop of 1891, and 4,258 000 pounds less than the average yield of the past ten years. One-half is of high quality and a large portion of the remainder is fair. The English crop showed a total product of 40 000,000 to 42,000,000 pounds. This deficit brough to Germany a swarm of English buyers, who are purchasing heavily inferior grades of the new German crop Notwithstanding this, the market is nominal and steady.

Distrustful of Raisins.

New York, Oct. 24.—The market is dull; the distrust of the quality continues, based on our early samples. Faultless three-crown bags are quoted at 6½@7c; two-crown, 5½c; fair to prime boxes, loose, $1.75@2; layers, $2.25; all spot.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	Oct.	Nov.	Dec.	Jan.	Feb.
Thursday	6s02 d	6s01 d	6s02½d	6s03 d	6s03¾d
Friday	.....	.....	.....	.....	.....
Saturday	.....	.....	.....	.....	.....
Monday	6s00 d	6s00½d	6s01¼d	6s02¼d	6s03 d
Tuesday	5s11½d	5s11¾d	6s00¾d	6s01¾d	6s02½d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market for P. S.
Thursday	33s6d	33s9 1	33s6d	Quiet.
Friday	....	....	....	
Saturday	33s	33s6d	33s	Steady.
Monday	33s	33s6d	33s	Slow.
Tuesday	33s	33s3d	33s	Quiet.

To-day s cablegram is as follows:

Liverpool, Oct, 26.—Wheat, better tone. California spot lots, 6s 10½d: off coast, 3 s; just shi, ped, 33s 3d; nearly due. 33s; cargoes off coast, slow; on passage, very inactive; Mark Lane wheat, rather easier; French country markets, quieter; weather in England, frosty.

San Francisco.

WHEAT.

	Seller '92.	Buyer Oct.	Buyer Dec	Buyer Jan.	May
Thursday, high-st	133½	....	136	....	139⅝
" lowest	133	....	135½	....	139¼
Friday, highest	....	....	....	....	...
" lowest	....	....	....	....	....
Saturday, highest	....	....	....	....	....
" lowest	....	....	....	....	....
Monday, highest	....	....	135½	....	139½
" lowest	....	....	135¼	....	199⅛
Tuesday, highest	....	....	....	13⁷¼	139
" lowest	....	....	....	135	138⅞

The following are to-day's recorded sales on Call:

Morning Informal.—Wheat, Buyer December, 100 tons, $1.35; 100, $1.34¾; 1100, $1.34⅞. May, 100 tons, $1.38¾; 200, $1.38⅝ per ctl. Regular.—Buyer December, 600 tons, $1.34¾; 700 tons, $1 34⅞. Seller 1892, 200, $1.32½. January, 100 tons, $1 35; 3 0, $1.35¼. May, 100 tons, $1.38⅝; 3.0, $1.38½ per ctl. Afternoon.—Buyer December, 400 tons, $1.34⅞ per ctl.

BARLEY.

	Seller '92.	Buyer Oct.	Buyer Dec.	Buyer Jan.	May
Thursday, highest	....	....	90	89	....
" lowest	....	....	90	89	....
Friday, highest	....	....	....	....	....
" lowest	....	....	....	....	....
Saturday, highest	....	....	....	....	....
" lowest	....	....	....	....	....
Monday, highest	....	....	89	89½	....
" lowest	....	....	88⅝	89½	....
Tuesday, highest	....	....	91⅜	9 ½	....
" lowest	....	....	91	90¼	....

The following are to-day's recorded sales on Call:

Regular Session.—Barley, December, 100 tons, 90c. Janu- 500 tons, 90½c per ctl. Afternoon—May, 100 tons, 94⅝c; 200, 94¾c per ctl.

Eastern Markets.

The following shows the closing prices of wheat for the past week at

New York.

Day.	Oct	Nov.	Dec.	May.
Thursday	129½	129½	133	143⅛
Friday	....	....	....	....
Saturday	128¼	129¼	131⅞	143
Monday	128⅛	129⅛	131⅝	143⅛
Tuesday	127½	128½	131	143½

The following is to-day's telegram:

New York, Oct. 26.—Wheat, 78⅞c for December, 80c for January and 85½c for May.

Chicago.

Day.	Oct.	Dec.	May
Thursday	....	....	....
Friday	....	....	....
Saturday	119⅝	123¼	131½
Monday	120	123⅝	132¾
Tuesday	119½	123	132

The following is to-day's telegram:

Chicago, Oct. 26.—Wheat, 73⅞c for December and 79⅝c for May.

General Remarks and Statistics.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending Oct. 25, '92, were as follows:

Flour, qr. sks	162,601	Bran, sks	9,625
Wheat, ctls	237,634	Buckwheat "	....
Barley, "	34,694	Middlings "	2,851
Rye, "	....	Chicory, bbls	125
Oats, "	26,535	Hops, "	364
Corn, "	9,290	Wool, "	2,556
*Butter, "	552	Hay, ton	2,077
do bxs	703	Straw, "	54
do bbls	335	Wine, gals	226,170
do kegs	529	Brandy, "	22,370
do tubs	....	Raisins, bxs	8,182
do ½ bxs	25	Honey, cs	47
†Cheese, ctls	601	Peanuts, sks	45
do bxs	196	Walnuts "	48
Eggs, doz	16,500	Almonds "	282
do " Eastern	21,700	Mustard "	565
Beans, sks	33,516	Flax "	665
Potatoes, sks	30,443	Popcorn "	....
Onions, "	5,663	Broom corn, bbls	....

*Overl'd, — ctls. †Overland, — ctls.

Exports by Sea from San Francisco from July 1 to Oct. 19

	1892-93	1891-92
Wheat, ctls	3,462,314	5,078,606
Flour, bbls	408,528	366,621
Barley, ctls	673,402	448,215

Tonnage Movement.

From reliable advices up to Oct. 26, the following summary tonnage movement is compiled:

	On the way 1892.	On the way 1891.	In port 1892.	In port 1891.
San Francisco	273,607	437,962	*154,8 3	99,157
San Diego	11,378	21,489	8,138	.....
San Pedro	4,9 5	5,954	....	
Oregon	53,299	33,346	31,071	12,555
Puget Sound	22,794	25,843	.....	
Totals	366,003	527,294	194,102	111,712

*Engaged for wheat, 1892, 54,834; 1891, 90,372.

Cereals.

The London *Times*, in its last report on the English wheat crop, gave the average yield for each county for the past seven years, based on which the average yield for England, Scotland and Wales would be 24½ bushels per acre. This would make the total wheat crop of the United Kingdom 56,325,000 bushels, against 74,742,000 bushels. This crop would necessitate imports of at least 160,000,000 bushels, and possibly 170,000,000 bushels, but for the large stocks on hand at the beginning of the year.

Although the statements have been recently made that there were enormous supplies of wheat in south Russian markets, the statistics October 1st show small stocks on hand relatively, and reliable advices from Russia indicate that rye is selling for more at the interior than it is at the seaboard. The amount of wheat in sight is pressing on the market, but with the American crop 100,000,000 bushels less than last year, the increase in the amount in sight must be at the expense of the invisible supply. As a small crop cannot furnish larger receipts than a large crop without being more than correspondingly reduced, it is likely that toward the end of the season there will be a great falling off in receipts. Parallels drawn with the present condition show that in 1886 stocks were about the same, and from October to the following June, prices of wheat advanced 21 cents a bushel

The stocks of wheat in the principal continental markets of Europe amounted to 18 426,000 bushels, October 1st, against 16,212,000 bushels September 1st. Of this total, 1,272,000 bushels were at Antwerp, against 736,000 bushels; Havre, 1,544,000 bushels against 2,520 000 bushels; Dunkirk, 1,104,000 bushels against 1,288,000; Paris, 2,448,000 bushels against 2,320 000 bushels; Mannheim, 1,400 000 bushels against 2,000,000 bushels. The stocks in Russian ports were: St. Petersburg, 560,000 bushels against 536,000; Odessa, 2,800,000 bushels against 1 960,000; and Nikolaiev, 1,416,000 bushels against 560,000 bushels.

An item from St. Petersburg, dated October 2d, says that the rye crop in the northern provinces of Petersburg, Novgorod and Kever is about one third less than was expected. The quality of oats is fair, but the quantity is inferior. The new crops in the province of Kamenitz are in critical condition, owing to prolonged drought.

The local market to-day was steady for wheat. The offerings were light with sellers' views above those of buyers.

Barley was firm for bright grades with choice to giltedged wanted. Dark grades were steady under moderate offerings and a fair demand.

Corn was dull and heavy at the lower quotations. The stock here is in excess of the demand.

Oats were strong at the advance. Receipts do not appear to meet the requirements.

Rye was steady.

Feedstuff.

Ground feed met with a fair inquiry to-day. While dealers were disposed to meet sellers on ground or roll barley, they higgled over bran and cornmeal.

Hay was reported a shade easier to sell. The weak feeling was not due so much to the receipts as to large dealers and feeders wants being temporarily met, and a desire to watch the weather.

Vegetables.

The market is poorly supplied with gardentruck. The market was fairly steady. All kinds of roots were weak with some kinds quoted lower.

Onions were fairly firm. Sales were made of choice good keepers for shipping at 60 cts.

The receipts of potatoes were very heavy to-day, and as the demand was offish, lower prices had to be accepted to secure buyers.

Dairy Produce.

The butter market was demoralized to-day, with the general opinion that still lower prices will be seen before there is much stability. By the single box sales are made at times at a slight advance, but this depends on the buyer. We saw the same grade of butter sold to-day at 32 and 34 cents. The latter price was secured from a buyer who was anxious to get that brand, while the lower price had to be accepted to close out the consignment.

Cheese was slow but steady.

Eggs were stronger to-day. Sales were quickly made at 42½ cts. for large sized selected, white, of strictly fresh laid, while in a small way 45 cents was realized. The entire line did better to-day.

Fruit.

Our review covers to-day's market for all kinds except wine grapes, which were steadier with a slight advance obtained for choice.

Dried fruit and raisins did not show any material change. There was some closing out to-day of "odd and end" consignments of different kinds of dried fruit by two commission houses. The remarks under review cover to-day's market.

Live Stock.

The market has moved along the past week in the usual groove. The tone appears to be slightly firmer, yet with free-selling offers, buyers become more reserved and bid slightly lower. This applies to all kinds.

Miscellaneous.

The receipts of eastern poultry the past week were quite free, and as they come graded and are usually larger-sized and in better condition, they go off quickly at an advance on Californian. The latter comes in mixed, and otherwise unattractive and not desirable, therefore they are hard to sell. To-day, the sidewalks were crowded with stock, which indicates a weak market.

Hops have held strong throughout the week, with the close pointing to still better prices for gilt-edged. English and eastern advices indicate that the supply of choice to gilt-edged is light, and for which buyers are in the market picking up all that can be secured at a slight advance on bids Growers in this State and also up north who have not sold are quite firm in their advanced views.

Wool is slow and accumulating, owing to receipts being in excess of the demand. Scourers, while running to full capacity, are not able to handle the receipts. A new scouring establishment will commence operations some time next month.

Beans are generally firm. Considerable river beans are said to have been damaged by the recent rains.

Wetmore Bros. received, this week, the first consignment of this year's crop of cranberries from Coos county, Oregon. They were shipped by McFarlin Bros. of Empire City.

Hams, bacon and lard are strong and higher.

(*Continued on next page.*)

General Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

OCTOBER 26, 1892.

BEANS AND PEAS.

Bayo, ctl	2 15 @ 2 25
Butter	2 50 @ 2 80
Pea	2 40 @ 2 65
Red	2 20 @ 2 50
Pink	2 2½ @ 2 25
Small White	2 35 @ 2 60
Large White	2 25 @ 2 45
Lima	3 00 @ 3 15
Fld Peas, blk eye	1 65 @ —
Do green	2 20 @ —
Do Niles	1 40 @ —
Split	4 50 @ 5 50

BUTTER.

Cal., poor to fair, lb	15 @ —
Do g'd to choice	27½ @ 32½
Do Giltedged	— @ 34
Do Creamery	27½ @ 32½
Do do Giltedge	— @ 36
Eastern, lad e	17 @ 20
Cal. Pickled	21 @ 25
Cal. Keg	20 @ 24
East'rn Cr am'y	25 @ 29

CHEESE.

Cal. choice cream	9½@ -
Do fair to good	8 @ —
Do Giltedged	— @ 11
Do Skim	5 @ 6½
Young America	— @ 12

EGGS.

Cal. "as is," doz	20 @ 20
Do shaky	16 @ —
Do candled	25 @ 30
Do choice	32½@ 35
Do fresh laid	— @ 40
Do do s'led whte	— @ 45
Eastern "as is"	18 @ —
Do candled	22 @ 24
Do selected	— @ 26½

Outside prices for selected large eggs and inside prices for mixed sizes—small eggs are hard to sell.

FEED.

Bran, ton	14 50@ 15 50
Feedmeal	26 00@ 27 00
Gr'd Barley	19 00@ 20 50
Middlings	22 00@ 25 00
Oil Cake Meal	— —@ 25 00
Manhatan Horse Food (Red Ball Brand) in 100-lb. Cabinets	— @ 8 00

HAY.

Wheat, per ton	8 50@ —
Do choice	— — @ 13 50
Wheat and oats	8 00@ 12 50
Wild Oats	7 00@ 10 00
Cultivated do	6 00@ 9 00
Barley	5 50@ 8 50
Alfalfa	7 00@ 9 00
Clover	5 50@ 9 00
Straw, bale	30@ 50

GRAIN, ETC.

Barley, feed, ctl	75 @ — —
Do good	82½@ -
Do choice	85 @ — —
Do brewing	92½@ — —
Do do choice	96½@ — —
Do do Giltedge	1 00 @ — —
Do Chevalier	85 @ 1 10
Do do Giltedge	1 15 @ 1 25
Buckwheat	2 50 @ — —
Corn, white	1 20 @ 1 25
Yellow, large	1 07½@ 1 10
Do small	1 12½@ 1 15
Oats, milling	1 37½ @ — —
Feed, choice	1 35 @ — —
Do good	1 30 @ — —
Do fair	1 25 @ — —
Do common	1 17½@ — —
Surprise	1 47½@ — —
Black Oat	1 10 @ 1 25
Do Oregon	— @ — —
Gray	1 30 @ — —
Rye	1 12½@ 1 17½
*Wheat, milling Gl'tedged	1 35 @ — —
Do choice	1 32½@ — —
Do fair to good	1 32½@ — —
Shipping, choice	1 33½@ — —
Do good	1 31½@ — —
Do fair	1 28½@ — —
Common	1 26½@ — —
Sonora	1 25 @ 1 30

HOPS

1892, fair	18 @ —
Good	20 @ —
Choice	21 @ —

FLOUR.

Extra, city mills	3 90 @ —
Do country m'ls	3 90 @ —
Superfine	2 50 @ 3 00

NUTS—JOBBING.

Walnuts, Cal lb.	8 @ —
Do choice	10 @
Do paper shell	11 @ —
Almonds, sft sh'l	12 @ —
Paper shell	13½@ —
Hard shell	6 @ —
Brazil	7½@ —
Pecans, small	11 @ 13
Do large	14½@ 16
Peanuts	3½@ 4½
Filberts	11 @ —
Hickory	7 @ 8
Chestnuts	11½@ 16

ONIONS.

Silverskin	40 @ 60

POTATOES.

River Reds	30 @ 40
Early Rose, ctl.	35 @ 45
Peerless	40 @ 60
Garnet Chilies	40 @ 60
Burbank Seed's	35 @ 50
Do do Salinas	65 @ 1 00
Sweet	50 @ 1 00

Extra choice sell for more money

POULTRY.

Hens, doz	5 50 @ 7 50
Roosters, old	6 00 @ 7 00
Do young	5 00 @ 6 50
Broilers, small	3 00 @ 3 50
Do large	3 50 @ 4 00
Fryers	4 00 @ 4 50
Ducks	4 00 @ —
Do large	6 00 @ —
Do extra large	7 00 @ —
Geese, pair	1 50 @ 2 00
Turkeys, gobl'r.	18 @ 20
Turkeys, hens	17 @ 19

All kinds of poultry, if poor or small, sell at less than quoted; if large and in good condition, they sell for more than quoted.

Manhattan Egg Food (Red Ball Brand) in 100-lb. Cabinets	— @11 50

GAME

Quail, per doz	75 @ 1 25
Ducks	— @ —
Do Mal'd ⅌ doz	4 00 @ 5 50
Do Sprig	2 25 @ 3 00
Do Teal	1 75 @ —
Do Widgeon	1 75 @ 2 00
Do small	1 00 @ 1 50
Geese	— @ —
Do gray ⅌ doz	2 25 @ 3 00
Do White	1 25 @ 1 50
Do Brant	1 50 @ 1 75
Snipe	- @ —
Do English, doz	2 00 @ —
Do Jack, per doz	75 @ —
Hare, per doz	1 50 @ 1 75
Rabbits, large	1 25 @ 1 50
Do small	1 00 @ 1 25

PROVISIONS.

Cal. bacon, heavy, per lb.	12 @ —
Medium	13 @ —
Light	14 @ —
Lard	8½@ 12
Cal sm'k'd beef	11½@ —
Hams, Cal salt'd	13 @ —
Do Eastern	14 @ -

SEEDS.

Alfalfa	9 @ 11
Clover, Red	15 @ -
White	25 @ —
Flaxseed	2 25 @ —
Hemp	3½@ 4
Mustard, yellow	5½@ 6½
Do brown	4 @ —

WOOL.

FALL, 1892.

S Joaquin, plain	6½@ 10
Do mountain	10 @ 12
Do lamb	8 @ 10
Northern Choice	14 @ —
Do Defective	11 @ —
Do Lamb	10 @ 14

HONEY—1892 CROP.

White comb, 2-lb frame	9½@ 12½
Do do 1-lb frame	11½ @ 14½
White extracted	7½ @ —
Amber do	6½ @ —
Dark do	6½ @ —
Beeswax, lb	23 @ —

Dried Fruits.

The quotations given below are for average prices received by commission merchants for consignments by growers. Something very fancy fetches an advance on the highest quotations, while poor sells slightly below the lowest quotations. Prices, unless otherwise specified, are for fruit in sacks; add for 50-lb. boxes ¼c per lb. and for 25-lb. boxes ½ to 1c per lb.

APPLES—1892.

Sun-dried, ¼'s, com'on	2½ @ 3½
Do do prime	3½@ 4
Do do choice	4 @ 4½
Do sliced, common	3½ @ 4
Do do prime	4 @ 4½
Do do choice	4½@ 5½
Evap. bl., ri g, 50-lb. bx	8 @ 9

Fancy, higher.

APRICOTS—1892.

Sun-dried, unbl. com.	4 @ 5
Do do prime	6½@ 8
Do do choice	9 @10
Do bleached, prime	12½@—
Do do choice	13½@ —
Do do fancy	14½@—
Evap choice, in boxes	15 @—
Do fancy, do	15½@—

FIGS—1892.

Sun-dried, black	3½@ 4
Do white	5 @—
Do do washed	— @—
Do do fancy	— @—
Do do pressed	— @—
Smyrna boxes	— @—
Do sacks	— @—

GRAPES 1892.

Sun-dried, stemless	3½@ -
Do unstemmed	1½@ 2

NECTARINES—1892.

Red, sun-dried	8 @ 9
Do Evap., in boxes	— @—
White, sun-dried	9½@11
Do evaporated	- @ -

PEACHES—1892.

Sun-dried, unpeeled	7 @ 7½
Do do prime, bl'ched	10 @—
Do do choice, do	11 @—
Do do fancy	12 @ -
Sun-dr., pl'd, bl'ched	— @—
Do do prime	14 @ -
Do do choice	— @15
Do do fancy	— @16
Evap., peeled, in box. es choice	17½@—
Do do fancy	20 @

PEARS—1892.

Sun-dried, quarters	— @ 3
Do sliced	4 @ 5
Evap., slic'd, in b'xes	7 @ 8
Do ring do	9 @10
Unpeled, qrt'd, bl'ch'd	10 @11

PLUMS—1892.

Pitted, sun-dried	10 @10½
Do evap. boxes, choice	— @—
Do do do fancy	— @ -
Unpitted	4 @ 5

PRUNES—1892

Cal. French, ungraded	7½@ 8
Do graded, 60 to 100	8½@ 9
Do do 40 to 60	11 @12

Fancy sell for more money.

RAISINS—1892.

London Layers, cluster per box	1 90 @2 00
Do choicest do	1 60 @1 70
Do prime pr bx	1 40 @1 45
Loose Muscatels, common, pr bx	— @ —
Do choice do	1 25 @1 30
Do fancy do	— @ —
Unstem'ed Muscatels in sks pr lb.	4 @ 5½
Stemmed do do	— @ -
Seedless do do	- @ -
Do do pr 20-lb. bx.	— @ —
Sultanas, unbl. bxs	— @ —
Do bl'ched in bxs.	- @ —

Halves, quarters and eighths 25, 50 and 75 cents higher respectively than whole boxes.

Twine and Baling Rope.

BALE ROPE.

Sisal, 3 yarns	9
Do, 2 yarns, light	9½
Duplex, 3 yarns	9
Manilla, 3 yarns, heavy	10½
Pure Manilla, 3 & 4 yarns	12
Do, 2 yarns, light	12½

TWINE.

Pure Manilla Hop, in balls, tarred	11½
Do, Grapevine, in balls or coils	12
Do, Spring	16
Duplex Hop in balls, tar'd.	9½
Do, Grapevine, in balls or coils	10½

Wine.

Red and White Wine from bay counties, vintage of 1891, per gal., in cellar lots ..... 12 @20

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

OCTOBER 26, 1892.

Limes, Mex	4 00 @ 4 50
Do Cal	- @
Lemons, box	5 00 @ 7 00
Do Sicily choice	8 00 @ 8 50
Strawberries, per chest—Sharpless	6 00 @ 9 00
Peaches, box	50 @ 1 50
Apples	20 @ 50
Do Choice	75 @ —
Do Extra choice	— @ —
Canteloupes, pr crate	— @ —
Nutmegs, ⅌ box	25 @ 50
Grapes, pr bx— Do White	25 @ 40
Do Black	20 @ 40
Do Muscats	25 @ 50
Do Tokays	20 @ 60
Do Royal Isabel	1 00 @ 1 25
Do Cornichon	50 @ 65
Wine Grapes, Zinf'nd'l, pr tn.	— @16 00
Mission	10 00 @12 00
White	8 00 @12 00
Pears	25 @ 1 00
Quinces pr bx	75 @ 1 25
Extra choice fruit for special purposes sells at an advance on outside quotations	
Beets, sk	— @ 50
Carrots, sk	30 @ 50
Okra, dry, lb	8 @ 10
Do green box	40 @ 65
Parsnips, ctl	1 00 @ 1 10
Peppers, dry, lb	7 @ 9
Do grn Chili, bx	40 @ 60
Do do Bells	40 @ 60
Turnips, ctl	10 @ —
Cabbage, 100 lbs	35 @ 50
Garlic, lb	2 @ 2½
Tomatoes	20 @ 60
String Beans, lb.	3 @ 4
Lima Beans	4 @ 4½
Cucumbers, box	50 @ 75
Do pickle ⅌ lb	1 @ 2
Mushrooms	— @ —
Egg Plant, bx	25 @ 50
Mar'fat Squash, ⅌ ton	5 00 @10 00
Cauliflower	50 @ 65
Celery	50 @ 75

Live Stock.

BEEF.

Stall fed	5½@—
Grass fed, extra	5½@—
First quality	5 @—
Second quality	4 @—
Third quality	3 @—
Bulls and thin Cows	2 @—

VEAL.

Range, heavy	4½@—
Do light	5½@—
Dairy	6½@—

MUTTON.

Wethers	6½@—
Ewes	6 @—
Do Spring	7 @—

HOGS.

Light, ⅌ lb, cents	4½@—
Medium	4½@—
Heavy	4½@—
Soft	4 @—
Feeders	3½@—
Stock Hogs	3½@—

Auction Sales of California Fruits.

At Chicago.

Oct. 19.—Five carloads: Kieffer Pears, $3.65 per box; Beurre d'Alencon Pears, $2.45 per box; Winter Nelis Pears, $2.35 per box; Vicar Pears, $2.15@2.20 per box; Easter Beurre Pears, $2@2.25 per box; Clapp's Favorite Pears, $3.60 per box; Tokay Grapes, double crates, $2.25@3.55; single crates Tokay Grapes, $1.25@1.55; some bad, 85c@1; single crates Muscat Grapes, $1@1.10; single crates Cornichon Grapes, $1.20; single crates Verdelle Grapes, $1.10; single crates Emperor Grapes, $1.05; Quinces, $1.25@1.30 per box.

Oct. 19.—Five carloads: Single crates Muscat Grapes, $1.@1.95; double crates Muscat Grapes, $2.20; Malaga Grapes, poor condition, 50@80c; single crates Cornichon Grapes, $1.25@1.50; double crates Cornichon grapes, $2.15@2 90; single crates Tokay Grapes, 70c@$ .35; double crates Tokay Grapes, $1 90@3.35; Peaches, $1.15@1 90; Plums, $2.20; Pears, $1.35@3; Bartlett Pears, in boxes, $3.15; Bartlett Pears, in crates, $1.40

Oct. 21.—Three carloads: Tokay Grapes, $1.25 per single crate; Emperor Grapes, $1.35 per single crate; Cornichon Grapes, $1.15 per single crate; Verdelle Grapes, $1.10 per single crate; Muscat Grapes, $1@1.10 per single crate; Glout Morceau Pears, $3 per box; Easter Beurre Pears, $2 per box; Winter Nelis Pears, $2 per box. Some damaged fruit sold for less.

Oct. 22.—Five carloads: Kieffer Pears, $3.55 per box; Beurre Clairgeau Pears, $3.35; P. Barry Pears, $2.95; Winter Nelis Pears, $2.35@2.40; Salway Peaches, $1.25@1.40; full crates Tokay Grapes, $2 85@3.35; half-crates Tokay Grapes, $1.30@1.60; full crates Muscat Grapes, $2.75; half-crates Muscat Grapes, $1.25.

Oct. 24.—Four carloads: Winter Nelis Pears, per box, $2.40@2.60; half-boxes, $1.25; Beurre Clairgeau, $3.10; Beurre d'Anjou, $3; Vicar, $2.25; Pound, $1.55; Coe's Late Red Plums, $3.35; half-crates Tokay Grapes, $1.15@1.59; full crates Muscat, $2 25@ ?.55; half-crates, $1.05@1.15; Cornichon, $1.20@1.25; Malaga, 65c@$1.05; Cling Peaches, $1.40. It is raining hard.

Oct 25.—Seven carloads: Double crates Tokay Grapes, $3 30@3.35; single crates, $1 35@1.50; double crates Muscat Grapes, $2.25@2 55; single crates, $1.10 @1 15; single crates Malaga Grapes, 90c@$1; Quinces, $1.30 per box; Winter Nelis Pears, $2.35@2 60 per box; Pomegranates, 10-lb boxes. 75c. Some fruit arrived in a damaged condition and sold for less than the prices named.

Oct. 25.—Five carloads: Tokay Grapes, full crates, $3.20@3.50; half-crates. 85c@$1.55; Muscat, full crates, $2.90; half-crates, $1.10@1.55; Cornichon, single crates, $1.45@1 55; Peaches, $2.55; Beurre Diel Pears, $2 80@3.10.

At New York.

Oct. 19.—Three carloads; Tokay Grapes, fancy, double crates, $3.95@4.10; single crates, $2.15; double crates Tokay Grapes, $2.85@3 75; single crates Tokay Grapes, $1.25@1 85; single crates Cornichon Grapes, $1.75@2 05; single crates Black Morocco Grapes, $1.80; Winter Nelis Pears, $3.10@3.60 per box; Quinces, $1.85 @2 per box; Coe's Late Red Plums, $2.30 per crate; Ickwith Plums, $1.15 per crate.

Oct 22.—Four carloads: Double crates Tokay Grapes, fancy, $4.35@4.65; single crates Tokay Grapes, fancy, $2.25@2.35; double crates Tokay Grapes, $3.40@ 3 85; single crates Tokay Grapes, $1.85@2; Cornichon Grapes, single crates, $2.35; Winter Nelis Pears, $3.55.

Oct. 25.—Three carloads: Tokay Grapes, fancy, double crates, $4.75@5.20; single crates, $2.25@2.75; Cornichon Grapes, fancy, double crates, $4.55; single crates, $2.65; double crates Tokay Grapes, $3.75@4.15; single crates Tokay Grapes, $1.55@1.90; double crates Cornichon Grapes, $3.40@3.50; single crates Cornichon Grapes, $1.75@1.85; single crates Emperor Grapes, $1.45.

Oct. 25.—Two carloads: Pears, $2 25@3.75; Bilyeri Peaches, $1.90@2 20; Clings, $1.75; Quinces, $1.70@2.60; Tokay Grapes, half-crates, $1.05@2.10; Muscat, 80c@ $1 50; Emperor, $1.40@1.65; Ferrara, $1.25@1.50; Cornichon, $1.40@1.75.

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WANTED.

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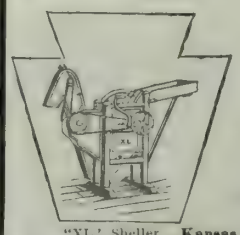

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No. 406 CALIFORNIA STREET, SAN FRANCISCO, CAL.

State Game and Fish Laws.

In Effect May 17th, 1891, and Until Further Notice.

The Acts relative to game and fish, as amended by the last Legislature, are as follows:

Every person who, in the State of California, between the first day of March and the first day of October of each year, hunts, pursues, takes, kills, or destroys any quail, partridge, or grouse, or any kind of wild duck or rail, is guilty of a misdemeanor.

Every person who, in any of the counties of the State of California, at any time, takes, gathers or destroys the eggs of any quail, partridge, or grouse, or mallard duck, or any kind of summer duck, red head, teal, or any gray duck, or any other kind of wild duck, is guilty of a misdemeanor.

Every person who, in the State of California, between the first day of January and the first day of July in each year, hunts, pursues, takes, kills, or destroys doves, is guilty of a misdemeanor.

Every person who, in any of the counties of the State of California, hunts, pursues, takes, kills, or destroys any male deer, antelope, mountain sheep, or buck, for the period of two years from the date of the passage of this Act, is guilty of a misdemeanor.

Every person in the State of California who has in his possession any green hides or any green skins of any deer, elk, antelope, or mountain sheep, killed after the passage of this Act, and before the expiration of two years from the passage of this Act, is guilty of a misdemeanor.

Every person in the State of California who, at any time, hunts, pursues, kills, takes, or destroys any female deer, antelope, elk, mountain sheep, or doe, shall be guilty of a misdemeanor.

Every person who shall at any time hunt, pursue, take, kill, or destroy any spotted fawn, is guilty of a misdemeanor.

Every person who shall take, kill, or destroy any of the animals or birds mentioned in this section, at any time, unless the carcass of such animal or bird is used or preserved by the person taking or slaying it, or is sold for food, is guilty of a misdemeanor.

Every person who shall buy, sell, offer, or expose for sale, transport, or carry, or have in his possession, any deer or deer-skin, or any hide or pelt from which the evidence of sex has been removed, or any of the aforesaid game, at a time when it is unlawful to kill the same, as provided by this and subsequent sections, is guilty of a misdemeanor.

Every person who takes, catches or kills, or exposes for sale, or has in his possession, any speckled trout, brook or salmon trout, or any variety of trout, between the first day of November and the first day of April in the following year, except salmon trout taken with rod and line in tide water, is guilty of a misdemeanor.

Fishing for salmon, shad, etc., between six o'clock Saturday evening and sundown of succeeding Sunday prohibited.

Fishing by explosives, or by pound, weir, cage, trap or set net, prohibited.

Hollister Fair.

The San Benito Agricultural Association recently held a fair at Hollister, the county-seat of that county. It was in many respects one of the most attractive and meritorious of the fairs held in this State this year. The exhibition of horses and cattle, including livestock of all kinds, was quite extensive, and the display of vegetables, fruit and products in the pavilion was the best in quality that our reporter has seen this year. Bonnie Brae Farm, owned by Messrs. Cunningham, Curtiss & Welch of this city, of which Mr. J. L. Scholefield is the efficient manager, made an exhibit of squashes, beets, pears and apples that it would be hard to duplicate in any portion of this State. The exuberant growth may be shown when 90 pears filed a box. Squashes taking in 20 or more made an average weight of 160 pounds, some weighing as high as 173 pounds. Mr. Donovan made an exhibit of apples that would make a rival at the World's Fair of anything on the American continent.

Mr. Isaac Thexton of Paicines exhibited common beets that weighed 75 pounds each. This beautiful, picturesque and fertile section is the head of the great Santa Clara valley and is divided up into small farms as compared with other portions of the State, and there is an evident prosperity and thrift in and around this section of country that is seldom found in any portion of the Pacific coast.

We noticed that one of the large ranches known as the "Riverside" had recently been surveyed and placed in the hands of Mr. Thomas McMahon for fruit orchards. On the last day of the fair one or two of these tracts were sold to parties who were making this section their homes. Our reporter was much pleased with the surroundings of this section, and intends to make a more extended description of this attractive portion of California within the next two months.

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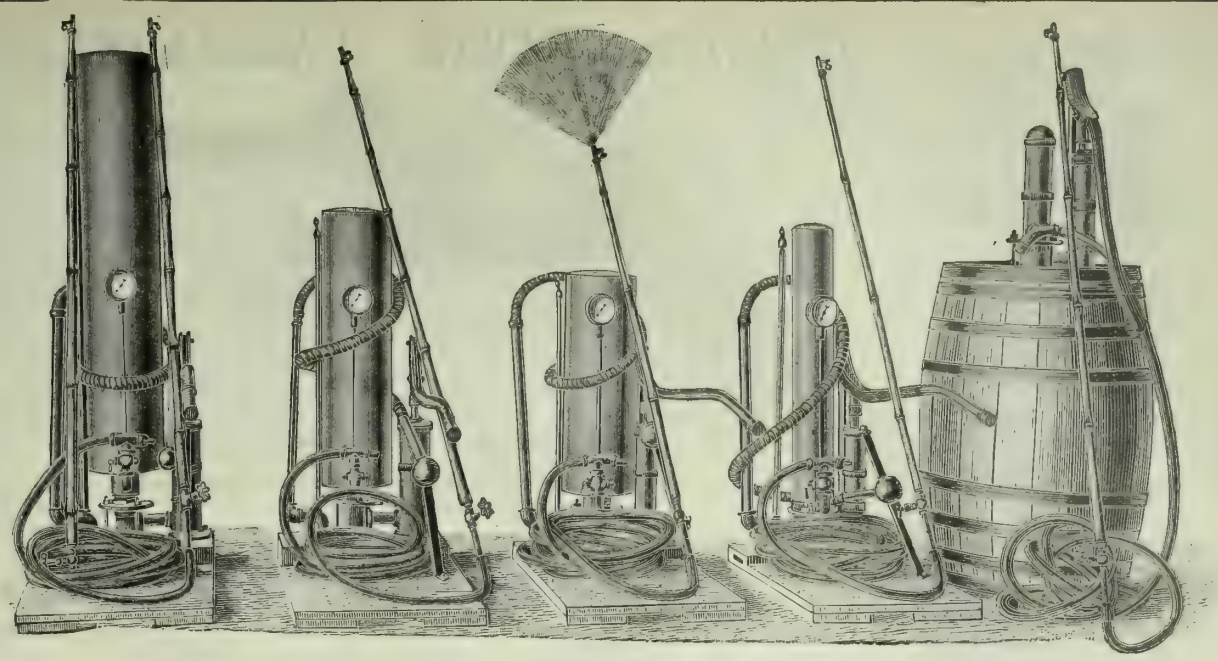
STEEL knives which are not in general use may be kept from rusting if dipped in a strong solution of soda (one part soda to four of water), then wiped dry, rolled in flannel and put in a dry place.



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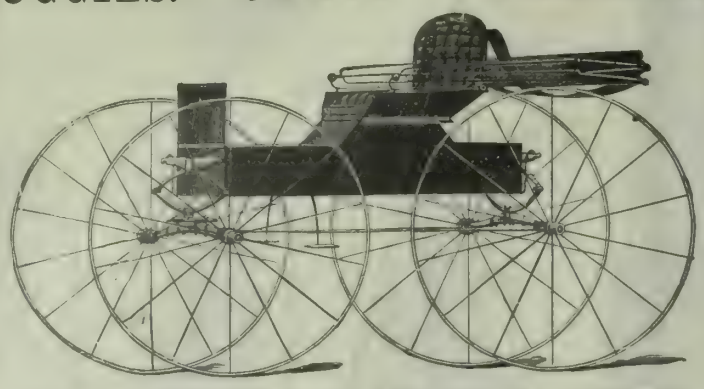

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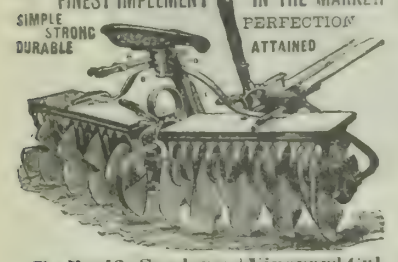

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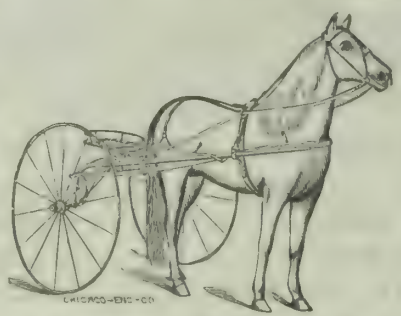

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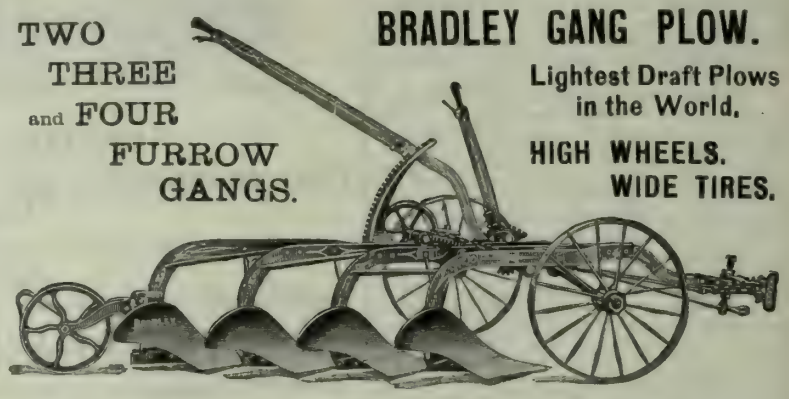

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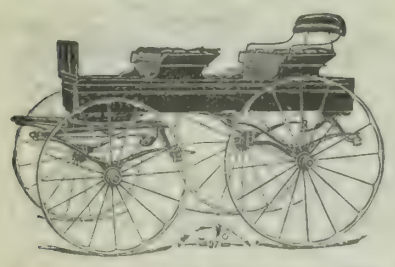

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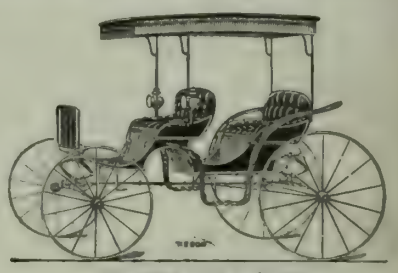

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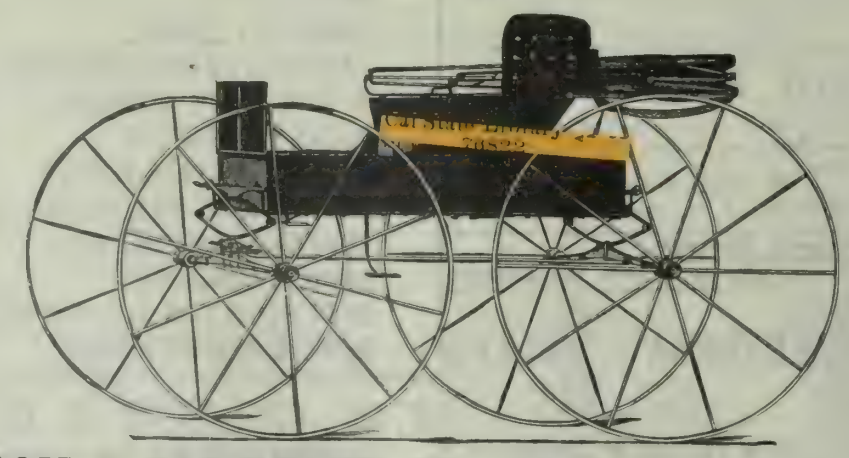

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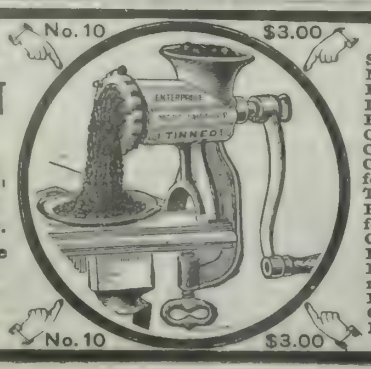

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Is the BEST in the Market for all alluvial soils and is also the Cheapest.

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We make Iron Frame Gangs, Single Plows, Superior Channel Iron and Wood Frame Harrows, Disc Harrows, Warehouse Trucks, Wheelbarrows, etc., etc.

Our various shops are well equipped and we do all kinds of jobbing in Planing and Woodworking, Blacksmithing, Foundry and Machine Work.

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370 MAIN STREET, STOCKTON.

PACIFIC RURAL PRESS

Vol. XLIV. No. 19. SAN FRANCISCO, SATURDAY, NOVEMBER 5, 1892. THE DEWEY PUBLISHING CO Office, 220 Market St.

The Late Mrs. Harrison.

The portrait of the late Mrs. Harrison given on this page is a reproduction of a photograph taken in this city during her visit with the President in April of last year. There was nothing in Mrs. Harrison's appearance at that time to indicate failing vital strength, and no one whose privilege it was to meet her during that visit would have imagined that consumption would ever have claimed her as a victim.

Mrs. Harrison was a native of Ohio, the daughter of Prof. Scott, who was teacher of chemistry of Miami University at Oxford, Ohio, from which Mr. Harrison graduated in 1852 at the age of 18. Young Harrison's college career was exceedingly successful, for he captured not only a diploma, but the heart of the professor's daughter, whom he married just before he attained his majority. Of Mrs. Harrison's career the very best that can be said is that its only memorials are left in her own home. She faithfully fulfilled all the duties of wife and mother, and in the exceptional social eminence to which she was called by the accident of her husband's political life, she bore a dignified womanly part. Such women as Mrs. Harrison are found in every community, and they are always the very best element in it. They combine, as she combined, intelligence, character and good works, and have less regard for the frivolities of society than for the more wholesome interests of life. They form, in fact, the very best development of American civilization.

THE LATE MRS. HARRISON.

SHEEP ON FARMS.—We have often alluded to the fact that ere long we should be growing many sheep on farms instead of ranging sheep, as was formerly practiced in this State. The idea has taken possession of many people, and the inquiry for improved mutton breeds of sheep for the production of early lambs for market shows that we are making some progress in a very desirable direction. There have been several importations of late, but one just made by E. J. Baldwin, of Los Angeles county, seems to create considerable interest, as indicating what a shrewd business man thinks of the outlook. Mr. Baldwin returned to California from the East last week with his racehorses, and brought back with him from the East six ewes and two rams of the Shropshire breed of sheep. He says the sheepmen of California have always bred for wool, making mutton an entirely secondary consideration; that all sheep-ranges in the foothills will soon be taken up for orchards and vineyards, so that the day is not far ahead when men will have to breed mutton for the market, feeding the animals in corrals on alfalfa-hay and Egyptian corn. Every farm will then have from 60 to 100 sheep, as in Indiana and Ohio to-day. The bucks brought back by Mr. Baldwin weigh 228 and 196 pounds, respectively, and the ewes are proportionately heavy.

A FRUIT DRIER CONTEST.—In the Circuit Court of Appeals last week the case of John W. Cassidy *vs.* Hunt Brothers, for infringement of a patent on a fruit-drying apparatus, was decided in favor of the defendants, the judgment of the lower court being reversed. The reason assigned was that the evidence in the former trial was of such a nature as not to give the jury the means of arriving at any more than nominal damages. The lower Court gave $1350 damages.

STOCK CATALOGUES AT FAIRS.—Our State Fair correspondent this year alluded very forcibly to a matter to which we notice the *Breeders' Gazette* calls general attention. It is the importance of requiring exhibitors of stock at fairs to make their entries and furnish particulars early enough to permit the society to issue a catalogue that will furnish the necessary information to a visitor who comes to make a study of the stock. When shown in the ring, the stock should be numbered to correspond with catalogue numbers. All competing stock should be located in neighboring stalls. This system has been approved and its advantages recognized where it has been tried. Some effort should certainly be made to bring order out of the confusion now prevailing.

THE BEET-SUGAR OUTPUT AT CHINO.—In our issue of Oct. 22d we gave an account of the main part of the season's run at the Chino sugarie. The season actually closed Oct. 29th, having been in operation since July 1st. Nearly 28,000 tons of beets were worked up, for which the factory paid the farmers $112,000. The total output of crude sugar was 7,903,541 pounds, on which the Government gives a bounty of nearly $150,000. Over 500 hands were employed in the factory and beet fields, and $150,000 was paid out in wages. The beets have shown a remarkably high per cent of sugar, some lots running 22 per cent and bringing $6 a ton. Chino has 223 voters registered, while two years ago she polled 44.

The Fruit-Growers' Convention.

Our readers should arrange to attend the Fruit-Growers' Convention, to which reference has been previously made in the RURAL. The sessions will be held in Turn Verein Hall, San Jose, Nov. 15th to 18th inclusive. They will open each morning at 9:30, adjourn from 12 to 1:30, and open the evening session at 7:30.

On the opening day, in addition to introductory business including an address from President Ellwood Cooper, the important subjects of Co-operation among Fruit Growers, The Establishment of a Fruit Exchange, Auction Sales, Distribution and Management of Sales in Eastern Markets, Transportation Facilities and Rates, and Varieties of Fruit Demanded in Market, will be fully discussed.

On Wednesday the leading subjects will relate to practical culture, selection, grading and care of fruit; thinning, gathering, processing, etc.

On Thursday, Pests and Diseases, Remedies, Formulas and Time for Applying, also Quarantine against Foreign Pests and Diseases, will be leading themes, followed by discussions on Roads and Highways; Pruning; Cultivation; Fertilizing and Irrigation. On Thursday evening, Forestry and Flower Culture will be discussed, and the advantage of issuing an abridgement of horticultural literature of California from 1885 to 1891 inclusive will be considered.

On Friday, Legislation Necessary to Develop Horticulture, The Prevention of Fruit Depredations, The Columbian World's Fair Exposition, will occupy the leading hours; afterward there will be reports of committees and closing business.

The general plan is to allow fifteen minutes for reading of each essay. Such papers must be handed to the executive committee for revision or amendment before presentation. The discussion of important subjects will be favored, and as much time as possible devoted thereto.

PRIVATE CARS.—Anticipating the discussion at the Fruitgrowers' Convention of the question of using private cars for fruit transportation, the following statement, from the *Breeders' Gazette* of Oct. 19th, becomes pertinent: By the use of private refrigerator cars, the dressed-beef monopoly extended the industry so as to control producer and local butcher. It was a long time before the public learned what rebates were given to shippers using their own cars. The Chicago, Milwaukee & St. Paul R. R. began last fall to refuse shipments at current rates in private cars, as it owned nearly enough improved cars for its traffic. Several other roads have given private car companies to understand that it was best to discontinue. It was formerly a custom to rebate one cent per mile both ways, and thus private companies could contract with shippers, and divert traffic by allowing their customers a part of the rebate. The *Gazette* thinks it will take longer to displace refrigerator cars, but that it is only a question of time when private cars will be abolished on all American roads.

SEMITROPICALS.—It is announced from southern California that the prospects for a large orange crop of good quality are growing better. The lemon crop will be rather short, and the olive crop will not be very large. The olive yield seems to be very small this year in all regions we have thus far heard from.

PACIFIC RURAL PRESS.

By The Dewey Publishing Co.

Office, 220 Market St.; Elevator, 12 Front St., San Francisco., Cal.

Annual Subscription Rate Three Dollars a year. While this notice appears, all subscribers paying $3 in advance will receive 15 months' (one year and 13 weeks) credit. For $2 in advance, 10 months. For $1 in advance, five months. Trial subscriptions for three months, paid in advance, each 60 cents.

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	1 Week.	1 Month.	3 Months.	1 Year.
Per Line (agate)	$ .25	$ .50	$ 1.20	$ 4.00
Half inch (1 square	1.00	2.50	6.50	22.00
One inch	1.50	5.00	13.00	42.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type, or in particular parts the paper, at special rates. Four insertions are rated in a month.

Registered at S. F. Post Office as second-class mail matter.

Any subscriber sending an inquiry on any subject to the Rural Press, with a postage stamp, will receive a reply, either through the columns of the paper or by personal letter. The answer will be given as promptly as practicable.

Our latest forms go to press Wednesday evening.

ALFRED HOLMAN.....General Manager

San Francisco, November 5, 1892.

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BUSINESS ANNOUNCEMENTS.

[NEW THIS ISSUE.]

See Advertising Columns.

Peach Pits Wanted—Box 91, Templeton, Cal.
Shire Stallion for Sale—J. I. Parsons, Santa Rosa.
Harrows—Deere Implement Co.
Spray Pumps—Baker & Hamilton.
Wagons and Harrows—Allison & Neff.
Sale of Thoroughbreds—L. U. Shippee, Oakland Trotting Park.
Shire Horses—Parsons & Griffith, Geyserville, Cal.

The Week.

The glorious chrysanthemums are serving as a very grateful counter-attraction during the last week of a very noisy, confused and disagreeable political campaign in this city. The general campaign has been quiet and dignified, and the issues not of an inflammatory nature; but San Francisco has wrought up so much local excitement that the interests of national politics are but little thought of. Just as this local turmoil is in its last throes, the State Floral Society throws open the doors of the great pavilion of the Mechanics' Institute and invites the people to behold that peace and quiet and loveliness have not wholly gone from us.

It seems to be the general conclusion of those who have traveled that the two great flower shows of 1892 in this city are in some respects beyond even the greatest displays of the older centers of population. We have not here the almost priceless collections of Eastern and European millionaire plant-lovers, nor have we commercial establishments or Government establishments like distant States and countries.

The points in which excellence is conceded to us by those who have seen all countries and their flower and plant exhibitions are those secured through the unceasing benefits conferred by our inestimable horticultural ally, the California climate. The magnificence of our roses, our chrysanthemums, and the hosts of other plants which require no gold but California sunshine, and no care save that which the appreciative tyro can speedily acquire, is an item of our resources which cannot be taken from us and which distant regions cannot purchase.

The chrysanthemums in the Mechanics' pavilion this week are probably superior to any ever shown under Caucasian auspices; whether the Asiatic devotees of the flower in their own lands do better we do not know. The immensity of the bloom probably first strikes the beholder. We would not like to say there are blooms a foot in diameter nor would be willing to accept much smaller measurement. The indescribable variety of form, of color, of texture—these are but fitting companions for the astonishing dimensions; and these are attained to wonderful perfection in the open air and by acres in extent. Our fruits bespeak our climate, our wildflowers declare every degree of sun and shade and every quality of soil, but there are other people to whom cultivated bloom appeals unresistingly, and to these the achievements of California gardening are the greatest of California's blessings.

The Great Sunset Irrigation District.

Between the San Joaquin river and the Coast Range is a great body of land nearly level, but gently sloping to the northeast, that produces immense crops in the few years of excessive moisture, but is very uncertain as a rule. Streams coming from the Coast Range are a poor dependence for irrigation, and as the Lord "tempers the wind to the shorn lamb," so he has provided a natural elevation or "backbone" some eighteen feet higher than the level of the valley, and crossing it in a line running nearly west from Fresno.

Enterprising promoters have secured a thorough investigation and survey by Herman Schussler, C. E. of the Spring Valley Water Works, one of the most eminent hydraulic engineers in America, who pronounces unreservedly in its favor. They have also organized under the Wright law a district now comprising over three hundred thousand acres, have issued bonds amounting to two millions of dollars, have had the validity of their acts settled by a decree of court, and have found a firm of London bankers who will take the whole amount at 90 per cent of their face value as soon as the contracts are let to responsible parties.

They have purchased from owners of water privileges three thousand cubic feet per second of the waters of King's river, which they propose to carry along this backbone to a reservoir on the west side and distribute to consumers by three main canals.

The inducting canal will carry three thousand cubic feet per second, or one hundred and fifty thousand miners' inches, along this "back-bone" to the reservoir covering three square miles near the center of the valley. From this reservoir there is one gravity canal which is to supply two hundred thousand acres of the valley, and also one canal running to the higher land on the north side and another on the south that are to supply sixty thousand acres and forty-eight thousand acres respectively by a pumping plant. One of these raises the water twenty feet and the other forty. It is estimated that water can be supplied by the gravity canal at an annual cost of eighty cents per acre, and by the pumping plants at one dollar and twenty cents per acre.

Three responsible and experienced firms propose to compete for the work when the contract is let, some of whom think it can be completed in about four months.

This land is now valued by the county assessor at one dollar per acre, and by the assessor of the irrigation district at five dollars. If prospect of water increases values in this ratio, we may expect its realization to fulfill the idea of the Fresno dealer who claimed that water added *all* to the value of their land.

There was a lively debate at Selma last Saturday representing the extreme views on both sides that we almost always hear expressed of a new country. From them we gleaned that the soil is composed of lime, magnesia and vegetable matter washed down from the Coast Range.

In boring wells, logs have been struck at all depths up to five hundred feet, showing that the deposit is very thick. Instances were also related where good vegetation grew upon soil that came from the bottom of deep wells, after exposure to the air.

The common *theory* was that it would be almost impossible to saturate soil of such depth, and *experience* has been that it takes less than half the water required by sandy soils for irrigation, and that it produces as high as twenty-four sacks of grain per acre when well cultivated and irrigated.

In many places where wells depend upon surface water they fail altogether, or the waters are of such poor quality as to have created a strong prejudice that accounts for the low values placed on the lands. Artesian water is sometimes impregnated with mineral, and disagreeable at first to some tastes. People soon get used to it and the effect is highly beneficial to most systems.

Supposing that the parties who gave such contradictory accounts of the value of the land are all sincere, it follows that different tracts vary greatly in fertility, and in some places show a phenomenal growth of dense weeds as high as twenty feet, and alfileria so thick that sheep cannot be driven through.

Perhaps crops may be grown to which the winds will be an advantage. For instance, it is reported that raisins are cured and out of the way of the rains long before the grapes are ripe in the more humid climate on the East Side. The wind will certainly be useful in raising water from the deep wells and act as a preventive of malaria. What some consider an insurmountable obstacle to success others may convert into an essential element of progress.

With suitable means and energy and wise adaptation of enterprises to conditions, it may fairly be hoped that those opinions may be confirmed which rest upon the conviction that the Sunset district covers one of the finest and largest tracts of irrigable land in California.

From an Independent Standpoint.

The Presidential campaign, now in its closing days, has been the dullest since the reign of party politics in the United States. Many causes have combined to this end but, beyond question, chief among these causes is the growing independence of individual voters. Neither of the leading parties commands that absolute and enthusiastic devotion from its members which characterized the politics of former years. The passion is going out of politics as the issues of the war become memories and leave for the consideration of voters only questions of economic policy. There is nothing in the tariff question or in any of the other alleged issues of the present campaign to arouse sentimental interest or devotion, and the public has naturally declined to "enthuse" concerning them.

Furthermore, the public mind is thoroughly infected with distrust of the parties as they now stand before the public, and not without reason. One does not need to be a close student of the political situation to see that both the Republican and Democratic parties have been utterly wanting in moral courage in the campaign. Neither has had the nerve to take up the real questions that fill the public mind at this time. The currency question, the differences between employer and employed, the immigration question, the question of public ownership of railroads and telegraphs—these are the real issues of the time, but they have scarcely been mentioned in the campaign because neither party is brave enough to take positive ground or any ground at all concerning them. It would seem, as we look back upon the past few months, that the leaders had come to a truce upon these real and vital issues, and had determined to contest the election on grounds already well-worked and upon which each might with tolerable certainty reckon its positive strength.

That this is not the sort of politics the people of the United States demand at this time is shown by the abandonment of the old parties by great numbers of voters and by their adherence to the new Populist party which, though loaded down with extravagant and impracticable propositions, still commands attention and respect through the courage and energy with which it seeks to take up the new and vital issues of the time. It is impossible for one who looks at public affairs as the Rural does, to join with this new party, because in the ardor of its youth and inexperience, it has espoused projects which would revolutionize the Government; but there is in this new movement, with all its heat and intemperance, the germs of a political party which will one day command approval from the country at large, and through this approval gain control of the Government. It will not probably be the People's party as now organized, but it will be a party founded like the People's party upon living issues, supported like the People's party by men of conviction and courage, and leading, as the People's party proposes, to substantial reforms in the Government.

Nothing can be less certain than the outcome of next Tuesday's election. The margins of Republican strength in the doubtful States of Indiana, New York, Connecticut and New Jersey are so small that no man is justified in saying that they may not be overcome; while the result in States like Nevada, Kansas, Montana, Washington and Oregon, where the Populist movement is strong, is beyond the foreknowledge of any political critic. The Rural hazards a prediction that Mr. Harrison will win, not so much upon definite considerations, as upon the general tendencies of politics as illustrated by results in past years. But whether Mr. Harrison or Mr. Cleveland shall win, will make comparatively little difference to the country, since in the one case there will be the restraining element in the Government of an opposing House of Representatives, and in the other an opposing Senate. It is practically certain, in any event, that we shall have, during the coming four years, as we have had so often in the past, a Government practically divided brtween the two parties, and therefore held down to the routine business of administration, rather than the carrying out of new or radical policies. It is, perhaps, just as well that this is so, for it will give the country time to study the new issues outlined above, and which are bound to press their way to the front within the next four years.

There are many points of resemblance between a State Constitution and a house. Nobody ever yet built a house exactly to suit, and no State ever yet made a Constitution which in all its details perfectly answered the purposes in view at the time of its making. But because a house is not in all its features precisely what he would have it, no wise builder tears it down; rather he adds a wing here, knocks out a partition there, alters the slope of the roof and thus by gradual and easy processes adapt it to his uses. And so with a State Constitution. A wise community recognizing its faults will seek rather to amend them than

to throw the whole instrument over and begin anew. A State Constitution cannot in the nature of things be a ready-made, perfect fit; it must be an evolution developed by time and experience. With all its faults the California Constitution has one conspicuous merit, namely, it provides an easy way for the correction of its own demerits; and affords a good foundation for future constructive efforts. In the coming election the people will be called upon to decide for or against five propositions for its amendment. The first of these suggested amendments (which will appear on the ticket as "Senate Constitutional Amendment No. 10") proposes to extend the Legislative period from 60 to 100 days, or from two months to three and a half months. Just what the motive back of this proposition is we are unable to find out, but we suspect that it originated in the minds of certain boodle members of the Legislature who would like to extend their harvest season. There is absolutely no argument in favor of this proposition as it relates to the public at large. It would add a good many thousands of dollars to the cost of the biennial sessions of the Legislature, and we fail to see that it could result in any benefit to the public. There is no merit in the proposition and we trust that the people will have the good sense to vote it down by an overwhelming majority.

The next proposition (named on the ticket as "Assembly Constitutional Amendment No. 7") proposes to extend the period for which bonds may be issued by cities, counties, etc., in this State from 20 to 40 years. The amendment makes no other change in the provision (Section 18, Article II) which requires the assent of two-thirds of the voters of any city, town, school district, etc., before bonds may be legally issued. The motive for the amendment is found in the necessity of the irrigation districts, organized under the Wright law, to make their bonds cover a longer period than 20 years, which is now the constitutional limit. It has been found practically impossible to float bonds in very large sums within this limit of time, and the proposition to extend it seems a reasonable one under the circumstances. It is indeed an absolute necessity for the irrigationists, in connection with the great district schemes now projected in the southern portion of the State. There is no way to grant the irrigationists what seems to be an entirely proper demand without granting the same privilege to cities, counties, school districts, etc., and we see no reason why the amendment should not command the approving vote of citizens of the State.

The third proposed amendment makes changes in Sections 15 and 19 of Article V of the Constitution, which prescribes the duties of public officers and fixes the rates of their compensation. In brief, this proposition is to add to the duties and also to establish the salary of the Lieutenant-Governor. Under existing law the duties of Lieutenant-Governor are very simple. He is to preside over the deliberations of the Senate during legislative sessions, and is to succeed to the duties of the Governor in case of the death or disability of that officer. The proposition is to make him a sort of Inspector General of asylums, penitentiaries and State institutions, authorized to examine and report concerning them, and to increase his pay from the mere per diem which he now receives during sessions of the Legislature to an annual salary of $4000. If there is any reason for this act other than to create another "sop" to be handed out every four years to some politician, the RURAL fails to see it. There is no need for an Inspector General or an Inquisitor General for State institutions, and if there were, the duty could be much better performed by a committee of the Legislature or by some non-partisan board than by such politicians as usually fill the office of Lieutenant-Governor. Against the proposition to add $4000 a year to the current expenses of the State there is decided and legitimate objection. We trust the proposed amendment will be beaten.

Number 4 of these proposed amendments is one which we are glad to be able to approve. It proposes to amend Section 34 of Article 4 of the Constitution, which provides that no bill for the appropriation of State money shall contain more than one item, by excepting the General Appropriation bill and the General Deficiency bill. This is proper enough. It will save a good deal of legislative red tape and it ought to be adopted. This amendment will be named on the ballot as "Assembly Constitutional Amendment No. 4."

Amendment No. 5 proposes to allow cities containing 3500 inhabitants to make their own charters, whereas now the requirement as to population is 100,000. This merely gives to the smaller cities of the State the same rights with reference to their charters now enjoyed by San Francisco. This amendment ought to carry.

In addition to these three amendments, the voters of the State are invited, at the coming election, to express their opinion on three propositions, namely; (1st), for or against a proposition to elect Senators of the United States by popular vote; (2d) for or against a proposition to require every voter to be able to read and write his name and to read any section of the Constitution in the English language; and (3d) for or against a proposition to authorize the issue of State bonds in the sum of $600,000 for the construction of a Union Railroad depot on the State property at the foot of Market street in San Francisco. Concerning the first and second of these propositions, there will, we imagine, be small contention. Under existing law, the United States Senate is rapidly becoming a "club of millionaires." It is time that it were brought under the discipline of popular election. We do not have to go from our own State to witness pretensions respecting membership to the Senate by men who would not dare to submit their names to the people. Regarding the second proposition, the RURAL is not among those who imagine the illiterate vote to be the most dangerous element in our system of popular suffrage. But it is one of the dangerous elements, and the policy of eliminating it is unquestionably a wise one. For this proposition, as for that calling for the election of Senators by popular vote, there should be, and no doubt will be, practically, unanimous approval on the part of the voters of California.

The third proposition, to authorize an issue of bonds for the construction of a Union Depot at San Francisco on land owned by the State, seems to be the subject of general misunderstanding. The journals which make a business of fighting for or against the Southern Pacific railroad have succeeded in confusing the public mind concerning this proposition; on one hand asserting that the railroad has nothing to do with the proposition, on the other that the bond measure is a bare-faced railroad scheme or robbery. As usual, the truth lies between the extremes, the depot project being in fact a matter in which the Railroad Company and the State have interests in common. The relation as connected with this project is that of landlord and tenant of the property at the foot of Market street. The property belongs to the State and is rented to the Railroad Company for $4750 per month. Now the Southern Pacific wants a better depot, and it asks its landlord, the State, to provide it. If the State will, in its capacity of landlord, make the desired improvement, the railroad, in its capacity of tenant, asserts its willingness to pay a reasonably increased rental.

It is upon this proposition that the bond measure rests. The Harbor Front Commission, which is the State's organ of administration of its water front property, wants to make the improvement, but they have not the money in hand to do it, and they ask the privilege of raising the necessary funds by the issue of bonds bearing four per cent per annum, payable in 20 years from funds arising, *not from general taxation, but from harbor charges of San Francisco.* The Commissioners urge that if they can have the money in a lump sum they can do the work of construction better and cheaper than if they are compelled to carry it along by the method of piece meal. They urge, further, that there will be sound economy in getting the job done promptly, so that the property may bring in its revenues from rentals. Here, in brief, is the purely business aspect of the matter. We believe that a Union Depot would be a good business scheme for the State in its capacity of landlord, and that the Harbor Commissioners are right in their claim that it is better policy to borrow the necessary funds at four per cent than to undertake to build the depot little by little and taking ten years to do it.

But there is another consideration in that the depot project is related to the convenience, comfort and safety of nearly every person who comes to or goes from San Francisco. The present condition at the foot of Market Street is a constant menace to life and limb, not to mention weak nerves or considerations of personal comfort. Whoever lands at the foot of Market Street or departs therefrom, must run a gantlet that is always unpleasant and usually dangerous. It is objected to this depot project that in other cities railroad companies build their own station houses, but this objection loses sight of the essential fact that in no other city has the State the peculiar advantage of owning absolutely the only property available for depot purposes. Under the law of California, the water front property can neither be sold to private parties nor leased for any extended period. It must be rented by the month. Manifestly, under these conditions, the railroad company cannot do for itself what railroads do for themselves elsewhere. There must either be no depot at the foot of Market Street or the State must build one. The business proposition, from the State's point of view, is a good one, and the only objection to it is the danger that the Harbor Commission, which will have the spending of the money and the administration of the property when completed, may be corrupted in the interest of the railroad company. Of course, there is involved in this project, the risk which must always attach to large schemes of public expenditure and administration, but that risk does not prevent us from building State capitols and public institutions in general, and it ought not to stand in the way of a public improvement, demanded alike by the requirements of business. Surely the State ought to handle its property with business prudence equal to that of an ordinary landlord. We have tried to look at this matter in all its lights, and we believe that the best interests of the State and of the public will be promoted by assisting a great project which is really not only in the financial interest of the State, but for the comfort and safety of great numbers of citizens.

In connection with this depot proposition it is an interesting fact that at the San Francisco water-front, if no where else, the State manages to get just returns from the Southern Pacific Company. That company now pays, as stated above, $4750 per month for the ferry-houses at the foot of Market street. For this accommodation and for smaller stations at the foot of Lombard and Second streets it pays a total of $8050 per month, or $96,600 per annum. If the other tolls to which it is subjected at the city-front be added, its total contribution to the revenues of the State through the Harbor Commission is $12,550 per month, or $150,600 per annum. Really it is not surprising that the Southern Pacific Railroad wants for its money some better accommodations than the ramshackle ferry-house now provided; and since it stands ready to pay a reasonably increased rental for improved facilities, we see no reason why the State in its capacity of landlord should not grant its demands, especially since these demands are combined with the necessities of the traveling public. It should be borne in mind that the Harbor Commission, whose members are State officers, has the right to adjust rentals on the city-front in behalf of the State at any time; and that the railroad company will be compelled to pay whatever rates the Commission may impose.

Legislation and Transportation Rates

SAN FRANCISCO, CAL., Oct. 28, 1892.

TO THE EDITOR:—I hope the farmers of this State will not forget that they have the power to elect the majority of the members of the legislature, and should they fail to select the right men, they will be largely to blame. With honest and intelligent law-makers, who do not belong to the railroads or other monopolies, much may be done toward relieving this State from its present comatose business condition.

In looking over the railroad rates on grain from the interior to this city, I find them to average $2.52 per ton per mile, while the rates from the Mississippi river to the Atlantic seaports are only about one-half of a cent, or one-fifth as much as is charged here. The charges here on other freight are much higher yet, and it is no wonder that immigration comes slowly.

The freight on grain from San Jose to this city is $1.75 per ton; and calling it 50 miles, is just 3½ cents per ton per mile, or seven times as much as the eastern charges, although the road is nearly level. This is the highest charge on grain that I know of in this State; but as the people of Santa Clara county are considering the matter of building a monument to ex-Governor Stanford, this may account for it.

Now, railroads are very necessary and of great importance, as connected with the prosperity of the State, and should be encouraged when within their legitimate sphere and scrutinized very clos ly when they leave it and interfere with matters outside of their calling.

It is no doubt very important, considering the extortionate rates that are now charged for transportation, that something should be done as quickly as possible, and the question seems to be as to the plan. Competitive railroads would no doubt be the best method, but they require time and much money. The next is water. We have navigable streams, sloughs and bays that were in use before the days of the railroads, and we have them yet. They were once alive with water craft, and would be yet were it not that they were either bought off or run off by the railroad monopoly.

We have to-day an illustration of what can be done in the way of competition on the San Joaquin to Stockton. Now suppose a couple of good boats were put on the Sacramento river, to run to Sacramento, and a few smaller boats and barges above that point, low rates would follow, and thus low rates could be established all over the State when the produce was within a reasonable distance from navigable streams, and I believe that from 60 to 80 per cent of the heavy products of the State are raised within ten miles of what might be made shipping-points by water at small expense.

Now if roads were opened to such points, the farmers could utilize their teams to much better advantage than now and save more money. Water transportation would thus fix the rate by rail, even if only a portion of the business was done by water, and this is exactly what is wanted now—the rates must be lowered.

This I believe can be done quickly through a corporation composed of merchants, shippers and producers, who would be satisfied with small returns in the way of interest, and who would agree to give the opposition the preference in their freight for a term of years. The capital required would be small and not to exceed one-quarter of what is now paid the monopoly every month, and the result in lowering the rates would be as certain as the law of gravity. R. G. SNEATH.

The Fruitgrowers' Convention.

CAMPBELL, CAL., Oct. 29, 1892.

TO THE EDITOR:—The State Fruitgrowers' Annual Convention will be held in San Jose, Nov. 15-18. The local committee of arrangements is now at work perfecting plans which it is hoped will go far toward making the meeting a grand success. Reduced rates on the railroads have been secured by Secretary Lelong, who will furnish the necessary blanks; the committee has also secured reduced rates at the hotels, and all who attend will find ample accommodations for their comfort.

The local committee hope that the fruitgrowers of the State

will make a good display of their fruits—green, dried or canned. A large exhibition-room, adjoining the convention-hall, has been secured, and it is hoped that it will be filled with the choice fruits of the sections represented at the convention.

All who attend the convention will be accorded a hearty welcome by the citizens of San Jose and the fruitgrowers of Santa Clara county.

R. P. McGLINCY,
Chairman Local Committee.

Annual Meeting of the State Horticultural Society.

At the State Horticultural Society last Friday, besides the routine business, many points important to fruit-growers were discussed.

Howard Overacker, Jr., suggested that the State society take up the work that has been successfully inaugurated by the Alameda society and secure regular crop reports from competing sections. Had they been sent this year by telegraph it would have saved our growers, who sold too early, hundreds of thousands of dollars. [This work will be a part of the duties of the State Board of Horticulture, provided the resolutions of the State Grange, likely to be endorsed by the Fruitgrowers' Convention, receive legislative sanction at Sacramento.—ED.]

A. L. Bancroft asked advice as to treatment of Beurre Clairgeau pears that were being blown off, and was advised by Mr. Block to tie the limbs in a way to prevent a part of the loss and prefer to lose a certain per cent rather than sacrifice one of the very best bearers and market varieties.

Fred C. Miles exhibited two new varieties of peach, a free and a cling, that are very late, very showy, medium size, very sweet, and likely to be valuable for holding in cold storage for holiday market.

R. C. Kells of Yuba City gave valuable suggestions as to curing dried fruit. They take it up when still soft and finish curing in the storehouse by frequent stirring. This gives better quality of fruit and better weight, but those dealers who have been accustomed to buy fruit as dry as chips and add 25 per cent of water seriously object to a system which deprives them of that revenue.

E. W. Maslin of the State Board of Trade reported suggestions from one who claimed to be an almond expert from New York and thought that we were making a mistake in not turning our whole attention in the direction of hard shell almonds.

The united evidence of those who had most experience in almonds went to show that this expert was probably one of those who enjoys a monopoly in estimating the importance of his own views. Some of our paper shells may be injured in transit to consumer, but, as a rule, experience shows that we are on the right track.

Four new members were elected, and officers for next year as follows:

E. W. Hilgard	Honorary President
B. M. Lelong	President
Leonard Coates	Vice-President
A. T. Perkins	Treasurer
E. J. Wickson	Secretary
E. W. Maslin	Director
Fred. C. Miles	Director
H. Overacker, Jr	Director
J. L. Mosher	Director
H. P. Batchelder	Director

The Picholine Olive.

NEVADA CITY, Oct. 23, 1892.

TO THE EDITOR:—In your issue of the 22d inst., I read with much interest an article on this fine variety of olive, under the heading of "An Arraignment of the So-called Picholine Olive," by Mr. W. Alston Hayne of Santa Barbara, in which Mr. Hayne takes Mr. Adolph Flammant of Napa to task for calling "Picholine" the variety propagated by the latter under that name, and for recommending it to the people of California as the best variety of olive to plant; while, on the other hand, he—Mr. Hayne—claims that the Mission fills the bill much better than the Picholine or any other variety of olive.

Now, I know nothing about the Picholine of Mr. Flammant, but I know this, however, that the Picholine is a well-known variety of olive in France, and one of the best varieties, too, for pickling. It is true that it does not go all around under that very name of Picholine, and in that respect Mr. Arthur P. Hayne is right when he says that it is very hard to obtain any precise information on any given variety of olive in France, on account of so many different names for the same variety as used from one Department to another.

The Picholine proper is a variety propagated both for oil and pickling, though I am inclined to believe that it is planted more for pickling than for oil. It has the name, in fact, of being the best olive for pickling, though the oil also is fine and sweet. The Picholine is a variety that grows to large dimensions; the leaves are large and sharp-pointed; the fruit is large, much elongated, of a reddish-black; the tree is very productive; it thrives to all exposures, and resists well very cold weather. In France it is recommended to plant it closer to the sea rather than inland and in a rich and moist soil.

It is known in its home under several names—under the name of Picholine at Beziers, Department of Herault; that of Saurin or Saurine at Nimes, Department of Gard; that of Saurengue at Aix, Department of Bouches-du-Rhone; that of Plant d'Istres at Istres, in the same Department, and last of Oblonga, under which name it is classified by Gouan.

As to the Mission, it has also many good points in its favor, and I believe that these points are well taken in Mr. Hayne's letter. But as a pickling olive, the pit is so large that it is much against it. Its size and beauty, however, make it appear with much advantage in glass jars and bottles, and in that respect might suit the American people's fancy better than any other kind.

I believe myself that there is a great future for the olive in California, and the public in general cannot but gain by having that olive question thoroughly ventilated.

FELIX GILLET.

THE DAIRY.

Scientific Dairying as Practiced in California.

[First Paper.]

Written for the RURAL PRESS.

The time came when the old-fashioned dairyman could hardly get back a new dollar for an old one. Cows had fed off and trampled out the feed so that the pastures produced less and the cows were in poorer condition from year to year. Hence the yield was less and the losses greater.

The railroad brought the great dairy region of the Mississippi Valley nearer to our principal markets in cost of transportation and ease of access than the more remote dairys in our own State. At the very time of the year when we had been accustomed to expect and receive best prices, butter was low in the East and enough came overland to keep butter as low as 15 to 18 cents for best. Swiss dairymen were taking the place of Californians, because their banks helped them to get money at lower rates than others. Their countrymen who had been trained in dairy work at home and accustomed to work for small wages were willing to continue to work on a similar basis here, rather than go among strangers who spoke a different language.

Rather than be driven out of the business one of our dairymen began to study how it was that eastern dairymen could afford to ship butter here at 15 cents and whether there was any way for us to meet such competition. On the labor question prices were at least $10 per month in their favor. On feed the introduction of ensilage had made the product of one acre of corn equal in feeding value for butter from four to eight acres of hay. In methods, their Farm Institutes, Dairy Conventions and Cooperative Creameries had started them so far along the highway of progress in breeding-up, feeding-up, scientific handling and systematic marketing that the Californians must *join the procession or throw up the sponge.* Some of our people have enough of the spirit of "49" to prefer to work in the lead.

Among these is E. W. Steele, of Edna, Cal., who reached the conclusions indicated above and began a thorough and determined struggle for first place by a systematic study of conditions.

Land must be made to produce more. Cows must be fed up and bred up to at least a 300 poundstandard. Losses from disease must be guarded against. Butter must be made at such time of year as it brings the best price. Cost of labor must be reduced by such conveniences as increase its efficiency. Devices must be used to get more of the butter into cash andl ess in the skimmed milk and buttermilk.

TO INCREASE PRODUCT OF LAND.

Natural grasses on the hill-lands were alfileria, burr-clover, wild-oats and bunch-grass. It would be hard to improve on nature's selection for such conditions, but some of the pastures needed the chance for seed to take and cover the bare spots as well as to make sod thicker that a year's rest would give.

The farming lands needed a rotation. Some of them needed introduction of new grasses specially adapted to conditions, such as rye, grass, etc. Any one who has feeders of ensilage to compete with in butter-making must feed ensilage to equal them.

Besides doing this Mr. Steele has entered upon a systematic course of study and experiment to learn what well-balanced milk ration he can produce on his place at least cost. This embraces not only field experiments but chemical analyses at the university.

So far his experience leads him to favor corn ensilage, barley, horsebeans, roots and flax.

When grass is at its best he would use a supplementary feed of hay and hay only. So soon as grass begins to grow woody either from frost or drouth he would begin to feed ensilage and grain, always aiming to get a cow to eat all that she can digest and assimilate of a well-balanced ration. In this matter he would consult both chemist and cow.

It is evident that we have made great errors in feeding an excess of carbohydrates because they were cheaper than albuminoids and would keep the cows alive. This puts too great a strain upon the digestive system in proportion to results. We don't build a fine mill and then run sawdust through because it is cheaper than grain, but we keep that mill busy night and day, turning out the best flour it can produce. In the same way the digestive capacity of the cow should be used to produce the best results of which she is capable.

If we feed the cows with the view of keeping them alive at the least cost they often die and at best we are in about the position of the man who starts to market over a rough road with a team only strong enough to draw his empty wagon.

Team and wagon are there to draw a load and their value to him is in proportion to the load they can move.

In preparing ensilage Mr. Steele approves of the eastern custom of cutting corn just as it begins to glaze and grain when it is in the dough.

He finds it a very good ration for his large Holstein cows to feed 40 lbs. corn ensilage, four lbs. bran, four lbs. middlings, four lbs. corn meal, three lbs. of oil-cake. He feeds the grain with cut-hay. Where he has to haul mill-feed 25 miles and pay a high price for oil-cake this is a very expensive ration and as he can raise two tons per acre of horsebeans he is having them analyzed to learn their food value. He finds barley a good feed for milk and a crop well adapted to his land. He is favorably disposed toward experiments with roots. From these indications we expect to hear of his keeping more than one 300-pound butter cow to every acre of his farm and feeding ensilage, barley, beans, beets and flax. Oil-meal is very expensive where it must come such distances, but flax is not difficult to raise and it remains for experiment to show in what way it can be fed most directly from the field with best results. Mr. Steele sees a thousand times more ahead of him to learn than do those dairymen who are growing every year poorer in practicing the methods of their grandsires and preaching that the old way is the best.

It is an old saying that the feed is half the breed. From some results of Mr. Steele's experience we might almost conclude that the feed makes the breed.

He imported a four-year-old Holstein cow that only produced 8000 pounds of milk per year when his two-year-olds were running as high as 10,800, and he was disgusted with her record and disposed to discard her. By careful feeding she gradually increased her record to 13,000 pounds and *breeds from the advanced standpoint.*

Now right here is the meat in the cocoanut. Feeding and selection are the essential elements of improvement in breeds. Within reasonable limits, as you feed a cow up from the 8000 to the 13,000 pound standard, you increase the capacity of her family, in like ratio. If you destroy her constitution in doing it, of course you fail in the end, although successful in some of the means. Records can only be broken and record-breakers raised by best breeding and best feeding combined.

Probably this will hold just as good in early maturity of beef cattle as in yield of milk stock. Take two equal heifers of the same strain, and keep one thriving and the other rustling until at three years old one weighs 1600 and the other 1200 and you may expect a similar difference in their calves. Thousands of farmers have condemned improved breeds because they would not show the same superiority over common cattle when placed in conditions where they had to travel all day without water and go 20 miles for their feed, as they did when receiving proper care. Improved cattle imply improved farmers, and they will surely degenerate in other hands.

When Mr. Steele reached the conclusion that nothing short of a dairy capable of producing 300 pounds annually to the cow would answer his purpose, he began to study what breed would raise the standard in the least time, and after trying Jerseys, decided upon a butter strain of Holsteins.

He imported largely from the best strains in Holland, and has six cows already entered in the Advanced Registry and 15 more tested, all ready to enter in the next volume. He keeps a record of the weight of every milking, and frequent tests of the quality. So soon as a heifer shows marked excellence, he pays special attention to her breeding. In this way he discovered that he had sold for $60 one of the best bulls he ever had on the place. Before he began testing milk, this bull was condemned and sold because his heifers gave less pounds of milk than others. Now he finds that for his purposes this discarded animal was the best sire that he ever owned. The Babcock test is relied upon to prevent a similar mistake in the future.

THE TEN COMMANDMENTS OF THE MODEL DAIRYMAN.

1. Feed up, breed up and weed out your herd to a 300-pound average standard.
2. Commence the dairy season in September.
3. Feed every day, all the cows will consume without wasting, of a well-balanced ration.
4. Give the cows full advantage of the best pasturage at your command.
5. Let the cows dry up at the beginning of the summer season when the feed does, that they may begin milking in good condition in September.
6. Never let a cow get poor.
7. Manage to keep your cows in milk for about ten months.
8. Raise calves in the barn on a well-balanced ration adapted to age, and have them ready to wean when the grass is at its best in the spring.
9. Feed your cows a heavy grain ration at the time of year when butter is highest, and you can get best pay for your feed.
10. Save all your butter by improved appliances.

Sale of Trotting-Bred Horses.

The sale of horses belonging to John F. Boyd, which took place at the Oakland Trotting Park on the 26th of October, was a good one, everything being favorable to a successful sale. The weather was perfect, the company was good and the horses were good. Twenty-two head sold for $7185, an average of $326½ for each animal.

The highest price was $810, paid for the brown yearling colt Ameer—a superb animal in himself, with good size and symmetry, aside from the combination of fashionable blood in his pedigree, such as that of Geo. Wilkes, Mambrino Patchen, Electioneer and Almont.

All the colts and fillies, chiefly yearlings and two-year-olds, were well grown and of good size and looked like the making of good carriage horses, if ever they should be wanted for use other than the speed-track, so that buyers had two strings to their bow, as the saying is. Every animal was not only well bred, but also gave good promise of future usefulness.

After the sale of the young stock there were sold two imported Cleveland Bay stallions, viz., Royal Studley, 9 years old, sold for $185, and the 7-year-old Napoleon brought only $180.

The first-named, Royal Studley, is undoubtedly one of the best of the breed ever brought to this coast, and is more like the type of Cleveland Bays, as we remember them to have been some 40 to 50 years ago in their native country, than any imported horse of the breed we have seen in this State, with one exception perhaps. These two stallions ought to prove a "bargain" to their respective buyers.

HORTICULTURE.

Ways and Means of Horticultural Advancement.

Address of B. M. LELONG, President-Elect of the State Horticultural Society, Delivered at the October Meeting.

Members of the State Horticultural Society:—You have just witnessed the final act constituting me president of this society. I fully appreciate the confidence and great honor you have conferred upon me, and in accepting this trust I am not unmindful of the duties and responsibilities involved.

Before the opening portals of another year let us, as we exchange our friendly greetings, remember with pleasure the gratifying results of our labor in the year which has closed its record. In our pursuits, however, it cannot justly be said that such records have closed, because from season to season they link together as the fruit follows the blossom, and the attainment of any unusual development gives promise of new opportunity for greater effort and new achievement.

This society is the oldest of its kind in this State, and since its organization others similar in character have been established throughout the State, and from them their members have derived an immense amount of practical knowledge. We perhaps need to be constantly reminded of the importance of increasing our active membership, upon which the perpetuation of our society so largely depends. To accomplish this, it appears to me we should hold meetings at different places during the year and at times when orchards are undergoing treatment, such as pruning, thinning, etc., or during the packing or processing of fruit. This seems to me to be absolutely essential if we expect to make a success in fruit-growing. The members will not only find it profitable to attend these meetings, from the knowledge to be attained, but also as to cheapness in attending them, costing less than coming to the city. These meetings would also encourage others to become members. The cooperation of local societies should be asked, and I have no doubt but that they will be glad to give all the aid possible in making the meetings profitable and enjoyable, should you determine so to do.

By meeting fruitgrowers in their districts their wants and your needs can be discussed, acted upon and referred for action, if necessary, to the State conventions of fruitgrowers held yearly under the auspices of the State Board of Horticulture.

In speaking of the beneficial results from such a plan, Vice-President Murry, of the State Horticultural Society of Missouri, in an address before that society at Popular Bluff, in June, 1890, said:

> Some years ago we adopted the plan of changing from place to place in holding our meetings, in the hope that it would be the means of awakening a general interest in the pursuit of horticulture, and I am happy to say that the result so far has been very gratifying. Wherever we have gone we have had good meetings, new recruits have been added to our little army and we have been encouraged to extend our field of labor, and so to-night we find ourselves gathered from distant parts of the State before this intelligent audience, for an exchange of ideas and facts, gathered from practical experience in our calling. Here we meet many of our old friends and coworkers and form the acquaintance of new ones, and the whole tendency of these meetings is to elevate, refine and strengthen the social ties that will ever bind each trusting heart to heart in friendship.

The State Board of Horticulture will aid us in making these meetings a success, in fact, they will be only too glad to do so, because the functions of the board are to foster any and all things that aid the fruitgrower. The conventions of fruitgrowers held by the State board in different parts of the State have been of great value to all interested in this industry. The subjects discussed and put into effect are of a broad nature and are generally the outcome of well-matured plans. Then, is it not to our interest to develop and mature such plans for their final action?

It appears to me that there is great need of amending article 5 of the by-laws, in relation to committees. The duties of some, as provided in this section, are too broad and therefore inoperative. I would recommend the revision of this section and to amend it by including other committees, as follows: Committees on legislation; seedling fruits; apples and pears; peaches, nectarines and apricots; plums and prunes; walnuts, almonds and other nut trees; olives and olive-oil; cherries and small fruits; figs and dates; native fruits; Russian fruits; raisins, grapes and seedlings; evergreens and forestry; deciduous trees, and pruning; citrus trees, and pruning; irrigation; frost and fruit blossoms; nomenclature; marketing; dried and canned fruits; entomology; botany; ornithology.

This subject of committees is of the utmost importance, and while they should not be curtailed in their powers, their duties should be made as light as possible; their reports, which should be filed at different periods, should be embodied in our records, the value of which can only be conceived as time progresses.

The proceedings of this society have been of great value, and there have been many valuable papers read, and reports of great value have been recorded. However, it appears to me that we should enlarge our usefulness by publishing our proceedings in pamphlet form, or in some horticultural journal. This, of course, has been done to a considerable extent by our enterprising papers, but at times they have been crowded out of their columns and only brief notices have appeared; thus, much valuable matter is lost which ought to be on record. Therefore, what we most need is the recording of all valuable papers and discussions, as also reports of committees. I recommend the consideration of this subject, because these proceedings will continue to be of special interest to every practical horticulturist, and their record must be of easy access for consultation.

I desire here to compliment our worthy secretary, Prof. Wickson, who embodied many of these records in his work on "California Fruits and How to Grow Them," and for which we should feel grateful.

FRUIT PACKING AND MARKETING.

The organization of a Fruit Exchange for the marketing of dried-fruit products is of the greatest importance to the fruit-producers of this State. The establishment of such an exchange would tend to systematize packing and processing of fruit; would regulate its distribution without coming in contact with individual producers and producing sections; would enhance prices and encourage the industry in many respects. Every other profession, trade or calling throughout our country has its associations, and their meetings are most always well-attended and great interest is taken in every subject that affects their calling. Hitherto large consignments of dried fruit have been sent East, shipped without the knowledge of its demand or market, or the likelihood from competition of other similar shipments; the producers thus groping aimlessly in the dark, seemingly forgetting that in union there is strength. Until there is an organization established, future shipments will meet a similar fate. Much, of course, has been accomplished without concerted action, but it could not be expected that it will continue as successfully without an organization, especially with an enormous increase of yield.

Concerning the proper distribution of fruits, President Cooper, of the State Board of Horticulture, in an address last July, before said board, said: "The time has now arrived when we should more seriously consider the propriety of having fruit-inspectors, more control over the railroads and a combined effort to distribute and sell our fruits. There exists a general dissatisfaction with the results made by commission-houses. It is claimed by many that the distributors grow rich while the farmers in many cases, with the greatest economy, barely live."

In an address before the National City Convention, he said: "Regarding our fruit shipments, there is no excuse for those who ship unsound fruit. Four times out of five, shipments of unsound fruit give a loss to the owner. If this were all, it would not so materially concern the great body of shippers, but the markets are injured by the forced sales of unsound and worthless shipments, hence the necessity of inspection at the place of shipment. Again, we pay a fixed rate of freight to the railroad companies for a fixed time in transportation. The railroads should be compelled to insure the time. We have no control over the management and no recourse where losses are sustained by reason of delays."

R. C. Kells, an extensive and experienced grower, in an address before the Sutter County Horticultural Society, last July, said: "I do not believe in exposing the fruit to the sun until it would rattle like a lot of gravel when poured out. My rule is to spread the fruit in the sun in trays for a short time and then remove it in the heat of the day to the sweathouse, where it is bulked on the floor to a depth of from one to three inches. Here it is frequently stirred with scoop-shovels, gradually increasing the depth of the bulk and decreasing the area of the floor-room occupied, until the fruit is in a condition to sack for the market. It is then not dried, but cured. It will not rattle when handled, but is like soft leather. This way of curing does not suit the dealers who are manipulators. These manipulators prefer to receive the fruit in a hard, dry condition, so that by adding large quantities of water they can increase its weight and thus add to their profits. This is a condition which California growers have to meet. They should stand together and insist that their cured fruit be sold to consumers just in the condition in which it leaves the producers' hands. When in St. Louis, last winter, I saw on the fourth floor of a large establishment a pile of 30 tons of Missouri dried peaches. They were poured out in bulk at one end of the room and men were engaged with rakes in stirring the fruit, while other men were turning on the hose. In this way 25 per cent was added to the weight, and this alone was a fair profit to the dealer. Fruitgrowers should insist that this fraud be discontinued."

The raisingrowers have wisely formed an association for their mutual protection, through which they will no doubt receive an enhancement of prices and naturally control the markets for their products. This action on their part is to be commended, as it is the only way through which the problem may be solved.

The fruitgrowers of Santa Clara county have also foreseen this difficulty and have formed a similar organization for their county. As to the benefits derived from such a plan, I refer you to the letters of Col. Philo E. Hersey and Edward F. Adams, published in the San Jose *Mercury*, PACIFIC RURAL PRESS and the *California Fruit Grower*.

This subject has been under our consideration and the committee in charge will bring it to the attention of the fruitgrowers at their convention at San Jose. It is to be hoped that steps will then be taken whereby an organization may be effected. I hope every member of this society will exert himself, in his respective locality, to stimulate his neighbors to energetic action in the establishment of a Dried Fruit Exchange for the entire State.

EDUCATION AND INVESTIGATION.

The labors of the experiment stations maintained in different parts of the State for the advancement of the twin sisters agriculture and horticulture have been of vast benefit to us, and the bulletins issued recording the experiments performed and the results thereof should be in the hands of every fruitgrower to his profit. It is to our interest to watch these carefully and cooperate with the officers in charge to the fullest extent of our ability. Their efforts are in our behalf and it is wisdom on our part to avail ourselves of the scientific services so placed at our disposal.

Ably seconding the experiment station are the labors of the two great universities, of which we are naturally and justifiably proud—the State University and the Leland Stanford, Jr., University. In these are maintained corps of able and thoroughly scientific men whose duty it is, and this duty is their pleasure, to study and experiment in various directions, which shall be of practical value to the material interests of the State. The end and object of all education is to advance mankind, morally and materially. In the older countries where wealth has accumulated, where nature has been conquered and made to yield her fullest favors, education runs largely to giving its votaries the means of the fullest enjoyment in life, and to a great extent is often more brilliant than useful. It turns out well-informed and highly-polished men, but men who would often be incapable of grappling with the problems of active life. We have a new land, a world to be conquered for ourselves, and, while not neglecting the higher branches, so-called, our universities are devoted very largely to the practical, and the men there produced are fully prepared for the battle of life as it is to be fought in our own State. It is largely in furtherance of this plan, as well as to assist the producers of the State at large, that numerous experiments are being continually made and their results published. Each of these universities have, in the charge of thoroughly competent professors, departments in which the subjects of chemistry, entomology and ornithology are studied and taught, and the results of these studies are of incalculable value to our growers. Who can estimate the money value of the knowledge that has been sent forth from them in analyzing and publishing the composition of soils, the growth to which they are adapted, the fertilizers that should be used under certain conditions and for certain crops, the characteristics of various insects and birds and whether such were detrimental or beneficial? In many, very many, cases the great ship of agriculture has found in them a skillful pilot who has safely guided her over the shoals upon which she might otherwise have foundered. As growers we owe great obligations to our practical institutions of learning, or institutions of practical learning, however you may like to put it, and shall do well to cooperate with them in the future as in the past.

IRRIGATION AND FORESTRY.

There is another subject worthy of more consideration than we have heretofore bestowed upon it at our meetings, and that is irrigation. A very large section of our State, and the most prosperous section at that, depends wholly upon irrigation for crops. Fruitgrowers who live in the irrigated region are loud in the praises of their artificial system of watering, while those who do not resort to it speak with pride of the fact that fruit will grow in their section without irrigation. It is a question for consideration, whether even in those localities where fruit will grow without irrigation it would not do even better with it. I do not make this as an assertion, but merely as a suggestion for further discussion if it is worth considering. One thing is certain, however, and that is that to a very large part of our fruitgrowers water is life, and it is a matter of so great importance to us as a body that we should give it a large share of our attention and study out and suggest such measures as will advance the science—for science it is—of irrigation. Legislation may be required for its assistance, public experiments, or public works may be required, and the proper control of the water ways of the State for the greatest good of the public, are all matters worthy of consideration, and the efforts of this association turned to any point in this direction cannot fail of the desired result. Among ourselves it is to be considered the proper application of water as to varieties, seasons and conditions, the amount of water required per acre for different qualities of soil, how often it should be applied and so forth. It is a subject upon which much thought is now being bestowed and, as it is one that is of direct interest to us, one which deserves more than mere passing notice on our part.

Another subject closely allied with irrigation is that of forestry. We have a State Board of Forestry whose duty it is to look after and preserve the timber lands of the State. When it is considered that the denudation of our mountains by fire or the woodman's ax, has a direct and injurious influence upon the flow of the streams upon which we are dependent for our irrigating supply, the importance of the subject to us as horticulturists will be apparent and the necessity for acting in harmony with the board of forestry and aiding in its work need not be urged here. The effect of forests on climate is well recognized and its bearing upon human activity will be seen. The Prussian Forestry Commission has demonstrated by experiment under Professor Muttrich that the temperature of trees is nearly constant at about 54 degrees, and that the temperature and humidity of the air is positively affected by forests. No orchardist will question the truth of this assertion, for it is in the experience of us all that the temperature of a country which has been redeemed from a desert-condition by the planting of orchards and gardens is always modified Woodlands have an effect upon atmosphere in their vicinity similar to that exerted by the ocean, preventing the extremes of heat and cold. It is more especially in the preservation of the winter snowfall for summer use, the saving of those vast natural reservoirs—the forests—that our interests as horticulturists lie, and the subject is one of the greatest importance to us.

THE WORLD'S FAIR AND THE ISTHMUS CANAL.

There is another matter which requires our consideration, and our immediate consideration, too, if it is to be considered at all, and that is the making of a proper exhibition of our horticultural products at Chicago. The time is rapidly approaching when the exposition will open and in our interest we should make the finest display of fruit of all varieties and in all conditions of any State in the union. California has been called the orchard of the union and it devolves upon us to maintain our claim to the title. There are few fruits that grow anywhere in the world that cannot be found in some parts of the State, and our flora is unsurpassed by any equal section in the world. We can if we will make a showing that will astonish not alone the people of the United States but of the whole world. On the importance of such an exhibit I need not dwell. The Chicago exposition will be visited by more people than ever before were brought together on such an occasion, and tens of thousands if not hundreds of thousands of these people are interested in California. From the date of the first discovery of gold here California has been a charmed name the world over and her exhibit will attract more attention on the part of people from all parts of

the world than will any other. Whether that exhibit shall be worthy of our State depends upon our people and whether the horticultural portion shall be worthy of the Golden State, will depend directly upon us. Some action should therefore be taken by our assembly at once looking to cooperation with the World's Fair Commission—the making of a horticultural display that shall not alone be merely creditable, but shall take the first place among all such displays from the whole earth, and it could and should.

While upon this subject I cannot avoid alluding to the Nicaragua canal, in the early completion of which the California fruitgrower has a more direct interest than almost any other class of our citizens. With the vast area already planted to fruit in our State, it will not be long before we shall be compelled to seek a wider market than our own country can afford us. We are already pushing for a foreign market for our wines and for many of our fruit products to a limited extent. We have made the experiment of shipping green fruit to London by rail and sea, and while we shall always be compelled to avail ourselves of rapid transit for our more perishable products, a means of transportation that will enable us to reach the foreign market in reasonable time and at lower cost than now prevails will become absolutely necessary to our existence in a few years. Already our raisin and prunegrowers are confronted with the necessity for a wider market than they now have, and while the home market by judicious management can be very widely extended, unless its demand increases in the next five years at a very much greater ratio than it has in the past five years, we shall be in great danger of facing an overstocked home market and be compelled to compete directly with foreign products in foreign markets. Such being the case it behooves us to assist by every means in our power the construction of this great work which will open to our State a short cut to the European market. Another point to be considered in this connection is that the building of this canal would largely change the present course of the traffic of the world and divert it to our shore. It would make of San Francisco, with her phenominal harbor, one of the greatest seaports on earth. San Francisco is already our most important single consumer and whatever tends to her upbuilding promises to increase the demand for our fruit-products. So that the construction of the canal would benefit us in two ways, in increasing the home demand for our green fruits, and affording us speedy and cheap transportation for our cured products.

Touching upon the question of markets, I would call your attention to the experiment which has been made this season of disposing of fruit at auction. While the experiment was not wholly satisfactory, its operation is worthy of consideration by us. If mistakes were made in its operation in the past, we can discover and correct them and probably work out a more equable and just method of disposing of our fruits than now exists. Whether the auction method is worthy of further trial is a question that is at least worth our consideration and discussion.

FERTILIZATION.

In many of our orchards, artificial fertilization has become necessary. This is especially true of our citrus sections. This question is one worthy of our most serious consideration. The study is a deep one and embraces a knowledge of the chemistry of soils and the requirements of crops. We have got to learn in what constituent element our land is lacking, how great that lack is, and the best and most economical means of supplying it. The need is a continually growing one, and it is time that our society gave it the consideration of which it is deserving. Besides the proper use of fertilizers, another matter upon which we should take action in this connection is the securing of proper legislation to prevent the sale of fraudulent fertilizers of unscrupulous dealers. A fraud of this kind is a fraud of the worst kind, for it not only robs the purchaser of the purchase-price of the article, but also robs him of possible crops for years and of all the labor bestowed upon the cultivation of an orchard rendered barren for want of the proper elements which his purchased fertilizers should have supplied. We should work for stringent legislation to prevent such frauds upon us. In many States there are now existing statutes to protect the farmer and fruitgrower in this respect, and in self-interest, and I might say, self-preservation, we must work for such legislation in our own State.

TAXATION OF FRUIT TREES.

Another matter of great importance to which I call your attention, and which is becoming an obstacle in fruit growing in California, is the taxation of trees. Heretofore trees have been taxed as improvements. Bare land is taxed at its real value, and its value is not enhanced materially as long as it remains unplanted. As soon as it is set out to fruits, its value necessarily increases, and thus aids in the enhancement of the county's wealth. Under the existing conditions, the trees planted on said land become taxable property. They are taxed in addition to the value of the land. They are taxed before they give any return to the owner. In other words, it is taxing unproductive orchards.

This State could better afford to pay a bonus to people setting out young orchards than to force the collection of this unjust tax. To impress the point on the minds of the members more fully, I herewith append a schedule of valuation which has been fixed:

FRUIT TREES.

	Per acre.
First year	$ 15
Second year	20
Third year	30
Fourth year	40
Fifth year	50

CITRUS TREES.

First year	50
Second year	75
Third year	100
Fourth year	125
Fifth year	150
Sixth year	200
Seventh year	225
Eighth year	250
Ninth year	275
Tenth year	300
Eleventh year	325
Twelfth year	350
Thirteenth year	375
Fourteenth year	400

VINES.

First year	15
Second year	20
Third year	35
Fourth year	40
Fifth year	50

Horticulture is a business that should receive every encouragement, instead of its progress being blocked by such an unjust tax. In other countries a bonus for every acre set out to fruit is paid by the Government. Thus the importance of horticulture is apparent, and the bonus offered stimulates new plantings. It is conceded that horticulture aids in the development of the State and enhances its wealth; then why not encourage the industry that makes it so?

LEGISLATION, ETC.

The subject of insect pests and fungoid diseases and their remedies is another matter of vital importance to the fruitgrower. In this connection, I would call your attention to the fact, and it is a matter upon which we can congratulate ourselves, that reports received from all portions of the State indicate the decrease of orchard pests, especially the pernicious scale, which, in many orchards once badly affected, has almost wholly disappeared. What the cause of this disappearance is, I am not prepared to state, but incline to the belief that it is due to parasites, in which we have ever found our most effective friends. Here is opened a wide field of study to the horticulturist, and one in which he must be informed if he would succeed. The nature and habits of predatory pests must be known, remedies which will keep them in check or destroy them must be discovered, and if there are parasites which prey upon them, these must be found and protected in their good work. Legislation for the prevention of the introduction and spread of orchard pests and diseases must be procured and enforced, and to this end we have got to work together.

There is another matter which, while it may appear to some a little foreign to our object, is nevertheless connected with it, and that is the subject of hydraulic mining For years the hydraulic mines of the State have been closed down, working a great hardship to the miners, and thereby to the whole State, and to us as citizens of the State. It would be well for our association to meet the hydraulic miners half-way, and if some means can be devised by which their industry can be prosecuted with ample protection to ours, we should work together to that end.

Governor Markham, in his inaugural address, touched upon this subject and suggested that Congress be memorialized to take action thereon. The subject is one proper for governmental action. The gold of our mines is needed by the country at large, but to get it, the rights of individuals must be protected. Our industry cannot be sacrificed to it. It is contended that the debris can be impounded by the building of restraining dams, etc. Let us hope so, but it behooves us to see that whatever method is pursued, it will amply protect our industry, and surely with the ingenuity of the American people, some method can be devised by which our mines can be worked and our orchards remain uninjured. When this can be done, the miner will find no firmer friend than the fruitgrower, and to this great end we should work together.

The Bible says that as steel sharpeneth steel, so man sharpeneth the countenance of his friend, and that is the object and the result of our meetings. The California horticulturists have the reputation of being the most intelligent and best-informed body of men in the Union. They certainly are of this State, and the reason is found in the fact that they meet together to interchange ideas, put their ideas into practice and improve upon them and discover new ideas for the next meeting. By this means we acquire the aggregate wisdom of the whole society. As knowledge is power, and power is wealth, it follows naturally that we are at once the most intelligent, most influential and wealthiest body of citizens. I have no desire to convert this into a mutual admiration society, but the facts bear out my assertion, and the wonderful growth of the orchard industry in the past decade supplies the facts.

There are none of the subjects upon which I have touched—and I must confess they are numerous—upon which every successful orchardist has not some knowledge, and many of them a thorough knowledge, and it is largely due to our association and our meetings that we possess it. It is therefore incumbent upon us to maintain our society and add to its strength and membership, for there is much more to be attained in the future than has been accomplished in the past, and in union alone can we hope to accomplish it.

The Unreliability of Nursery Stock.

TO THE EDITOR:—There are many varieties of fruit trees that even an expert cannot designate till they fruit, and the buyer has to purchase in good faith, trusting entirely to the nurseryman that they shall be true to name. In too many cases, besides my own, the grower finds, after several years' labor and waiting, that he has not the kinds ordered and has worthless varieties for marketing, or has them all mixed up with different varieties, so that he has not enough of one kind to pay to send to market, also entailing extra cost and labor hunting through his orchard for like varieties. It has been claimed that the purchaser mixes the varieties when planting; in this case, how is it, on fruiting, he finds most of his trees of varieties never ordered or billed to him. As a sample, the writer ordered one hundred (100) Early Crawford peaches a few years ago. This season they fruited and only 27 trees were true to name, the balance made up of several varieties—some worthless. Also, 75 Kelsey plums were purchased at a big figure; only *three* are true to name, the balance made up principally of blue plums—*worthless.*

In my pear and plum orchards I find the trees all mixed up, instead of each block being of one variety. Among my yellow plums too many, on fruiting, turn out to be blue or purple plums, unmarketable. All that can be done is to root them out, plant others with perhaps like result after years of waiting, or graft and wait several years for the trees to bear, all causing increased expense and loss of time. I could keep on enumerating, "but sufficient for the day is the evil thereof." There is another issue, and that is the reckless manner the roots are spaded off, making it impossible for some trees to grow; also, the practice of falsely representing the root stock.

There are, no doubt, men in the nursery business who desire to do a square honorable business, yet are compelled to trust to the dishonesty or carelessness of employes, while there are others who only care to sell trees. In either case, if proceeding from dishonesty or carelessness, the buyer has to pay for it. Not long since, a reputable nurseryman had to pay damages on a suit, owing to his trees being untrue to name.

The advice to all intending to plant is to take a written guarantee from responsible parties, and not deal with any agent, and be prepared to seek the redress they will too often require, or he will find himself— FRUITLESS.

ARBORICULTURE.

Walnut Grafting.

An essay by FELIX GILLET of Nevada City, read at the October meeting of the State Horticultural Society.

At your request, I will hereby avail myself of the opportunity of laying before the Horticultural Society, for the consideration of its members in particular and the public in general, an outline of my recent observations in regard to walnut-grafting.

Through the planting for over 40 years on the Pacific coast of the most tender and inferior kind of English walnut to be found anywhere, and known here by the name of Los Angeles walnut, and also through the planting of large numbers of black walnuts, for which nuts there is no demand, walnut-grafting has finally become one of the most important questions which the fruitgrowers, not only of California but also of Oregon, can discuss. They have, as an incentive, the immense and ready market before us, the whole of the United States, and it is high time, I believe, that walnut-growing should be made to occupy the place that belongs to it by right among the long list of California's varied products, and which is nearer to the top than any other horticultural product to be named.

On account of the great difficulty in grafting young walnut trees, nurserymen in the New as well as the Old World had entirely given up the propagating of the walnut through grafting or budding till Mr. Treyve, an eminent French horticulturist, found, ten years ago, a new process, but which requires the use of a green or propagating house to graft one-year-old seedlings, with a prospect of succeeding with only 40 to 50 per cent of the grafts, and that is the reason why young grafted walnuts are still to this day so scarce, and found only in nurseries making a specialty of them. But the subject under discussion, as I understand it, is more about the grafting of large walnuts, found to be either unproductive or not hardy enough, or bearing defective nuts, like the Los Angeles walnut or bearing hard-shell nuts like the black walnut. Some people have an idea that the transforming by grafting and budding of a large walnut into another kind is a very difficult operation; such is not the case if we go at it systematically. I have had in this vicinity very large trees, almost two feet in diameter, with limbs in proportion, entirely transformed into some of the productive and hardy French varieties that I had found to do well here in California. But before describing how to proceed in grafting large walnut trees, I will first cite a case among many brought to my attention and bearing directly on the importance of the subject under discussion—grafting the walnut. Mr. Lawrence Russell, who owns a very fine orchard within two miles of Saratoga, in Santa Clara valley, had 374 large walnuts on his place. "The trees," said Mr. Russell in a letter to me dated last March, "were planted about 14 years ago, but they neither bear a crop according to age and size of trees, nor is the fruit of good quality; about one-third of the fruit is rotten, and the other two-thirds is only half filled. Last year and this year I took out 200 of this kind of walnut trees, as they had been planted only 20 feet apart. I have still 174 left, planted 40 feet apart, and it is about these I would like your advice. The trees are fine, large trees, and if anything can be done to improve them, then I am willing to give them another trial; but if not, I will take them out."

I wrote back to Mr. Russell to hold on, and by all means spare the trees; that I would go to his place myself next fall and show him how to redeem the trees, for I considered the case to be a too important one, in view of the fact that hundreds of such cases existed in this State and the adjoining one, Oregon, and that I had been battling right along to have the trees spared and redeemed by grafting, and I was very anxious to show by a fair trial on so many walnuts that it was practicable to transform large, defective walnuts into perfect kinds. So, in the latter part of September, I took a trip to the Santa Clara valley, and found the statements of Mr. Russell to be correct; his were really beautiful and healthy trees, with hardly one-fifth of a crop on, half of the nuts being defective, with a black spot on the side of hull that penetrated to the shell and dried up a good half of the meat. It looked as if these nuts had been scorched by the sun or touched by frost. It did not surprise me, however, having had many opportunities to study the numerous defects of the Los Angeles walnut and its subvarieties. Those defective nuts were certainly not scorched by the sun, for they could be seen in well-shaded parts of the trees as well as on limbs exposed directly to the sun's rays. The trees were branched four feet from the ground. Mr. Russell very sensibly remarked that he greatly wished they had been branched 18 to 24 inches higher up. The lower limbs were spreading out at an angle of 60 to 70 degrees. These limbs I advised Mr. Russell not to graft,

but to let them stand till, through grafting, the trees had put on a new top, but to graft the upper and straighter limbs, which would at the same time bring up the top to a more convenient height.

In leaving Mr. Russell's place, I stopped at Mr. C. P. Howes' model vineyard, in the same valley and five miles from Mountain View, and examined closely every walnut tree there. Mr. Howes has a long row of French walnuts planted on one side of his vineyard, about nine years old and just in bearing. On account of the dry spring in the valley, half of the leaves had already shed, and the nuts could be clearly seen among the denuded branches, but I did not find a single defective nut. All were perfect, and if I had not known before about the defects of the Los Angeles walnut, Mr. Howes' walnuts had been quite a proof that the defect found on the walnuts on Mr. Russell's place was not due to the soil or climate, but solely to the variety.

After having determined to graft over such defective trees as those of Mr. Russell into another kind, there arose another question, and quite an important one: What kind to graft and where to get the grafts from? For if, by grafting, a large walnut tree can be transformed into another kind, still must that kind be a valuable one which will bear fine and perfect nuts and an abundance of them, and, above all, the kind to be a hardy one, or else it would not be worth while to graft the "unimproved" kind into an "improved" one that would turn out to be no better. It is evident that a person cannot be too particular in selecting the kind or kinds to be grafted over the defective one.

I will now describe as clearly as can be done in the short space before me, how to bud and graft walnut trees:

SHIELD-BUDDING.

Common shield-budding, as is used with most all fruit trees, fails entirely with young walnuts; it is more apt to succeed, however, on stock of the year's growth and of the size of the middle or forefinger. The shield of bark to be inserted should be as long as possible, say two inches in length and broad accordingly. In removing the shield of bark from the cion, one should be very careful not to disturb in the least the corculum, or little cork-like, soft matter, not ligneous yet, that connects the bud itself to the liber or wood along which the sap runs up. Should the corculum remain on the cion, leaving a hollow back of the bud, the shield of bark would have to be thrown away as worthless, that is *blind*, and another one must be taken from the cion with the corculum on. With walnut-budding no wood whatever should be left at the base of the bud inserted. An incision is then made lengthwise, (where two eyes are far apart and the wood smooth and round) through the bark of the stock, and a cut at right angles at the top, the whole resembling the letter T; the edges of the bark, at the longitudinal insertion, are then raised half-way around the stock with the spatula of the budding knife, and the shield of bark pushed downward under the bark, being made to spread out as even as can be, so as to leave no hollow under the bud in binding. It will be noticed that below and right under the main bud is another little bud; it was placed there by nature to take the place of the bud proper, whenever anything happens to the latter, destroying its functions. In binding, the bandage might be made to cover that little bud, though it should not be squeezed too hard, but run tight enough above and under the big bud that should by all means stick out of the bandage. To enable the winding of the bandage around the bud, the base of the leaf stalk, always very large with walnuts, has to be previously shaved off with a sharp knife, to permit binding the budding tight under as well as over the bud.

When budding walnut trees in midsummer or early in the fall with the trees in full sap, the bandage should be loosened ten or fifteen days after insertion, and entirely removed two or three weeks after; if the budding was done later on in the fall, then it would not be necessary to loosen the ligature and remove it so soon, though it would be well to watch. The cions furnishing the buds have to be pretty well in sap, and so the stock; with the walnut more particularly, this is a condition *sine qua non* of success.

Another very important point in budding the walnut, whether it be shield or ring-budding, is to take the buds from the very base of the cion, and where the wood is perfectly round and not kind of angular-like, as it is the case with the upper portion of the cion; in fact, hardly more than three to four buds, and sometimes no more than two can be used from any cion, whether one or four feet long, and that is what makes good buds, or buds fit to be used, so scarce.

ANNULAR OR RING BUDDING.

This is the most successful mode of grafting the walnut. Much of what has been said about shield-budding applies with equal force to ring-budding. First, the stock or shoot to be budded must be at least ¾ inch thick. Every portion of the stock or shoot to be budded is not fit to receive the ring of bark; the wood should be not only perfectly round and smooth, leaving on the liber no roughness whatever after the removing of the ring of bark, but the eyes should be also far enough apart. In performing ring-budding, a ring of bark containing a bud, and at least 1½ inches long, should be first taken from the base of the cion, and in the following manner. Two circular incisions are made, one above and the other below the bud, leaving the latter right in the center of the ring, and a longitudinal insertion run betwen the two circular ones back of the bud; then with the spatula or end of the budding knife, the edges of the bark at the longitudinal incision are loosened on each side, about half-way round or ¼ inch from the bud; next, with a little twist of the thumb and forefinger, at the same time pressing gently down on the bark, to prevent the corculum getting out, or even being loosened up, the whole ring of bark is made to come off. Before inserting it, one of corresponding size is taken from the stock, in a long and smooth space between two buds, and in the following manner: The ring of bark from the cion is placed and spread out on the stock, and circular incisions made in the bark of the stock above and below the ring of bark, and a longitudinal incision run between the two circular ones and the ring of bark removed from the stock, and that from the cion inverted in its place. Should the ring of bark from the cion be too small to run clear around the stock, a strip of bark should have to be left on the latter, leaving only a space big enough to admit the insertion of the ring of bark from the cion; if, on the contrary, it would be too wide, a strip should be taken out till it would fit exactly the space covered by the ring of bark just removed. The budding is then well ligatured with a soft strip of old cotton cloth, the bandage being made to wrap around, covering all but the bud, and also above and under the circular incisions. The bandage should be loosened in the course of two weeks, the same as described for shield budding. As the taking off of such a large ring of bark weakens much the stalk so budded, the top should be cut off to two or three feet from the budding or tied up to a pole, to prevent accident. Sometimes the ring of bark from the cion goes only half-way around on the stock; such budding should be more properly called "plate" than "annular" budding; the farther around the ring of bark reaches the better. The ensuing spring the stock is cut off about an inch above the budding, and all shoots growing around the stump taken out except that of the bud proper. The cut should in every case be duly waxed. If the budding fails altogether the stock is cut back below where the budding took place, and one of the new shoots budded in the same manner the ensuing fall.

CLEFT SAP-GRAFTING.

Common cleft-grafting, with the cleft running through the *center* of the stock or limb to be grafted, does not succeed well on the walnut, and then it could not be performed very well on large limbs, six and eight inches in diameter; but cleft "sap grafting" succeeds well enough if done at the right time, or early in the spring, when the sap is commencing to flow up. Through sap grafting, the biggest limbs of a tree can very well be grafted; in fact, such grafting will succeed better on large limbs, say four to eight inches in diameter, than on smaller ones, three inches and under.

First, the stock is sawed off, and the surface of the cut, especially that portion of it nearer the bark, smoothed up; a strong knife or small cleaver or hatchet is then laid upon the *side* of the stock, so as to form the chord of a segment, and, with a mallet, driven down till the stock splits deep enough to permit the inserting of the graft; a small wedge made of iron or hard wood being driven down in the center of the cleft to open it sufficiently to admit the cion. The cion must be prepared with the base cut wedge-shaped, through a double scarf. But here is a very important point in preparing the cion—one scarf only should have the pith of the cion exposed; it does not matter precisely how thick it will leave the back of the inserted portion of the cion. Two buds are allowed to remain on the cion, one at the upper end, the other below it, just back of the scarfs. The top of the cion is cut off a quarter of an inch above the upper bud, slanting, and waxed after having been inserted. A stock three to four inches in diameter will admit two to four grafts, two opposite each other, if there is a scarcity of cions to graft with, or four, two to each cleft, if cions are plenty. Should the stock be much larger, it should be split on three sides, and from three to six cions inserted. In inserting the scion, one has to be very careful to make allowance for the thick bark of the stock, and insert the cion in such a manner that the inner bark of the stock next the wood and that of the cion will be brought together and unite the whole length as much as possible; the wedge being removed, the two parts of the cleft will draw together and hold the cion in place. But to prevent the cleft from reopening through the influence of the atmosphere and sun, the stock is well ligatured with a strong strip of old cotton cloth, doubled up, but not before the whole surface of the cut, including the clefts and tops of cions, have been duly waxed. The clefts are made to run outside of the heart of the tree or limb, right into the sap; hence the name of sap-grafting given to that mode of cleft-grafting.

Through the summer, sticks or stout poles have to be tied up to the stock or limbs, as the case may be, to tie up the successful grafts to them; for their growth, especially on large trees, is so rank that their own weight or the wind is liable to break them clear down to the stock and ruin them; so it is well to be prepared for such an emergency.

Now, should the grafts fail to grow, there would remain a fair chance to resort to annular-budding through the summer or fall of the same year; for a number of shoots would grow around the stock below the grafting, and if three or four only are permitted to remain, they will grow quite large that season, and could very well be budded as described in this paper.

Since to graft large trees into another kind by the ring-budding process requires the cutting back of the limbs at one foot from where they fork out, to allow them to grow new wood upon which to insert the buds, it is just as well, then, to try first in the spring sap-grafting; for, should the grafting fail, it would not put one to much trouble.

By all that precedes, it will be seen that a large walnut-tree can very well be transformed into another kind by combining both operations—cleft sap-grafting and annular budding—the straightest limbs of the tree being cleft-grafted, with the lower limbs allowed to remain for a year or two, as a safety valve for the ascending sap to escape; and if the grafts do not take, three or four of the shoots that are bound to grow up around the stump of the limb grafted, are ring-budded between the middle of July and the first of September.

The trunk of the tree, particularly when the lower limbs are cut off, and up to the grafting, should be shaded in some manner; bands of gunny sacks, wrapped up all around the trunk of the tree, up to the grafted limbs, and made fast with short nails or tacks, will answer the purpose. This will prevent the body of the tree from being sunburnt, and the borers from getting in it.

But there is quite a drawback, for the present at least, in grafting large walnut-trees into hardier, finer and more prolific kinds; it is the scarcity of good buds and good grafts throughout the State, of the improved and hardy kinds of walnut; for it is next to impossible to procure suitable buds for budding purposes on bearing trees of any kind; and as to grafts, they are much more common on large bearing trees than long and large cions, which are required for budding by the annular process. Trees of those improved and hardy kinds are still scarce in California, or so young that it makes it difficult for any one to procure the number of grafts required. To obviate that difficulty in obtaining buds and grafts, I have suggested the following ever since I have been advocating the grafting of large, unproductive and defective walnut-trees into better kinds, and which many people, acting on my suggestions, have done. Two or three years old trees, of the kind to be propagated by grafting, are procured, and set out in very rich and moist ground to stimulate their growth, and cut back two or three inches above the ground, or that much above the grafting, if grafted trees (and as much as possible grafted trees should be preferred to seedlings, for then you know exactly what you have); and three to four shoots for the first year are allowed to grow. If the ground is kept moist, these shoots will grow of the proper size through the summer, and all but one can be used for budding purposes. The ensuing spring, the remaining shoot is cut back in the same manner, and double the number of shoots allowed to grow, and so on as long as buds for budding purposes are needed. In nursery parlance, such trees are what are called "mother" trees. This planting of "mother" trees has the big advantage of enabling any one having several large walnut trees to graft, to grow his own buds and grafts, and not to depend on one or the other for cions held, too, at a high price, and, above all, to be sure to get as many cions as are needed. On account of the scarcity of buds and grafts in starting, it would take several years to graft over a hundred large walnut trees into another kind, unless cions of the kind desired could be obtained in large enough quantities.

The walnut is not the only nut-tree to be redeemed by grafting; for we hear of a very inferior chestnut, going under the name of Italian chestnut, a mere seedling, and as bad in all respects as the Los Angeles walnut, that should be attended to.

Mr. Geo. J. Hooper, of Sonoma, wrote me last winter that he had on his place 300 such seedling chestnuts, planted 15 years ago, that have grown beautiful trees, but bear very small nuts and not many of them; and that he had been advised to graft by ring process, using the French grafted Marron for that purpose. Mr. Hooper added that he had also a number of large walnuts that bear very poorly, and he, too, was inquiring how he could redeem the trees.

Large chestnuts should be grafted in exactly the same manner as large walnuts. Shield-budding and cleft-grafting do, however, succeed better with the chestnut than with the walnut; so it may be regarded as an easier operation to redeem large chestnut-trees than walnut-trees.

In conclusion, I would strongly urge the State Horticultural Society, in the interest of walnut-culture, to do their utmost in encouraging the grafting of large, unproductive, delicate or defective walnut-trees, of which there are so many all over the Pacific coast, or of trees like the black walnut, bearing an unmarketable nut; and discourage the planting of any more such kinds of walnuts as we are called to-day to redeem by grafting. FELIX GILLET.

[In the discussion which followed, Mr. West of Stockton stated that on his place the French varieties are unfortunately affected by the same blighting or disease as the Los Angeles variety. Mr. West said also that he had succeeded in grafting small walnuts in nursery rows by cleft and tongue-grafting underground. All did not take, but, if well done, he had satisfactory percentage of success.—ED.]

ENTOMOLOGICAL.

Our Good Friends in the Insect World.

Lecture given at Niles, Cal., before the Farmers' Institute Oct. 15, 1892, by W. G. JOHNSON, Instructor in Entomology in the Leland Stanford Jr. University.

The relationship and interdependence of all organic beings are so complicated that for us to pronounce any creation an unmitigated evil is the height of presumptive ignorance. It matters not how unnecessary they seem, how useless and insignificant they appear, they all have a significance and make links in the chain of being. This is especially true in the insect world. Very little attention has been given to the subject of the benefits which we directly or indirectly derive from them, while we are reminded on every hand of the personal injuries they do us and the losses they occasion us. Let us look at the other side occasionally and endeavor to single out our good friends and see how they assist us.

In a general way, insects are always busy. From morning till night, and from night till morning, they are flitting from flower to flower seeking nectar, and pay for it by fertilizing and cross-fertilizing our grains and fruits. The insects carry the pollen from the anthers of one plant to the stigmas of another of the same kind, and thus insure vigor to the germ and perfection to the fruit.

Naturalists have discovered within the last quarter of a century so great a measure of mutual dependence between plants and insects that should the entire class of insects be exterminated, the whole face of nature would speedily be changed. Many of our most valuable vegetable products would disappear, and with the disappearance of our grains and succulent fruits, man and the higher animals would probably perish.

Our orchards, our vineyards, our berry-beds, are all the more productive for the swarms of bees, flies, beetles and butterflies that flit about them. The crimson clover fields of the East would be banished from our landscapes with

the extermination of such common insects as the bumble-bee. It would be hard for us to estimate our indebtedness to this class of animals commonly known as insects, but contemptuously spoken of as bugs. We must remember what an important place they occupy as scavengers, reducing decaying animal and vegetable substances to their original elements. Another fact which we should bear in mind is, that they are the chief food supply of many of our birds and fishes.

Let us now examine more closely a few of the insects that are our friends. None, perhaps, has been of more economic importance in this State than the ladybird or ladybug. These little creatures have a peculiar fascination about themselves. We have been taught from childhood to shield and protect them. These predaceous creatures wage constant war, both in the adult and young stage, against plant lice and scale insects. More than a thousand species are known from various parts of the world. There are between 50 and 60 species native to this country, and only about a dozen of these are widely distributed.

The eggs are laid in patches on the stems or on the underside of leaves of plants and usually where plant lice and scale insects are the most numerous. The eggs are very small, oval, and generally pale-yellow or reddish-yellow in color, and are affixed to the stem or leaf in an upright position. The number of eggs varies with the season of the year, and the patches are composed of from 20 to a hundred.

As soon as the eggs hatch, the young begin their work of destruction on the lice and scales about them. The young vary in form, and many are gayly colored. When the young is fully matured, it attaches itself at the extremity of the body to some object, and remains in this state until the ladybird is matured, when it splits open on the back and comes out ready to repeat the history of its ancestors.

The story of the Australian ladybird, *Vedalia*, is an interesting one. It is an admirable illustration of our subject. It is now conceded that California is one of the greatest fruit-producing centers in the world, and every year there are brought into this State from foreign countries thousands of young trees. Several years ago the cottony cushion scale was brought over on a lot of trees from Australia. It multiplied rapidly and soon became so established in the citrus orchards that the fruitgrowers became alarmed. Every possible remedy was tried to exterminate it, and to no avail.

Nearly every variety of ornamental plants and shrubs were attacked. In many instances the cost of fighting the pest was greater than the value of the production of the orchards. Knowing that the citrus trees in Australia were not damaged very much by this pest, it was thought that there must be some natural enemy keeping it in check. Accordingly, two agents were sent to Australia to seek the enemy, and as a result the Australian ladybird (*Vedalia cardinalis*) was introduced, colonized and distributed. The result is well known. The fruitgrowers and farmers are free from cottony cushion scale and will ever look upon little Vedalia with admiration and protect it for the invaluable service it has rendered.

We have many other distinguished friends in this family. Pilate's ladybird is a very pretty little beetle with two bright-red spots on its wing-covers. This little creature feeds on the black scale. It is abundant in the southern part of the State. We have also the eyed ladybird and ashy-gray ladybird, both of which feed on the black scale. Of other Australian ladybirds we have two species of the genus Orcus. They were introduced in January, and both feed upon the red scale and plant lice. Besides these, we have a great many ladybirds that feed upon plant lice. Among these are the two-spotted ladybird, the ambiguous ladybird, and the convergent ladybird.

Another insect which we cannot help but admire is the *Lace-winged fly*. The wings are usually of a beautiful light-green color and present a network of veins. When the insect is at rest the wings are folded over the back, slanting like the roof of a house. The young of this insect is known as the aphis-lion, and is truly another of our friends. The manner in which the female deposits her eggs is very remarkable. When about to lay an egg, she emits from the end of her body a minute drop of a tenacious fluid. This is drawn into a long thread; it dries and hardens at once and the egg is held in midair. The threads are about one-half inch in length. The eggs are often found in clusters on these threads attached to the stems and leaves of plants usually in the midst of a colony of plant lice. When the young aphis-lion hatches, it crawls down the silken thread and wanders around the forest of egg stalks searching for some small insect or egg to feed upon. In doing so, it wanders about not observing the eggs above it. The young are spindle-form, and have long, sickle-shaped jaws. They feed, chiefly, on plant lice, but will eat any other insect such as it can overcome. Even with its own brothers and sisters it is "the survival of the fittest" when two meet. Thus it appears that this is a wise provision of nature to protect the eggs even from the ravages made by its own kind. Otherwise, if 20 eggs were laid on the stem or leaf of a plant, and one should hatch a little in advance of the others, it is likely the little cannibal would make a hearty meal on the remaining 19. The cocoon in which the young stage is passed is spherical in shape, small, rather white and composed of dense layers of silk. When the adult emerges, it cuts a circular lid from one side and escapes.

Closely related to the lace-winged fly is another small insect with yellowish-brown wings, many veins, and folded over the back in the same way. I know of no common name for this insect, and we will recognize it by its scientific name, *Hemerobius*. The young resemble the young of the lace-winged fly, and feed voraciously upon plant lice and other small insects; but, unlike the aphis-lion, after sucking the juices from their victims, they make a cloak for themselves of the empty skins, and appear like a mass of rubbish moving about with no visible means of locomotion. Both the lace-winged fly and hemerobius occur during the summer months in orchards and on other plants where scale insects and plant lice abound.

If you examine a colony of plant lice during the summer months, you would likely find several cylindrical maggots, without heads, the mouth parts consisting of from two to four outwardly-bent hooklets. These are the young of the *Syrphus fly*. It is usually less than one-half inch in length and beautifully banded with yellow. It is a very rapid mover, and can be often seen hovering over flowers. The eggs are deposited in the midst of a colony of plant lice. When the young hatch, they crawl about until they come in contact with the plant lice, which they pierce with their hooklets and suck the juices, devouring as many as a hundred daily. They are also found on trees infested with the black scale. This ungainly-looking creature, though headless, is truly a friend to the farmer and fruit-grower.

The *Ichneumon fly* is another insect that plays an important part in keeping some of our pests in check. It can be easily recognized by the usually long and slender body and the long, exserted ovipositor—an apparatus at the end of the body fitted for boring into very dense substances. It has been observed that a certain species actually bores through solid wood to deposit its eggs in the young of another insect; the ovipositor is worked into the wood like an awl. The eggs are laid by the female either on the outside or within the caterpillar or other insects, on which the young feed. When the eggs hatch, the young live on the fatty portions and fluids of its victim, which gradually dies from exhaustion. When the flies have emerged, there is nothing left of the caterpillar except an empty skin full of small holes. The *ichneumon flies* are thus very serviceable to the agriculturist, as they destroy annually great numbers of caterpillars and other insects. They are also making war on scale insects.

Let us now consider the habits and transformation of an insect common in the vicinity of streams and ponds, commonly known as the *dragon fly*. It has other popular names, such as darning-needles, spindles, snake-doctors and mosquito hawks. The dragon flies, literally, live on the wing; they never walk, and thus the muscles of flight are greatly developed. The eyes are very large, in some cases covering nearly the whole of the head, so that it appears "all eyes." Though gaily colored and brightly decorated, the dragon fly cannot be said to be an attractive insect; but on the other hand, is decidedly repulsive. It does not possess all the bad qualities that are usually ascribed to it. It does a great deal of good in devouring mosquitoes and other noxious flies and insects, as it is continually hawking about after gnats.

The transformation of these creatures has always attracted interest. Prof. Uhler tells us that in laying her eggs, the female alights on water-plants, and pushing the end of her ovipositor below the surface of the water, glues a bunch of eggs to the submerged stem or leaf. Of another species, he says he has seen the female balance herself just above the water and drop a bunch of eggs into the open ditch. The egg-laying habit of still another is the most striking. The female, when impelled to deposit her eggs, deliberately enters the water and walks down some submerged stem, and with her ovipositor cuts gashes in the stalk, into which she deposits her eggs. The young are very active in their habits, constantly going about after food, crawling about the bottom, or making their way through the thickest submerged water-plants. This species has a lower lip greatly enlarged and so formed that it folds over the jaws and completely conceals them. It is a powerful weapon of offense. It is quite long, and is jointed so it can be brought forward in front of the head, and is armed at its extremity with a pair of sharp hooks, adapted for seizing and retaining its prey.

The manner in which the young of the dragon fly breathes is a very remarkable thing. The end of the alimentary canal, the rectum, is so modified that it forms a tracheal gill. It is a little enlarged, and is furnished with many tracheæ. The water is taken in and forced out alternately through the anal opening. The air in the tracheæ is purified by this alternating current of water. Not only does this serve as an organ for respiration, but also for locomotion. By drawing in the water gradually, and expelling it forcibly, the insect is propelled through the water with considerable rapidity. When the young are fully grown, they leave the water to transform. They climb upon some object, split open on the back and emerge, leaving the empty skin clinging to the object upon which transformation took place.

It is not strange that there are so many popular names for these insects. Among children it is believed that they sew up the ears of persons, and thus we attribute the name darning-needle. It is said the negroes of the southern States believe that dragon flies hover over dead snakes, bringing them to life, consequently calling them snake-doctors. In spite of the superstitious and harsh things said about the dragon fly, it is a desired friend of every community.

The snowy tree-cricket is generally believed to be more injurious than beneficial. Such a belief is erroneous. By the presence of these little creatures, many hundreds of plant lice and scale insects are destroyed. It is true, a few stems of the raspberry lose their life by the incisions made by the female when she deposits her eggs. This slight loss is nothing compared with the damage that would have occurred had the plant lice and scale insects been allowed to live, which it had destroyed. Prof. Comstock tells us a very interesting story about this insect. While he was out for a ramble, he stopped to rest under a tree, and hearing a cricket singing, he located it. It was the male. It would stop at intervals, and the female would come up and brush around him with her antennæ. As soon as she would stop, he would begin singing more vigorously. Again the female rubbed him with her antennæ, apparently scratching his back, while he remained placid and quiet. The object of this "scratch my back" is not known; but whatever be its function, the snowy tree-cricket is a friend of ours.

In spite of the fact that the scale insects cause so much destruction, and are the source of so much annoyance, there are certain species which are a source of profit. Many of our dye-stuffs are made from the bodies of scale insects. The females of a bark louse, which is found on a small green oak—a tree which is native of Asia and the countries bordering the Mediterranean—are gathered, dried, and are sold as a dyestuff known as kermes. This dye has been in use ever since the time of Moses, and Pliny states that the inhabitants of Iberia paid to the Romans half their tribute in dyestuff (kermes). We get a dye which gives a color much more brilliant than kermes from an insect known as cochineal. It is a member of this same family of scale insects, and is a native of Mexico, but is now cultivated in India, Spain and other countries. This dyestuff consists also of the female insect, which, when matured, is brushed off and dried. From cochineal is made lake and carmine. Aniline dyes are now taking the place of cochineal.

The stick-lac of commerce, from which shellac is prepared, is a resinous substance excreted by a bark-louse, which lives on the young branches of several tropical trees. The coloring agent known as lac-dye is also prepared from stick-lac.

A bark-louse is found in great numbers upon a large tree growing on Mount Sinai. The young shoots are covered with the females, which puncture them and cause them to discharge a great quantity of a gummy secretion which quickly hardens and drops from the tree, when it is collected by the natives, who regard it as the real manna of the Israelites. China-wax is also made from the excretion of an insect known as Pe-la. We have several species in this country which produce wax in considerable quantities. If these could be cultivated easily, they would be of economic importance. We must, at least, recognize our friends in this family of insects, even though we look with contempt on all the rest.

In many French villages, boards are set up containing the following instructions:

Hedgehog—Lives upon mice, snails and wireworms; animals injurious to agriculture. Don't kill a hedgehog. Toad—Helps agriculture; destroys 20 to 30 insects hourly. Don't kill a toad. Cockchafer and its larvæ—Deadly enemies to farmers; lays 70 to 100 eggs. Kill the cockchafer. Birds—Each department of France loses annually many millions of francs through the injury done by insects. Don't kill the birds.

It would be a good idea if some such system was inaugurated here, but I would supplement it with a list of our beneficial and injurious insects in order that the people at large could become acquainted with the names, at least, of their friends and foes. Whether it be hedgehog, toad, bird or insect, don't kill anything that befriends you.

NOTE.—I have purposely omitted all scientific terms and names, and used those names that are in general use as far as possible.—W. G. J.

THE FIELD.

The Gopher, and How to Get Rid of Him.

Nearly every orchardist in the State has found that among the numerous pests that attack his trees, the gopher is not the easiest to get rid of. And yet, when his habits are understood, it is not much of a task to free the orchard of his raids.

The gopher, or *Geomys thonomys*, as the naturalists familiarly call him, is a reddish-brown or chestnut-colored rodent, measuring about six inches in length. His body readily passes through a hole three inches in diameter when he is full grown. He has a pouch on each side of his jaw just in front of his shoulders, into which he stuffs his food and the loose earth from his runway. His front feet are broad and strong and his forelegs are short and muscular, well-fashioned both to dig or burrow into the earth and to push the earth before him when cleaning out his runway. His tail is short and his eyes are small and well-protected by strong skin and bushy hair, and living as he does in the dark, he is nocturnal in his habits.

The gopher's burrow or runway is usually dug from 10 to 24 inches below the suface of the earth and varies in length according to the abundance of food and the compactness of the soil. Where food is scarce, he will dig a runway 40 or 50 feet long; and where it is abundant, four or five feet are long enough for him. The same is true of the character of the soil, as he digs much longer runways in loose, gravelly earth than in the more compact, clayey soils.

The course of his burrow is marked by mounds of earth that are formed when the loose earth is dumped out. These mounds also serve as doors out of which he passes in search of food. They are always kept closed when the gopher is inside, and this is done by pushing the loose earth from within out into the opening and packing it hard on the inner side.

Each burrow is occupied by a single gopher, and when one is trapped, it is well to tightly close up the opening, as no more gophers will be found in the runway; and if the hole is left open, it tempts the young gopher to enter into possession of a domicile already prepared when he has been turned from the home-nest to make room for the next crop.

Each runway is provided with a chamber from 6 to 12 inches in diameter that is used for a storeroom in which to put food for the season of scarcity and for a long period of wet weather, as Mr. Geomys does not venture out when it storms. This chamber is also used for a sleeping-place, judging from the manner in which it is lined with soft grass and the further fact that it is usually dug under some mound or elevation of the earth which insures dryness to this part of the burrow when it rains.

FEEDING.

Being a rodent, the gopher feeds on grass, on roots and on grains, and these articles are what will be found in his storeroom when it is turned up, which will frequently be done in plowing deeply into land that is infested with these pests.

The little fellow may be seen early in the morning or

toward sundown, when the grass is green, pulling the young growth and packing it into his pouches, to be carried and stored in his storeroom. He is quick and wary in his motions, and at the slightest sound he will dart into his hole, only to come out again with great caution.

It is because of this instinct that leads the gopher to store food for winter use that poisoned food does not always destroy him. If poisoned food is placed in his burrow when his natural food is abundant, he is as likely to add it to his stores as he is to eat it. For this reason, the best time to put out poison is when food is scarce. Or, again, if it is in the fall of the year, when there is no green food, he may be tempted to eat of poisoned ripe fruit or some vegetable that he is fond of or raisins, but poisoned grain is not so tempting, and it is a form of food well suited for his storehouse.

It will be found that as long as there is other food in the orchard, the gopher will not molest the roots of fruit-trees; but when cultivation begins, every form of vegetation is destroyed and it is then that the gopher-mounds will be found approaching the trees. It is claimed that the roots of some fruit-trees, such as bitter almond and peach, are less likely to be eaten by the gopher than the roots of some other trees; but it is safe to conclude that most any edible root is better than no food. Judging from the mounds that are thrown up about oak-trees, it is not unlikely that even these roots are eaten in times of necessity.

BREEDING.

The *Geomys* family believes in increasing and multiplying. A female will bring forth from two to six young in a litter, and the young are large enough to burrow for themselves when three to four weeks old. It is quite likely that during the months of February, March, April and May about one litter is reared each month; and as each litter is forced out to hunt for themselves as soon as the next ones come along, it is during these months that the trapper must be most watchful.

The orchardist will find that the ground he considered free from gophers will be covered with mounds some fine morning and he may wonder where they came from. But he must remember that wherever land is unmolested, there the gopher will be found as thick as it is possible for him to exist. Consequently, when the new crop is forced out, where shall they go for burrows? As it is during the night that the gopher migrates, he soon finds as he passes from one burrow to another that he must either whip the old settlers or move on to some unclaimed piece of soil. The well-protected orchard offers then just the place for the youngster to pitch his tents, and he loses no time in getting below the surface and throwing up his signal of occupation.

Sometimes, however, the trapper will find instead of a small hole, denoting the presence of a youngster, that it is a hole dug by a mature gopher. When he is trapped, his sex is usually male, and he probably has been so set upon by some stronger brother that the neighborhood of his late dwelling has become too unpleasant for him to longer remain, and he has sought the quiet of the orchard lot.

The mature female gopher does not often migrate, but, like the hive of bees, she sends forth four or five crops of youngsters each year from some secure burrow outside of the orchard lot.

A favorite breeding-ground is under a roadbed. The hard, well-packed surface of the road turns the water from the burrows, and as the road is usually higher in the center than it is on either side, the nest is out of danger of being flooded by a sharp rain.

Wherever a large mound of earth is seen thrown up by the roadside, it usually opens into a burrow occupied by a female gopher; and if a trap is placed in it, one source of supplying future generations of the *Geomys* family will be effectually stopped.

HIS ENEMIES.

Most of the enemies of the *Geomys* family are nocturnal in their habits.

The gopher snake *Caluber Coupen*, he with the rings of black and of white on his jacket, and from three to four feet long, is partial to these rodents. Just how they catch them it is hard to say, but it is likely that the young ones are preyed upon by these snakes, and because they are not backward in crawling into a burrow if it is left open, the gopher rarely leaves it open.

As these snakes are harmless to mankind, there is no good reason for killing them, and the orchardist is interested in protecting them wherever found, as they are an important ally in clearing his land of the gophers, as well as squirrels, field mice and wood rats.

Another enemy of the *Geomys* is the *Felis domestica*, and he is the one natural enemy that mankind protects.

When Thomas or Tabby takes an evening ramble it is quite likely that a gopher will be met, and the result is that the gopher goes with the cat, even though the cat has to tuck him under the place where his belt would be if he wore a belt.

A good cat will destroy many gophers in a year, even though he may be well fed from the table. The feline instinct is for warm blood, and the gopher offers an easy chance to gratify that taste.

If Tabby happens to be the mother of a litter of kittens, she has also to gratify the yearnings of these catlets for gopher, and it is not unusual for Tabby to bring in two or three gophers daily.

Another enemy that the gopher dreads is the *Strix Flammea*, or barn owl, of rusty red color mottled with white. The unsuspecting *Geomys*, traveling across the field to pass the time of night with a neighbor, is suddenly scooped up by this owl, and many a meal does he make of this ubiquitous rodent.

A pair of *Strixes* were found nesting in a barn one year, and the haymow about the nest was littered with the bones of gopher, squirrel and bird from the time their eggs were hatched until the young birds learned to fly.

He is a wise fruitgrower that protects the *Strix rustica* and encourages him to multiply, even though it may be at the cost of an occasional broiler.

The most fatal of all the enemies of the *Geomys* is the "*Trappus springus*," or gopher trap. In the hands of a novice this trap is a delight to the rodent that is sought to be ensnared thereby, but in the hands of an observing trapper it will destroy 95 out of 100 gophers that elevate the earth into mounds.

THE PROCESS.

It will be found that the burrows terminate at a mound, and if this terminal mound is opened, one trap is all that is necessary. The earth should be shoveled out so that the level of the runway is reached, which will be at a depth of about ten inches. Then the hole should be cleared of loose earth and the trap placed well into it, far enough that only the handle projects from the opening.

It is a good plan to fasten a cord to the trap, and then tie the loose end over a pin driven in the ground. This is done to prevent the trapped gopher from dragging it into his burrow so far that it cannot be reached without digging for it.

As soon as all is quiet, the gopher will proceed to close the opening by pushing the loose earth from the runway into the mouth of the hole. In doing this he presses down the trigger of the trap, which permits the jaws to spring up and fasten themselves into that part of his anatomy that lies between his fore and his hind legs.

If a mound is opened that has been thrown up along the line of the runway, then it will be found that there are two holes or branches to the burrow. In this case two traps will be needed, as it is almost impossible to tell on which side of the opening the gopher may be. The best trap to use is one that has the ring end made not larger than two and one-half inches in diameter, and it will be found that a two-inch ring is large enough to catch any but the largest gopher.

If the trap is so small that it can be easily pushed out of the opening, it is a good plan to place a short stake against it, so that it will resist the pressure from the inside. Whenever a gopher tries to fill up his hole, he pushes with a force that is surprising, and it is for this reason that he will certainly spring the trap. The lever is an obstacle to the outward passage of the earth, and as soon as the gopher reaches it he pushes against it until it is bound to go down or the trap gives way.

A good plan is to have one trap three inches in diameter, another two and one-half inches, and two or three two inches. It is the small gophers that are most frequently found coming in on the cleared ground.

Another useful practice is to cultivate the earth along the fences. As a rule this space is allowed to grow up with weeds, and it offers a good nesting place for the females, as it is unmolested and grows food in abundance. Plow on each side of the fence as close as the plow can be run, and then take a hook hoe and hoe out the land that remains unplowed.

Another thing that is often overlooked is the condition of the fences at the bottom. As the gopher, when migrating, runs across the surface of the earth, he will be kept out of an orchard by a fence that is tightly closed at the bottom for a height of eight or ten inches. He is not a climber—his forefeet are not "built that way"—and if he finds no opening in the board he is not likely to burrow under it.

Some recommend that a ditch be dug around an orchard and that cans be placed in the bottom of the ditch. This may do if the orchard is not fenced, but if it is, it will be cheaper to make the bottom of the fence gopher proof, and just as effective as to ditch.

It is to be remembered:

That a ten-acre orchard is easily freed of the gophers that reside therein.

That as soon as the land is cleared of its resident rodents it invites the homeless from the neighboring fields or the roadside to come in and set up housekeeping.

That a tight fence is an effectual guard against these immigrants.

That after you have cleared your orchard from these pests, then the gopher snake, the cat and the barn owl will be found useful allies to keep the gopher thinned out of those fields that are not cultivated.

That eternal vigilance is the price of dead gophers.

C. D. S.

THE APIARY.

Beekeepers' Problems.

LAKESIDE APIARY, BAKERSFIELD, Oct. 22, 1892.

TO THE EDITOR:—It appears one at least of your correspondents survives to tell the tale of an off year in apiculture. Whether it be a survival of the fittest or a creature of circumstances does not clearly appear; yet, from the tone of his letter, we incline to the latter opinion. To the often-recurring question, "Does bee-keeping pay?" the writer would say yes; but would qualify this assertion by stating that success is quite as dependent upon environment as that of any occupation with which we are familiar. The unhappy apiarist is the toy of the elements in which a slight variation from normal means failure. There are some locations, I believe, both east and west, where, with combination of skill, a good measure of success is obtained year after year.

It would appear at times the beekeeper is the butt of many adverse conditions. Some months ago, I note, one of your correspondents advised his unfortunate brethren to seek Kern Co., as the Mecca of the apiarist. So far he is wide of his mark, for a newcomer would, we think, hardly find a benefit by location here. At the outset, so far as natural resources are concerned, it might well be said to be positive starvation, our main and only dependence being from artificial or cultivated bloom. It is true, in late winter and early spring, there is usually a succession of natural bloom, which suffices to build up colonies suitable to swarming and working condition; but there it ends, and the natural supply must be supplemented by the artificial or work of man. At this juncture, alfalfa has generally advanced sufficiently to yield nectar. In hay districts one often succeeds with fair crops. The fact, however, obtains that this is not a hay county, conditions being so favorable for the grazing of stock over a large portion of the year. Cattlemen do not, as a rule, harvest large quantities of hay, a circumstance which cuts short what otherwise would be an extended season or the beekeeper's paradise. Good ranges are at present, so far as I know them, occupied. Perchance, should a location prove fortunate in succession of alfalfa-cropping with corn harvest, either Egyptian or Indian, with sorghum, happy is the beekeeper, unless we are overtaken by other misfortune. The old proverb, "There is never a rose without a thorn," may be applicable to our industry; for, were all conditions favorable, we have disease, of which the writer has been complaining for the past four years, which it appears has come to stay. How to combat it with success none knows. So far as my investigation has extended, it goes to show the cause is beyond the control of the beekeeper.

Considering the circumstances as we know them, all beemen will do well to give Kern a wide berth. Personally, we are looking for pastures new to which to take our busy workers. In writing as to the number of colonies to a given location, the correspondent should qualify the estimate by the amount of flora. In the main he is correct, that ranges, as a whole, are overstocked and that probably by one-half; hence the remaining bees would more profitably gather the crop. The writer has thought that some means of expansion and contraction of colonies numerically might be devised, and has practiced such in a limited way, of which I will speak farther on. True, crops might be somewhat further increased. With me it takes stores to winter bees. I think it better to put them in with 50 pounds than less. My experience shows that a vigorous queen with heavy stores will send out an early and large swarm. Scrimping in stores is pennywise and pound foolish. One cannot get bees without honey or its equivalent, or honey without bees and thousands of them. Take, for instance, a new swarm that fills the hive and a cap also; give them frames and material, and note what they will do for you. We read of the wiseacres back East who winter on 25 pounds and come out with spring dwindle. Starvation in the beehive will never pay. A fat, well-fed bee "is a thing of beauty and joy forever," and full of business at both ends.

Holding down the increase works to larger yield of honey. We have succeeded well when there is much swarming fever and consequent after swarms, etc., by cutting cells and doubling up somewhat as follows: "A colony which has cast a swarm will work well until about the fifth or seventh day, when it will cast another. This will usually come forth and unite in the air or cluster with another. The virgin queen is of course lost (but we are not now figuring for increase), and they unite with the old queen. The after-swarm calamity does not trouble the writer, though it is best not to allow further depletion. Going through, we cut all cells, and as at this time they have no brood suitable to build others, the fever is broken. Unite now two or more of the swarms thus treated and move them where you like. Give a hatching queen cell after a few days, and you have a No. 1 swarm for business. At this season, all know, bees are easily manipulated. If they don't work just where I plan for them, why I twist my plan to suit them. What matters it, so long as they work. I have read about going out to smoke them into work, which is of course bosh. A bee is no idler and will ever work if his conditions are right; if not, you have to find where the hitch is, which often keeps one's thinking-cap on the jump if there are swarms coming at the rate of a dozen per day.

The point in regard to building of combs is well taken. In the writer's opinion, it pays to make wax; that is, to a certain extent. Our best success in hiving swarms has been on starters in hives and frames of second or third use. The smell of wax and former occupation appeals to home-seeking instinct of the bee. Here she finds ready use for her load of honey and wax. It is customary for me to let them work on a full set of starters until the queen begins to lay. If, then, there is a supply of old comb, to hasten matters, put in each day empty combs below, but never a full cap of combs, until all are drawn out below, unless over a queen excluder. Experience teaches that bees require to build a certain amount of comb to get the best results.

It is also better in this valley, and I believe elsewhere, to allow capping, as you get a certain finish which renders the house more healthful and gives it better keeping qualities. Your correspondent is in error as regards throwing out unsealed honey, as he will find probably by testing that such honey candies more rapidly, is not as clear and has an acid taste in the throat and mouth. After the first extraction, repairs upon comb and drawing out utilizes wax, hence it is not necessary to build the new as he suggests; still, one might do so if combs are needed. It would never pay me to raise a cap to keep comb-building going on below. Here the writer departs from nature, as the swarm does not seek to renew its brood comb, but rather only to extend for storage.

In contracting after harvest, I unqueen such as are not desired and unite bees, extract and melt comb. It is a nice plan to take a lot of queenless swarms and unite several on a frame of brood; all the bees will take the new location and stay with the brood, and generally hatch a new queen which will do good work the coming season. To preserve surplus combs, it has been found in this location that bees will take care of and keep the moths out of a tier several caps high. We have some now two high. This, of course, would not apply to a cold location. Thus it will be seen a limited expanding is had by fostering the best swarms, and contracting by culling the poor after harvest, also at the same time renovating your stock of combs.

The correspondents whom I have criticised should see that it is only in the kindly spirit, and for the purpose of provoking discussion. We hope to say something upon hives, especially patent hives, ventilation, etc., in the future.

W. A. WEBSTER.

THE HOME CIRCLE.

Three Days.

Written for the RURAL PRESS by ISABEL DARLING.

We had questioned the deep, winding canyon,
Its innermost secrets to learn;
We had challenged the stoical boulder
And peeped in the tangles of fern.

In the dim, haunted aisles of the redwoods
The vines were ashiver with fright,
And the oak trees were climbing the hillside
Away from the specter of night.

The madronas were idly disrobing,
And the pines droned a chant of despair
As the thickets of slumberous laurel
With memories burdened the air.

We had followed the hurrying waters
Beyond where all-foaming they dashed,
With a whirl, on the rock, in their fury,
Then fawned at our feet, as abashed,

They had shuddered and sobbed to the mosses
Their story of struggle and fret,
Of the long-ago peace of the hilltop,
The rush, the recoil, the regret—

Still beyond, till they curved to the westward,
And leaped, with a frolicsome bound,
To the valley, and sunshine, and freedom,
With fluttering rainbows encrowned.

Then we turned, and the shadowy canyon
With color and warmth was alight;
All the redwood and pines were awaking
From dreams of the far away height.

The madrona leaves quivered with rapture,
The oaks spread their arms to the breeze
That paused by the thickets of laurel
To whisper of birds and of bees;

And below, on the island that nestled
Close under the silvery spray,
Stood a holly bush, crimson with berries,
Aglow with the glory of day!

* * * * * *

We had traversed the darkened alley
That sulked in the rear of the street,
And the dust of the way was upon us,
The throb of its wearisome heat.

All the idle, the vicious, the wicked
That cumbered the earth, so we said,
Had been huddled like venomous reptiles
Where misery flourished and spread.

But at last came a glory of sunshine
That scorched us no more with its heat,
For it brought from the generous ocean
A blessing to lay at our feet.

And we saw in the shimmering brightness,
A child with a tangle of hair
All a fluff of red gold on her shoulders,
And tiny feet dusty and bare.

She was and was not of the alley,
For out through the blue of her eyes
Her soul seemed to reach, in its kinship,
The beauty of ocean and skies.

And the wretchedness softened about her,
The sullen grew tenderly sad—
We thanked the dear child of the alley,
Then passed on our way and were glad.

* * * * * *

And again, as we lingered at evening—
The mystical evening of death—
And awaited in pitying silence
The floating away of a breath,

In the glow of the spirit, transfigured,
We saw the still form where it lay;
Then we knew 'twas not death, but transition,
A passing from twilight to day.

So, forever, we trust, and forever,
Though rough and uncertain our ways,
We shall come to the beauty and sunshine,
Somewhere, at the end of our days.

Fashion on the Farm.

"Mind, Elvie," called out Mrs. Serle, from the east porch, "get the darkest gingham you can find for the aprons."

"And some dark-colored ribbon for the hats," cried Cousin Kate, from the garden where she was pulling huge stalks of pie-plant for a batter pudding.

Elvie chirruped to old Fan, who trotted briskly along the prairie-road bordered by richly-growing acres of grain. Now and then a "high grade" was edged by long ditches full of clear, shining, rippling water, where young, yellow goslings were taking a morning bath, while the sloughs, filled with water after the late rains, showed fluttering plants above them and sun-sparkles on the tiny waves.

"O, what a fresh, inspiring morning!" exclaimed Elvie, aloud. "There's a white convolvulus! and a lovely pink wild-rose right under Fan's feet!"

She looked down at the bed of dead white bells among the fresh greenness and smiled at the bright-eyed daisies and the myriad creamy, syringa-like blossoms thickly strewn over the low land. Here and there shone a tiny golden star flower, while little clusters of sweet, blue blossoms, with ferny leaves, grew close to the ground, half-hidden by the grass.

"So sweet after the rain!" said Elvie again. "How blessed it is that the Creator did not make them dark-colored, as I really believe mother and Kate would have done! They would not have taken pains to fringe those lovely daisies, nor shape the yellow stars either; they'd have given them the plainest shape possible—a shape which would have been of some real use! I'm tired of the way we dress! I never realized what homely, humdrum creatures we are in that particular until I saw Flo Darling's magazines yesterday. It's strange how they will fuss over cake-icing, meringues and the notches 'round cooky edges; how they will spend time in ornamenting pies and glazing biscuits and garnishing meats, while they ignore the little prettinesses of dress, whatever tends toward style or elegance in everyday wear. They? I must say we, for I've been doing the same thing. But I'm going to astonish them! I'm going to change my manner of dressing this very week!" She nodded decisively toward an aspiring sunflower stalk beside a heap of glittering bowlders.

"Those nicely dressed figures, those dainty aprons and hats and ties, flit before my mind all the time, ever since Flo unfolded their delights to my eyes. I am going to try to make an improvement in my wardrobe. Maybe Kate will consent to do so, too. I don't see, because a girl is a farmer's daughter, why she should wear old-fashioned, ugly clothes even about her work!"

So Elvie rode on among summer pleasures of sight and sound until she reached the little town where the windows of the "general store" displayed a goodly variety of the things usually pleasing to the feminine eye.

The eggs, poultry and butter were exchanged for the articles decided upon in family conclave, excepting Elvie's share of apron gingham, which she chose in blue and white instead of the "darkest," and two yards of handsome plaid ribbon instead of four of dark brown. She stopped at Flo Darling's to see the magazines on her return, and reveled for the rest of the ride in plans for remodeling her few gowns and other garments.

Visitors were at the farm when Elvie reached home, and the matter of entertaining left no time for anything else until late in the afternoon, when the trio sat in the kitchen resting before supper-time.

"I've been thinking," said Elvie, trying to speak boldly and cheerfully, "that we ought to pay a little more attention to our dress. It makes one more pleasing to look upon, and so adds to one's influence for good. We always make our work aprons so big and clumsy, and never trim them any, when we might as well look nice about our work as at any other time. And our hats, Kate! I bought some of this pretty ribbon, which I thought we might mix with the brown and put on in this fashion," and she deftly twisted it into some graceful loops.

Mrs. Serle's face grew sober. "We can't follow the fashions, Elvie. 'Tisn't possible when a body lives on a farm 'n' has work takin' up the mind from mornin' till night. The women that live in towns 'n' have nothin' else to do but dress up 'n' go visitin' can afford to have things fine 'n' fancy; but here we must have things plain 'n' serviceable, without any flyaway fixin's. You'll get a husband just as quick dressed as you always are, as if you rigged up like one of them fashion women."

"I never would have thought," chimed in Cousin Kate, who was a year older than Elvie, "that your head could be so easily turned with those foolish pictures! If you want to put flashy ribbon piled up in front on your hat, you may have it all; but I shall trim mine severely plain, as I always have. I do like neatness, plainness, and serviceableness in dress. There's that Flo; ever since she's been taking those books, she's been going round mornings with a white frill round her neck! 'Cats in gloves catch no mice,' I say. A body can't do housework faithfully, trimmed up in collars and cuffs and frilled aprons. And we'll get as good husbands, and better, as aunt says, by being snug and plain."

"Well, Katie, I don't believe all you have said, though you are sincere; and I mean to be as pretty and attractive in my way of dressing as it is in my power to be. You don't object to my doing my work with a collar on, do you, mother, providing I do it as thoroughly as without one?" Elvie looked eagerly at her mother.

"No, child. I'm willing you should fix up all you want to, so long as you don't neglect your duty; but there's somethin' more than living for fashion."

"Certainly, mother dear. I don't wish to make dress the aim of my life, but I want to practice what I lately have been led to believe: that as God has made things in nature for mere ornament, and to please our eyes, so we should not neglect pure ornamentation in personal appearance as well as in our manners. You smile beautifully, Kate, when you talk to people; why don't you keep your lips severely shut? You put peacock's feathers in the mantel vases, you make a paste tulip in the middle of the chicken pie; yet you refuse to let your garments smile or show a gay ribbon."

"Oh, fie!" cried Kate, going to the window. "By the by, did you hear the Langtons say that we are to have new neighbors over on the Fairmont farm?"

"Yes, two brothers, bachelors, by the name of Irwin, from the East. That's more than the Langtons told; I heard all about them at Farley's this morning. I hope they will soon marry; it would be so agreeable to have neighbors only a quarter of a mile off! Oh, Kate! when one of them sees you smile—"

"Fie! fie!" cried Kate again, while Elvie gathered her gingham and ribbon and tripped upstairs to her bedroom.

Next morning, a blond-haired maiden moved about the large kitchen with a soft, white ruffle about the neck of her calico gown, and her hair arranged in a new and becoming style. A couple of days after, she had on her new apron, daintily made with a bib and wide, long strings, and the edge trimmed with knitted lace. When there was scullery work to be done, a large apron, made from the back breadths of an old gown, was put on until such work was finished.

Kate looked severely askance at these innovations, as with brown, collarless basque, and ugly, print apron gathered full into a wide band buttoned about her waist, she starched, ironed, and cooked the nice dishes she delighted to adorn. Elvie's eyes were full of new joy as she contrived coquettish little bows and charming cheese-cloth aprons, sewed rosettes on her morning slippers, and even evoked a tea-gown out of two old cash mere wrappers that had long lain in oblivion.

"Such an enjoyable variety!" she said to herself. "It spices up the routine of paring and stirring and mending."

"You look nice, daughter," Mrs. Serle would say; "but it's useless frippery, after all."

"So much washing and ironing that is really needless!" Kate would chime in. "White aprons and frills and light dresses!"

"But I'd as lief wash and iron laces and frills for myself as for the spare room pillow-cases," Elvie would answer, "and I do believe one feels in a more Christian like frame of mind when one is prettily and becomingly dressed, than when one is not. I know I do."

"Girls," called Farmer Serle, one morning, "the Irwins are coming over to get supper and play croky. I saw them in town, and asked them."

"O!" exclaimed Elvie, "how fortunate that Flo Darling is coming to-day to help me with my jacket for the picnic! Won't we have a gay time, Kitty?"

"Yes, I must go to work at once and make a chocolate cake. We've only one kind, hardly suitable when strangers are coming. How you do fuss over jackets and things! My shawl has done me for three summers and will last three more."

"O Kit!" Elvie's eyes shone. "Do let another cake alone and let me fluff your pretty hair and fix you a dear little jabot for your brown sateen. The Irwin's would give more to have a well-dressed young lady sit down and chat with them than to eat two kinds of cake—even your pet forte, chocolate!"

"Tut! Nell. A man's heart is in his stomach! He doesn't care how a woman dresses if she's neat and clean. Don't think of prinking me up with your furbelows. You may dress and talk to the young gentlemen; I'll make a cake that will fairly enchant them!"

"But I made some rolls and floating island just as enchanting? Can't one make goodies and look nice, too? I'd like to know why one cannot do both equally well.'

When Horace and Frank Irwin met the young ladies that afternoon, they noted with wonder and amusement the difference in the toilets of the fair damsels. Flora and Elvie were pretty in dainty lawn gowns with waves of lace about corsage and sleeves, and blue ribbons tied about their white throats, while Kate welcomed the strangers in an ungraceful attire of brown sateen, the bodice unrelieved by trimming of any kind, the neckband fastened with a black pin, and her full, long, kitchen apron, of dark calico, buttoned around her.

"She's really good-looking, and would make a fine appearance if she would pay more attention to dress," thought Frank. "Why doesn't she toss up her hair into pretty little curls as the others have done, instead of combing it down in that grandmotherly way?"

There was not much difference between the girls in the matter of attention to the comfort of the guests, so the latter noticed, but there was a nameless grace and winsomeness about the pair in the dainty muslins that the other certainly lacked, and that made them very attractive to the young farmers. After the well-ordered supper and the fascinating "croky" were over, and the Irwins walked home to their lonely house on the rich, beautiful prairie, around whose door grew the wild rose and the flaming scarlet lily, they talked of the trio with whom they had just spent three pleasant hours.

"That Miss Kate is a fine housekeeper, Frank," said Horace, "just the one to keep your quarters trim, if I might judge from my observation of her this afternoon. Not at all like the others is she?"

"No, to be sure! When I marry, Horace, it will not be a girl of her appearance. I prefer one one of the others."

"Pshaw, Frank! A farmer needs a steady, plain worker, not a butterfly, for a wife."

"Look here, boy!" laughed Frank, "we can scrub and keep the house clean and snug and all that, and we can make a dummy and dress it in a gown and apron, but a fellow wants more than plainness and substantialness to make his home a paradise. It needs the little airy graces and motions, the pretty dresses, and curls and ribbons, the thousand little femenine nothingness that you can't define, yet which you enjoy so much. And mind, old boy! those two pretty girls can keep house as well as the ill-dressed one, if my observations amounted to anything! And I know you think the same as I do, by the way you were looking at that lovely Miss Darling."

Horace reddened. "I—I couldn't help admiring that cute white apron which she wore, and the roses at her waist. To be truthful, I do agree with you, Frank, and hope that the Fates may kindly place the fair ladies in our homes, when our hands have done all that men's hands can do toward the home-making. You certainly seemed interested in Elvie Serle, so I know you will say 'Amen' to my speech. Yes, I believe that girls who are nice about their personal appearance will be nice in housekeeping and everything else!"

The Fates were kind, and in due time placed Elvie and Flora in the fine double farmhouse. Usefulness and beauty go side by side through every department of their homes. "If fashion is needed anywhere," Elvie still says, "it is needed on the farm."

And Kate remains Miss Kate, whose pleasant smile is no antidote to the unattractiveness of her apparel; and she still descants on the weakness of women who "follow the fashions."—Demorest's Magazine.

Brother Hardesty Refuses.

Trustee—Brother Hardesty, how much are you going to give for the support of the church this year?

Farmer Hardesty—Nothin'.

"Haven't you had good crops this season?"

"Yes; purty good."

"Had any sickness in your family?"

"No."

"Lost any of your livestock?"

"No."

"Has anything disastrous happened to your barns or farming implements?"

"Nothin'."

"Then it strikes me, Brother Hardesty, you are not showing a proper spirit of thankfulness for the prosperity that has——"

"Prosperity? Say, we've had the cholera scare, hain't we?"

"Yes, but the pestilence has not come, and that is all the more reason why you should——"

"Hasn't come? I'm not talking about the cholera. I'm talking about the scare. See that 14-acre field over yander?"

"Yes."

"Well, I planted it in cowcumbers for the New York market. Fourteen acres o' cowcumbers! An' they ain't wuth pickin'? That's what ails me this year, Brother Ashcraft. I hain't got no grudge, but I don't feel under no obligations, by gum!"

CLERK (of furnishing store)—Is there anything else, madam, that you would like to get for your husband, to-day?

Mrs. Bingo—No, I believe not. By the way, when you send the package home, be sure and have the pajamas done up separately. If you don't, he will get the idea in his head they are for him.

Vanity and Egotism.

Written for the RURAL PRESS by MAID-OF-ALL-WORK.

Some very original eastern writer has said that a woman without vanity is a monstrosity in nature. Call to mind, if you can, the fleeting glances you may have had of faces of sisters of charity, or the faces of some modern protestant sisters or deaconesses, who have been trained to be what they are, or look at the photographs of some young women who have long devoted themselves to study; think of these countenances and you will be conscious of something lacking in them all.

There is something lacking in the photograph of this devout deaconess, I hold in my hand, that gives me a bit of a heartache. She has prayed for "all of thee," and none of self, asking that the nature that God pronounced good should be set aside till something has gone out of her leaving its vacancy.

It seems to me that a woman who has not self-love enough to be natural, ceases, in a measure, to be attractive to others, and thus averts some of the good she might do. Those who are kept warm and strong by the play of the natural affections (and this includes loving to be loved) are in a far richer condition to give light and comfort than those who know no human love and joy.

An elevated spiritual condition is not enough; the heart should be happy as well as holy. Self-sacrifice in temporal things creates its own reward, but to stint love and happiness out of the heart, fancying that it will be more holy, is to quench the fire that would warm many a cold life. A barren and joyless spirit moves with a chill that is felt as it passes. To teach happiness, first live it.

Be vain enough, dear zealot, to know that you deserve friendship, love, happiness, joy, and the hands that carry ministrations will be warm and thrilling. If the natural, pure emotions of humanity exist in your heart, all the great deeds you would do will be easier done, and done closer to the will of the great human heart of God. The vanity I speak of is to hold yourself worthy of the joys of life, and being worthy, to get them.

The woman without vanity suggests the man without egotism, who is not a safe leader to follow. To feel that you can win the battle is the battle half won, and to feel that you will lose is the battle half lost. You must feel that you can do, in order to command the determination that is necessary to action.

We are sometimes annoyed by the bores, who are trying to do things in which they will never succeed; but what if the world were full of people who would not do things they might as well do. Indeed, there are more of them already than of the first class.

Egotism is commonly named as a too exalted opinion of oneself. Must we not have that in order to drag ourselves to higher points of endeavor? One must look up in order to get up, and reach in order to rise. The man who never does this is a block on the family and social wheel.

Humility after success is becoming, but humility before endeavor is the block on all the moral reforms of the times. The man who holds his head high and straight like a fast horse is the man who dares, and dares well.

If the woman of sweet and wise vanity rounds out the life of the man with sufficient egotism, and helps him to use it well, then the world will move very well for them, and for those who love and imitate them.

As Pronounced.

Written for the RURAL PRESS by A. E. T.

I live near the Pacific. Across the continent from the Atlantic coast once came to me the story of an old salt, who, on seeing in New York harbor a yacht named Psyche, remarked he "never saw 'fish' spelt that way."

I can match the story now with one I think as good (and I know is true) from the Pacific coast.

In a certain California town, a few miles from the ocean, lives a merchant, whose favorite recreation is fishing on "the banks," a few miles out to sea. For this he brought himself a pretty little "clinker" boat. This he named after his little daughter. So, painted on each side of its prow, may be read the bold, many-colored letters XARIFA. This rather unusual name, some may remember, occurs in a Spanish song, quite a favorite 40 or 50 years ago, and beginning

"Arise, arise, Xarifa,
And lay your golden cushion down," etc.

Well, one day when this merchant was starting out in his boat, an old party fishing off the wharf near by stared hard at the little craft, then, rolling his quid to the other side of his cheek, said:

"Well, I never saw Africa spelt that-a-way before!"

But funnier still, some of us think, is a remark made by this same little girl the other morning at the breakfast-table.

Her papa takes *Puck*. The little girl is as eager as any one to get hold of the paper each Saturday "to look at the pictures." No one knew how much she read in it till this time I speak of. Her elders were saying something about Munkiltrick's Arabian Nights, when up spoke the little girl:

"I'm reading the Conscientious Plunderer, too."

"The what?" and her big brother turned upon her, while every one listened to see if they had heard aright.

"Why, the Conscientious Plunderer—that story has so many unc——"

And then Xarifa stared in round-eyed amazement at the shout of laughter which went round the board.

"O—h!" cried the big brother, as he wiped his eyes, "Plumber—Plunderer—pretty good."

YOUNG FOLKS' COLUMN.

A Boarding-School Frolic.

"Girls, we're going to have such fun!" said Ida Colton. "Nell Evans has invited us all to Evansdale to a masquerade party—and you're to select your costumes at once!"

There was a universal outcry of joy at this pronunciamento, which was shouted in the sweetest of silvery sopranos from the top of a desk. Mme. Morini's young ladies were enjoying their noon recess on this bright glittering February day, and every one knows what a noise 20 school girls can make if they choose.

"A masquerade!" said Marian Hampshire. "How delightful!"

"Can we select any dress we please?" said beautiful Mirian Holley.

"Would it be *selon les regles* to go without any especial dress, if one has a fresh white muslin?" timidly asked Alice Appleton, whose mother was poor, and who earned her own board and tuition by giving lessons to the smaller girls.

"Will madame consent?" breathlessly questioned Louise Hayward.

"Madame will consent to anything that Nell Evans chooses to ask," triumphantly announced Ida Colton. "Nell was one of madame's graduates, you know, and a pattern damsel in all respects, and if Nell were to request that we should all attend her masquerade costumed in pink tinsel and walking on our heads, madame would say, 'Quite right, my dear, a very sensible idea of yours. I shall be delighted to have my young ladies go.'"

There was a general laugh at this, and then came the joyful task of selecting personalities, studying up the costumes in old engravings and antique fashion-plates, and turning over the combined stores of the whole school in sash ribbons, artificial flowers, jewels and plumes; for, although the graduating class, which alone was invited, consisted of only eight young ladies, the interest concerning Miss Evan's masquerade party was disseminated through the whole school in no measured degree.

And Alice Appleton's gentle heart in particular beat with innocent anticipation, for she had sometimes fancied that Capt. Hugo Evans, the brother of the pretty hostess, had looked upon her with a tenderer glance than he vouchsafed to the other young ladies of his acquaintance. To be sure she had no party dress, but the individuality suggested by Mirian Holley; "A Snow-flake," would be sufficiently interpreted by her simple muslin gown, with a few of the starry-white flowers of the Catalonian jasmine in her hair.

"But you're not going to let those girls go alone," said Miss Polly Prout, who was Mme. Morini's cousin, housekeeper and chief counsellor.

"Certainly I am," said Mme. Morini. "Why should I not?" It is only to dear Nell's house."

"It wouldn't be at all proper," said Miss Polly, pursing up her thin lips, and the hearts of the eight young girls sunk simultaneously into their boots. "Such a party of giddy girls with no responsible companions! Mme. Morini, I wonder at you! It would not be allowable, unless, indeed—"

"Unless what?" said Mme. Morini, and the eight lassies listened breathlessly for Miss Polly Prout's reply.

"Unless I am to go, too, as their chaperone!" said Miss Polly.

"Oh, that wouldn't be according to etiquette!" cried the girls in chorus. "Nell didn't invite Miss Polly Prout."

"Will you be silent, young ladies?" said Miss Polly, rapping on the desk with a wooden ruler, in a sort of autocratic way of hers which the girls especially disliked. "Mme. Morini certainly cannot have given the matter due consideration, or else she would at one perceive the impropriety of the original plan!"

And Mme. Morini, who was an amiable, easy-going lady, governed in most matters by her cousin's energetic will, finally gave way and announced her conviction that Miss Polly Prout was right.

"I can put on my green gown and a tinfoil covered helmet, and go as Minerva," said Miss Polly Prout; "and then I can keep my eyes on the young ladies the whole time."

"What have we done that a spy should be set upon our actions?" said Ida Colton, indignantly, when they were by themselves.

"Minerva, indeed!" cried Marion Hampshire, with a protrusion of her plump chin and screwing of her cherry mouth so exactly in imitation of Miss Polly Prout that all the girls burst at once into a spasmodic giggle.

"Hateful, forward thing!" sputtered Louise Hayward. "Why, she'll spoil every bit of our fun!"

"How dare she obtrude herself, uninvited, upon poor Nell Evans?" said Mirian Holley.

"She shan't come," said laughing Kate Kesley. "She shall never cross Nell's threshold."

"But how will you help it?" said Alice Appleton.

"We'll see!" was Katie's emphatic answer.

The next week was a week of glad preparation for the forthcoming event, and no one was more diffcult to please, or more exacting in her selection of materials, and her ceaseless calls upon the aid of the young ladies, than Miss Polly Prout, who ordered a new "bang" of glossy chestnut hair for the occasion, which would have been quite perfect if it had matched her back braids a little more exactly, and had a pair of green-satin sandals made by the village shoemaker, and a mosquito-pole gilded to represent a spear by the picture-frame dealer.

"One likes to observe all the niceties," said Miss Polly, while in her middle-aged mind rose up the delusive idea that perhaps some mature masquerader of the opposite sex might perceive in her some greater attraction than the youthful roses and girlish graces of the eight graduating girls.

"Stranger things have happened," complacently thought Miss Polly, as she stitched away at the satin rosettes which were to modernize her green gown!

But in spite of all her precautions, the first sleigh-load of laughing girls started without her, while she was tying her fur hood over the tinfoil helmet.

"What! gone already?" said Miss Prout, angrily. "Why didn't they wait? What right had they to go off without notifying me?"

"Don't mind, Polly," said Mme. Morini, soothingly. "Eight was all the sleigh could carry besides the driver. Michael says his orders were to bring the cutter for you."

"Orders!" shrilly repeated Miss Polly. "But whose orders? Does Kate Kesley manage this institution, or do I—and you? Me crowd into a cutter, indeed—with a staring Irish lad like Michael to drive! A pretty arrangement."

But in spite of her indignation, Miss Polly Prout was compelled finally to accede to the obnoxious plan.

"Drive quickly, Michael," she said to her young Jehu, "for it's getting dark already, and I don't at all like the woods that we have to go through. Why on earth those girls couldn't have waited—"

But the jingle of the sleigh-bells and the sudden start of the horse brought Miss Prout's sentence to an untimely termination, and away they went over the frozen road.

Not far, however. Just within the darksome limits of the cedar woods, where the purple dusk that still lingered in the open fields seemed turned to the gloom of absolute night, a tall, white figure, with a black mask covering its ace, stepped forward and seized the horse's head, while, partially hidden by the drooping evergreen boughs, a little group of other figures lingered.

"Burglars!" shrieked Miss Polly Prout, dropping Minerva's gilded spear into the snow. "Assassins! Masked robbers! O, kind gentlemen, spare, spare my life, and all my jewelry is yours!"

And tearing her gold-plated bracelets from her wrists, she flung them and her watch into the road.

"Arrah, the saints betune us and all harrum!" squeaked Mickey, the Irish lad, as he cowered down in the bottom of the sleigh.

"Descend—and depart!" uttered a deep voice. "Look behind at your peril!"

"Wh—where shall we go?" stuttered Mickey.

"To the place whence you came," was the stern reply. "And at the risk of your lives be speedy and secret!"

As Miss Polly stumbled, more dead than alive, out of the cutter, she was turned briskly around by the shoulders, so that she was facing the winding road by which they had come, while Mickey found himself spinning, around and around, a few steps further on like a teetotum.

"Depart," once more uttered the warning voice, and Miss Prout and Mickey, clinging wildly to each other plodded away in an agony of terror.

Half an hour afterward the luckless pair arrived, half frozen and worn out with fatigue at the Morini Institute with a gruesome tale of having been arrested by masked robbers and having escaped by the most marvelous good luck from being murdered outright. The gardener and two men from a neighboring farmhouse were at once detailed in pursuit of the robbers, but when they reached the scene of action all that they found was old Dobbin shivering by the roadside with the cutter turned over on its side where he had dragged it into the deep snow.

The eight young ladies, however, enjoyed a most delightful evening at Evansdale, quite free from Miss Polly Prout's malevolent supervision, and, strange to say, expressed no sort of surprise at her nonappearance on the scene. But they took care to leave behind them at Evansdale eight black satin masks and eight white sheets, when they once more entered the double-sleigh to return home.

Miss Polly Prout transformed herself into a heroine next day as she related her adventures.

"And so you weren't stopped?" said she to the girls. "Not even molested?"—Well, well, how very singular! I really think if we hadn't made such a brave resistance I should be carried away by main force—a regular abduction you know," and Miss Polly simpered.

"How many ruffians were there?" innocently questioned Kate Kesley.

"Fifty, at least," said Miss Polly. "Great, coarse, bearded villains, with their eyes covered by masks."

"Dear, dear, how dreadful!" cried Ida Colton.

And the eight young conspirators looked archly at each other, as Miss Polly Prout hurried off to check the washerwoman's bill, and cried in laughing chorus:

"What a very romantic adventure! And what a very narrow escape for poor, Miss Polly Prout!"

"I TELL YOU," said the calamity orator, eloquently, "our conditions under the reign-in' party is bad enough and they're gettin' worse every year."

"That's right," interrupted a sympathetic voice in the audience; "you ought to a seen the rust in my wheat this fall."

MARCH—When you visited the museum to-day did you see the instruments of torture that are on exhibition?

Hearwell—Yes, but the display is incomplete.

March—What does it lack?

Hearwell—A boarding-house piano.

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AGRICULTURAL NOTES.

CALIFORNIA.

Butte.

THERMALITO OLIVES. — Oroville *Mercury*: Messrs. Jones and Fogg had at the Rideout bank to-day a jar of olives that were picked last week from their fine grove at Thermalito and pickled by Mrs. A. F. Jones. They kindly invited their friends to sample the same and pass upon their merits, and an epicure could not have discovered any fault in their flavor. They were rich in oil, of large size, and the bitter taste was entirely removed. They are fully the equal if not superior to the finest imported article. Although very young, a conservative estimate places the output of the grove this year at 1000 gallons, all of which will be converted into pickles. The pickling of the fruit is now going on. The grove is the property of Messrs. Jones, Fogg and McLaughlin, and the gentlemen expect to make a creditable exhibit of its products at the World's Fair.

Fresno.

MONEY IN FIGS.—Fresno *Expositor:* B. F. Lawson has come to the conclusion that it pays to dry figs and market them. He has a good many trees on his place for shade and ornament, but he did not think it worth while to bother with gathering the figs. One day an agent for a packing-house came along and asked Mr. Lawson why he didn't gather his figs. Mr. Lawson replied that he didn't consider them worth bothering with. The agent said he would give four cents a pound for them. Mr. Lawson said he didn't care to bother with them, but told his two girls that they might have all they could gather. The girls worked at gathering the figs occasionally and at odd times, and placing them on trays. The other day Mr. Lawson brought the figs to town and was surprised when he was handed a $92 check to pay for them. Mr. Lawson is now of the opinion that it will pay to gather his figs another season.

CURING SECOND-CROP RAISINS. — *Expositor:* Herman Meyer, a vineyardist living a few miles east of this city, has a new kind of raisin drier, which, for cheapness and efficiency of work, he considers the best he has ever seen. The drier is small, being only 12x20 feet. He is using it this season for the first time, and so far it has proved itself to be a good arrangement by which to dry raisins. Mr. Meyer calls it his portable drier, on account of it being so easily moved from one portion of the vineyard to the other. The drier consists simply of a close tent stretched on the ground and in which the trays containing the grapes are stacked. The heat from the small furnace outside is conveyed to the tent, around through it and back out in an ordinary stovepipe. On the outside the pipe rises into the air so as to furnish the draft. The entire cost of such a drier need not be over $75. Mr. Meyer puts grapes in the drier only after they have been turned. The capacity of the drier is two and one-half tons. Three-fourths of a cord of wood will dry one drier full of turned grapes. Mr. Meyer now has all of his second crop of grapes about ready for market. During the day the sun shining on the tent helps to heat the drier, and also the light going through the canvas has the effect of giving the raisins the right color. During the night the drier is heated to about 95 degrees, and during the day from 100 to 125 degrees. Mr. Meyer thinks that for a small vineyard his experimental drier cannot be surpassed. He thinks that large vineyards could, by having several of them, use them to good advantage around through the vineyard.

Inyo.

LOOK OUT FOR FOXTAIL.—Ed. M. Clarke, veterinary surgeon, in Bishop *Register*: I wish to make known to the public the great danger in feeding or pasturing stock on the grass commonly known as "foxtail" when ripe or after the beards have well formed. A few days ago I held an autopsy on a horse that had been ailing for some time past, becoming more and more debilitated, having partially lost the power of deglutition, and presenting well-marked symptoms of pharyngitis, with other complications. On post mortem examination, found that the beards, and even the semi-masticated heads, of foxtail had passed through the soft palate in great numbers, giving it a perforated or sieve-like appearance. From this the inflammation had spread both forward and back, implicating the posterior nares, nasal septum and sinuses posteriorly, and larynx, trachea and pharynx. Beards could also be found in the mucus and muscular coats of the entire alimentary track, in which some had become encysted, while others had caused the formation of small abscesses.

Los Angeles.

PEANUTS BETWEEN TREES. — Cor. Pomona *Progress:* In growing an orchard there is scarcely any one who would not like to utilize the ground between the rows of young trees in planting some crop that will pay, or partly pay, the expense of cultivating and taking care of the orchard. During the long time that I have been engaged in horticulture, my experience has shown me that certain kinds of crops grown between the rows of trees are detrimental to the growth of a young orchard, while others do not seem to hurt the young trees. To enumerate those crops that are detrimental, I will mention corn, wheat, barley and oats. Those crops that do not seem to hurt the young orchard are potatoes, beans, peas, melons, tomatoes, pumpkins and peanuts. Of all these food products, of which our rich soil is so generous in its yield, I have found it scarcely pays the trouble to raise them, on account of our distance from a large market, excepting the one article of peanuts. The yield of this article in our wonderfully productive soil and glorious climate is simply phenomenal. I venture the statement that they will return $75 per acre at four cents per pound—they are worth more than that now in San Francisco. In order to raise them on a somewhat large scale, machinery for planting and cultivating them must be introduced here from the peanut-growing districts of Tennessee and Virginia. The same care that would be given to potatoes or beans in cultivation will answer for the "goober."

POINTS ABOUT SUGAR BEET CULTURE.—L. A. *Express:* A. H. Denker, the well-known rancher, received a letter from Frank de Coninck, a San Francisco chemist. The writer says: "I take pleasure in giving you my opinion about the country located between Los Angeles and Santa Monica, through which you drove me, as to the adaptability of the lands for raisng sugar beets. Except a few low and swampy lands the whole country is perfectly adapted to sugar beet-raising and by selecting judiciously the seeds, you may rely upon crops starting with a yield of 15 tons to the acre, which by proper cultivation may be progressively increased up to 25 tons and even more. As to the probable contents of sugar therein, our California climate is the best on earth for developing sugar in vegetables and fruits and you may be confident that the same European seed sown in your lands will always produce beets containing 2, 3 and 4 per cent sugar more than they do in Europe. I would only advise you to be cautious at the start about deep-plowing, which, although desirable and necessary, ought to be gained progressively in order not to expose the results of the first beet crop and to proceed as follows: Before winter sets in, that is to say, as soon as rain sets in, or before, it does not matter, plow your fields only two or three inches more than you do usually, but subsoil the same at about 20 inches and leave them so until the time of sowing is reached. Then plow a second time at four inches deep, more is unnecessary, and have soil three or four inches well, evenly and finely harrowed and pulverized. This in order to allow the air to enter and facilitate germinating and the swelling of the seeds. When your land is well-prepared, there must be no time lost, and the sowing must follow immediately. A good distance between the rows is 18 inches apart and the depth is ½ to 1 inch deep. If your drill doesn't sow and roll the surface at the same time, it is needless to roll the land over after sowing. Remember that uncovered seed does not cause so much damage as seed covered too much. When there is moisture enough in the fields the seed sprouts in eight or ten days, but whatever may be the time the seed needs to germinate. When the plants have grown enough to see distinctly their rows, the first hoeing must be done and the sooner the better. A general good distance for leaving beets in the rows is seven inches apart from each other. Said distance may be lessened or increased according to the composition of lands. This done, horse or hand cultivation must follow, and the oftener lands are hoed the better will be the crop as to quantity and quality; because to develop beets in both weight and sugar, loosened soil, moisture, sun and air are necessary. By plowing your fields 2 or 3 inches deeper every year you will in a few years have the same in perfect shape for cropping a large tonnage to the acre."

A LARGE TRAIN LOADED WITH WALNUTS.—Anaheim *Gazette*: A special train, consisting of 26 boxcars, loaded with English walnuts, left Los Angeles Oct. 22d for the East, via the Santa Fe road. Nearly 20,000 pounds of walnuts were placed in each car, and the estimated value of each carload is about $1600. This is the first train of this character which has been shipped across the continent, and the occasion is an interesting one to shippers of California products. The nuts are the product of the Los Nietos Walnut Association. The entire train was photographed before it started on its transcontinental journey. The cargo will be distributed among the various large cities in the East. The walnut crop of Orange county will amount to $75,000, of which Anaheim and the country tributary produce nearly if not quite one-third.

Napa.

A SUCCESSFUL ORCHARDIST.—Napa *Register:* One of the most successful orchardists in this vicinity is S. M. Tool, whose 70-acre place is half a mile west of Union station. He is just now completing a fruit drying-house, 20x26 feet in size and two stories high. In this building he has placed an American evaporator, the hot air for which is furnished by two furnaces, in which either wood or coal can be used. The capacity of the evaporator is five tons of fruit for every 24 hours. When asked how much fruit he had handled from his own orchard this year, Mr. Tool gave these figures: Bartlett pears, 9600 (50-lb.) boxes; other varieties of pears, 700 (50-lb.) boxes; cherries, 2600 (10-lb.) boxes; plums, 2300 (20-lb.) boxes; peaches, 1700 (25-lb.) boxes; apples, 500 (50-lb.) boxes. He dried 12 tons of pears and 2½ tons of other fruits, peaches, cherries and plums. All this fruit was the product of 50 acres. Most of his fruit Mr. Tool has this year sold in the California market—a good deal of it to canners—and he has received satisfactory prices. He shipped 1000 boxes of plums and the same quantity of cherries east, also his dried fruit, three tons of which were prunes. For his dried pears he got 9 cts. a pound; for his prunes 10 cts. a pound, and for his peaches 12½ cts. He joined his neighbors, the Fishers, in drying 200 tons of prunes (70 tons when dried), for Webber & Co., of Chicago. When asked about shipments east, Mr. Tool said some 15 carloads had this season been forwarded from Union station; that while the charges had been all the traffic would bear, the service was all that could be desired as far east as Ogden, but when the Southern Pacific and Central lines were left it was oftentimes wretched. Mr. Tool's men are already at work pruning, the season for this job, with 16 hands employed, usually lasting with him from Nov. 15th to Jan. 15th.

Orange.

FACTS ABOUT THE VINE DISEASE.—Orange *Post:* A party, consisting of two representatives of the State Viticultural Commission, together with Prof. N. B. Pierce and a Los Angeles *Times* reporter, this week visited ten vineyards in this county, said to be affected by the vine disease, for the purpose of ascertaining the truth of the reports. They examined ten vineyards, all said to be diseased, and found four of them entirely free from the malady. These were the Bennett, W. G. McPherson, Hewes and R. M. Sitton vineyards, all of which are reported in splendid condition. On the other places, more or less evidence of the disease was found, but it is not of the virulent type that has characterized its presence heretofore, and there is good reason to hope that the evil will be eradicated in a few years. Those intending to plant vineyards should investigate for themselves, and, if they conclude to plant, should take the utmost pains to secure cuttings from vines free from the disease.

SPECIAL TRAIN WITH PAMPAS PLUMES.—Anaheim *Gazette:* The Santa Fe will in a few days run a special train loaded with pampas plumes to Chicago. This, as special train service, will be quite as notable in its way as the big trainload of walnuts which was dispatched over the road last week. In walnuts and pampas plumes, Anaheim keeps right along at the head of the procession.

THE PEANUT CROP.—Santa Ana *Blade*: Immediately following the walnut crop, which is being shipped now, will be the peanut crop of the valley. A talk with some of the large raisers reveals the fact that the crop will be about a two-thirds yield, of superior quality. One great advantage of the Santa Ana valley is that the products are so diversified that one crop follows another, yielding a constant revenue to the producers.

Sacramento.

SUGAR-CANE EXPERIMENTS ON SWAMP-LANDS. Sacramento *Bee*: During the last session of Congress, Congressman Caminetti had inserted in the bill making appropriations for the Department of Agriculture for the year ending June 30, 1893, an appropriation of $20,000 for the purpose of making, in the discretion of the secretary of Agriculture, experiments in the planting of sugarcane, and the production of sugar therefrom, on the reclaimed swamp-lands of either the Sacramento or San Joaquin valleys. Similar experiments in Florida have been followed with remarkable success in both the quality and quantity of production. In regard to the matter, Mr. Caminetti received last evening from the Department of Agriculture a letter inclosing the following, addressed to the secretary of the State Board of Agriculture: "By the provisions of an act of Congress making appropriations for the investigations of sugar-producing plants by the Department of Agriculture, the Secretary of Agriculture is empowered, at his discretion, to make investigation of the swamp-lands of California with respect to their fitness for the production of sugarcane. I should like especially to get a statement from you in regard to the extent and character of such lands, especially those lying in the southern part of the State, where the climate would probably be favorable to the growth of sugarcane. I should be happy to receive from you any information which you may have conveniently at hand on this subject, together with such suggestions as you may see fit to make on the subject." Mr. Caminetti believes that the success of the Florida experiments offers our people encouragement, as it tends to demonstrate that success awaits the cultivation of cane sugar in California. "The beet-root sugar industry," says Mr. Caminetti, "is an established fact with us already, and there is no doubt in my mind that the experiment to be inaugurated will fare equally well. The success of the proposed experiment will introduce a new branch of agriculture on the Pacific coast, yielding a ready revenue and adding to the locality suited to its cultivation by the establishment of fixtures, giving employment to many people."

San Bernardino.

A RAISIN-GROWERS' CORPORATION.—Riverside *Press and Horticulturist:* The El Cajon raisin-growers have organized a company to be called the El Cajon Fruit and Raisin Company. It is to be a stock company with a capital equal to $100 per acre for all vineyards represented. The San Diego banks have offered to advance three cents per pound on all raisins after they are put in marketable form, on 30, 60 or 90 days' time, giving the grower the control of the price at which the raisins should be sold during the life of the loan. Fifty-five carloads have already been shipped from the valley.

San Diego.

OTAY WANTS WATER AND GOOD ROADS.—Cor. Julian *Sentinel:* As one drives over the beautiful valleys and mesas he is amazed at the rapid progress of development on all sides; everywhere are evidences of thrift and intelligent efforts in home-building. The lemon and orange take the lead of all fruits in this locality. This section only requires two things to make it blossom into a second paradise—water and good roads. Of the former much is being accomplished by the aid of wells. On all sides we find windmills running and engines pumping. This locality, like many others, has taken its first lesson in the "Wright Irrigation Chart," and has graduated—at the expense of six or seven thousand dollars. They have had enough of "irrigation that don't irrigate," and the most desirable thing that could happen to them at the present would be an opportunity to disorganize, and then procure water in their own way. As for roads, there is not such a thing in the valley. There is a line, or many lines, of travel, designated only by dust that penetrates like quicksilver, and ruts too deep to be called chuck-holes. These lines of travel produce clouds of profanity and dust that hang over the valley like a pall, and if the board of supervisors will be held accountable in the great judgment day, we truly pity them.

LARGE WATERMELON.—Escondido *Advocate*: Mr. and Mrs. G. L. Henderson, of Chula Vista, furnished the chamber with a 113½-pound watermelon last week, and Messrs. Henderson and Stuart promised Manager Young several more about as large, which he will try to keep for the World's Fair.

San Luis Obispo.

CLEAN TREES.—Santa Maria *Times*: The tree season is again at hand, and the tree-man is plentiful. Get clean trees at all hazards; they are the first essential to success. Infested trees mean a failure of your orchard. Do not buy trees of a stranger or an unknown nursery. Do not trust the destiny of your orchard to nurserymen. Learn to inspect trees yourself, and insist on having a commissioner's certificate before receiving any trees. If you know or hear of infested nursery stock coming into your neighborhood, report it.

Santa Cruz.

HOP CULTURE IN PAJARO VALLEY.—Cor. Sacramento *News:* They work the hopyards differently here than elsewhere, the ground being so rich and full of moisture that summer-pruning is necessary. Instead of cutting off the runners above ground, they dig away the earth and cut off the surplus as they do when pruning ordinarily. This is expensive, but must be done. Short stakes are used altogether. Trellises were experimented with this season, but were not a success. A ton to the acre is easily obtained by staking, and a crop is always assured. All of the yards have hopper kilns and Sacramento presses. The Pajaro hopgrowers are progressive, and have grown wealthy in the business, as the county records will show. You could not bond an acre here for less than $500.

Shasta.

ALOHA FRUIT FARM.—Anderson *News:* This farm consists of 525 acres, some 300 or more being cultivated, under the able management of D. G. Hawkins. There is an orchard of 175 acres set out of peach, pear and apricot trees. The trees on 100 acres are one and a half years old, the other 75 acres being planted last winter. The orchard is highly cultivated—not a weed to be seen. The trees all look fine, and the growth they have made this year is surprising. The soil is of a rich, sandy character, and never bakes and gets hard, and will grow anything that is planted in it. Fifteen acres of Egyptian corn was planted this year which, we were told, yielded two tons per acre. This of itself is quite an item. Large yellow pumpkins, squashes and huge watermelons lay scattered all over the ground, which served to carry out the richness of the soil. This is one of the model orchards of Shasta county, and shows what industry and proper cultivation will do. There are many fine orchards in this section, among them being the Ludwick Fruit Farm, Harry Dodson, W. Bernard, Mr. Alexander, D. Hill, Shasta Fruit Co. and several others, which we propose to give due notice. Happy valley has also quite a number. There is no disputing the fact that Shasta county, in a few years, will be one of the best fruit-producing counties in the State, and Anderson the shipping-point for the same.

Sutter.

WHEAT AT LIVE OAKS.—Cor. Yuba City *Farmer*: The last of the wheat crop has been stored. The Farmers' Union in this place has 5000 tons and the Live Oak Warehouse Co. 3000 tons.

Tehama.

ORANGE AND VINE.—Corning *Observer*: The orange trees in bearing about town look well with their large green fruit. The young trees in A. B. Aitken's tract have grown well this summer, and his olive trees could not look better or grow more thrifty. Next summer will see a wonderful transformation in this town and the neighborhood. All the young vineyards and orchards will be bearing luscious fruit, and hundreds more of acres will be planted.

Tulare.

A THREE RIVERS CORNFIELD.—Cor. Visalia *Times*: Ira Blossom has the boss cornfield. The stocks are about four inches in diameter and 20 feet high. The ears are large and hang high. A sample of big corn, fruit, etc., from the hills should be sent to the World's Fair.

GOOD HOG FEED.—*Times*: A farmer of this county, in speaking of the present bad weather for drying grapes, said that raisin grapes are splendid feed for hogs; that when it is found that a field of raisin grapes cannot be cured, it is not a bad idea to get a bunch of pork hogs and let them pick the grapes. The sugar in raisin grapes makes hogs fatten rapidly, and the meat thus produced is the very best. The gentleman also said that half-dried grapes are dangerous to feed to hogs and often killed them. If rains come now there are many fields of raisins in the county that can be harvested by hogs and thus produce a revenue to the owners.

CLEANING MILL CREEK FOR IRRIGATION.—Visalia *Delta*: Twenty-five men from Goshen are engaged in cleaning out the debris in Mill creek above town, which has accumulated since the year 1862. Work was commenced four miles above, and the workmen are now within one mile of the city. The farmers in the Goshen country want all the water they can obtain this winter for irrigation purposes.

A PEAR TREE CURIOSITY.—Lemoore *Leader*: We have been shown several pear trees this season that are curiosities in their way. On the same tree may be found full grown fruit, half grown or second crop, and blossoms for a third crop. One of these trees stands in the grounds back of the Sweetland residence.

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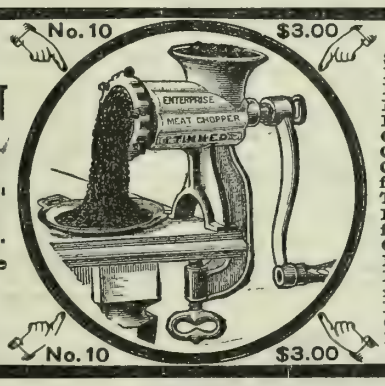

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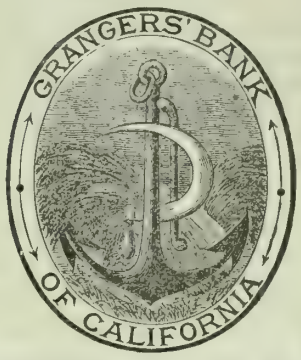

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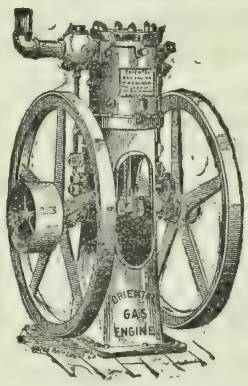

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PATRONS OF HUSBANDRY.

Accumulated Wealth a Dangerous Element.

History and experience has fully shown that private riches and combinations of wealthy men constitute the most oppressive and dangerous element in human society. Efforts to accumulate a reasonable competence are praiseworthy, and legislation which renders such accumulation possible is right and just; but when laws are enacted or a condition of things is permitted to exist whereby the accumulation of such colossal fortunes as are now met with in most of the chief cities of the Union, are made possible, there is certainly something wrong. The power which vast riches gives is sure to engender, in almost any person so favored, an undue degree of selfishness and ambition, dangerous alike to the individual and to the community in which he lives. Doubly dangerous is it when such accumulations are so numerous as to admit of combinations, whereby legislation may be influenced by the use of money, or the influence which money inspires.

What does history teach us in this direction?

When Egypt went down it is claimed that 97 per cent of her wealth was concentrated in about 3 per cent of her population.

It was the accumulation of wealth in a few hands that was the chief instrument in bringing about the fall of Persia and Babylon.

When Rome succumbed to the barbarian hordes of northern Europe, less than 2000 individuals owned more than 90 per cent of her entire wealth.

Greece, with more tenacity of endurance, held her power intact until over 95 per cent of her riches was absorbed by less than two per cent of her population, and then she too submitted to the inevitable fate of misdirected wealth.

Patrick Henry once said:—"We can only judge the future by the past." We have seen the past of other nations. Let us look for a moment at the present and future of our own country.

In 1850 capitalists owned 37 per cent of the nation's wealth. In 1870 they owned 63 per cent—a proportionate gain of 26 per cent in 20 years.

Again, statistics show that at the present time 31,000 of our citizens own fully one-half of all the accumulated wealth of the country—and that too without including any capitalist who is worth less $500,000. It is safe to say that all the wealth producers of the country, combined, do not own much, if any, more than one-tenth of the wealth which they have created.

For the past 25 years the accumulation of property in the hands of capitalists in this country has been making rapid progress. Ex-Senator Ingalls recently made a speech in the Senate in which he gave some remarkable statistics which have never been contradicted. He stated that there were 200 people in this country who were worth over 20 millions each; 400 others who passed for 10 to 20 millions each; and 1000, each of whom could count from 5 to 10 millions.

The most alarming feature of this property drift is the fact shown that nearly all the current accumulation of our national wealth is passing into the hands of capitalists. According to the census of 1890, the increase of wealth from 1880 to 1890 was 22 millions of dollars. The census also shows that nearly all of this increase has gone into the hands of capitalists, and that the property in the hands of farmers, artisans and the laboring classes generally differs but very little from the report of 1880. It thus appears that the United States is rapidly following in the steps of the nations which have been driven into obscurity mainly through undue accumulation in a few hands. Similar but less disastrous results have also been witnessed in more modern times. We might instance the Watt Tyler insurrection in England in 1381, in which the working people secured important concessions, but only after much anarchy and bloodshed. France, even in the present century, has passed through similar scenes.

NO CAUSE FOR ALARM IN THIS COUNTRY.

Whatever the history of the past reveals, there is no danger of a repetiton in the United States of the excesses and bloodshed of former times. There are some, it is true, demagogues in spirit, who prophecy an early enactment in this country of scenes similar to those to which allusion has been made. But such people forget that times and methods have greatly changed during the present century. They, moreover, mistake and miscalculate the conservative power and influence of the present

GREAT FARMERS' MOVEMENT.

There are no demagogues on the farm. Such people are found only in crowded cities, and among those who run political machines for personal benefit and not for the good of the people. In this farmers' movement the Grange is the leading and controlling factor. Since the establishment of this organization, some 25 years ago, the farmers within and without the Grange have been learning many valuable lessons of business and policy. They have learned also much in regard to husbandry. The Grange has been a great school into which demagogism has never found entrance. This movement is essentially educational—in business, in politics and from a social point of view as well. Among other things, the farmers have obtained a very good idea of their power and how to use it, in a conservative way. They have learned that in numbers they can rule the nation—with such power comes, naturally, conservatism. They have already won many victories in counties, States and also in our national halls of legislation.

Among other things, they have learned that the great rural population of the country, as well as the laboring people in general, have been made to bear an undue share of the burdens of society; but they propose to keep their heads cool, and to go about a better adjustment of things political in a quiet and strictly conservative manner. There is no "jingo" in the Grange or among farmers generally.

The inherent good sense of the American farmer will guide him aright in the selection of leaders and measures. With him the petty issues of the professed politicians have little significance. In carrying out his reforms, no man's rights will be invaded. The silent ballot will take the place of the deadly bullet. He is now looking around for the best methods of reform, by which the *people* may come in possession of their rights, which have been invaded by political demagogues and overgrown monopolists. He is seeking for the best methods of doing away with the giant monopolies of railroads, telegraphs, telephones, express services and all trust combinations. He has also entered his solemn protest against bossism, corruption at the ballot-box and in our legislative halls, and against all class legislation. Knowing well his power, he can afford and is willing to bide his time and move upon his enemies by gradual approaches—such as will not breed popular clamor or seriously disturb the present foundations of society. He has already issued his protest against the present methods of centralization, and his determination to restore a proper and healthy industrial equilibrium. In this last he joins hands with the artisan, protesting, however, against all violence, and pointing out the way to victory through the ballot-box and a strict regard for the rights of property and property-owners. The teachings of the Grange to itself and to all outside industries are to be cautious and wise in demands, to the end that victory shall be sure and without material disturbance to the industries and general conservation of society.

The "Kid" Grange.

With an expression of profound disgust, a fellow patron told us the other day: "We have nothing but a kid Grange any more. I have not been there much this summer."

It seems that some one had the tact to see that the way to revive Grange interest in that community was to enlist the young people and then make it lively enough to attract them. Of course, those who interested themselves in the young people were able to influence votes, and horrible to be said, a lady was elected Worthy Master. Perhaps our friend had only thought of it as a misfortune that the judgment and wishes of older members should be overruled by those upon whom they had been accustomed to look as children.

We hope our friend and those of similar mind will take a sober second thought, which will show them that we must depend upon the young for the future; that the teachings of the Grange are calculated to develop the highest standard of citizenship; that their presence and a regard for their welfare should impose upon every patron a double obligation of loyalty to the Order, both for the good it may do directly and for the sake of its influence in the training of those upon whom the future of the cause depends. By all means be the more faithful in the kid Granges, and be sure that every session has something to instruct and something to entertain them. We have no other way to live over again the happy days of youth save in sharing the pleasures of our children.

EDUCATION ON THE FARM.

The idea prevails that education is wasted on the farm. This proceeds from the idea that agriculture is a routine business depending principally upon the muscle. So soon as the farmer begins to study how to improve methods or results he finds use for mental training, and there is very little use for the farmer who never tries to improve. The more education the better for the farmer, his family and the community.

The model farmer loves nature well enough to search for her secrets. He loves profit well enough to study the laws of trade. He loves his fellowman well enough to live for the good of community.

Get more Grange in your members and you will get more members in your Grange. This was a leading thought impressed by Overseer Roache in his Grange canvass of 1891 at Tulare. It is one that will bear frequent repetition. If your Grange is dull, remember that an ancient city was kept very clean when every person swept in front of his own door, and ask yourself what you are there for. Do you come to be entertained? Probably others do the same. Have something prepared to entertain them. Do you come to learn? Keep a note book in your pocket every day in the week and when you see or hear or think of anything likely to interest others, note it down. Present it as clearly as you can at the Grange, and others will follow your example, and there will be something learned at the Grange.

People will not come many times unless they feel that have been paid for coming.

Perhaps you are one of those who cannot talk, and instead of going into the Grange, have been sitting on a nail keg in front of the store, talking pretty good, hard sense to three or four men of your kind who are waiting to go home, until the women folks come out of the Grange.

If you cannot talk without your nail keg take it up to the Grange. At least manage some way to break yourself of the idea that you cannot talk to people sitting quietly in a room, where they came on purpose to hear, as well as to a chance group in front of a store.

The master, lecturer and every other Grange worker should take it upon themselves to make it so easy to talk in the Grange that they will draw out the last idea that lies hidden away in the northeast cor- of the most bashful brain in the house, before they are done with a subject. Send every member home with the feeling that "we have had a good Grange" and you are on the high road to prosperity. Let members begin to say, "they ought to do this" or "they had no business to do that." So soon as the interests of an organization fail to appeal personally to its members and they shuffle the responsibility upon the shoulders of the few, it begins to row against the tide.

DISCUSS FARM SUBJECTS.

When you invite some member of a neighboring Grange to address you, it would be quite as well for him to present some important question in agriculture to be followed by general discussion as to speak as usual upon "The Good of the Order."

The Secretary's Column.

By A. T. Dewey, Secretary State Grange of California.

THE *Farmers' Friend*, Penn., makes the following hits:

"On election day the fellow who can't write and the one who can will be on a perfect equality. Each will have to make his mark.

"Isn't it funny that those who have the least at stake in the result of the election are the most concerned and make the most noise.

"The duty of every American voter is to weigh all the evidence for and against the various propositions, and then vote as the best interests of the people demand. Charge and countercharge of corruption and gross personalities should not be allowed to influence a single vote. On facts, not what passes for facts, should your decision be based."

The above, from the *Farmers' Friend* of Pennsylvania, also portrays the true situation in California. If the farmers, industrial and other well-meaning people do not unitedly act upon such truth, how can we expect to have aught else than the disgraceful scenes repeated in our coming legislature that have characterized the last (Republican) and the previous (Democratic) legislatures. Bosses and boodlers have run rampant in California, and our legislatures have become not only a disgrace to the members thereof, but to the whole State.

It is hoped that Patrons, farmers and industrialists will this year "vote as they think," and for no man for office who is not in favor of the resolutions repeatedly adopted by the State Grange, viz.: That U. S. Senators be elected by the direct vote of the people; that an Enabling Act be passed by the legislature for the organization of Farmers' Mutual Fire Insurance Companies; that the payment of delinquent taxes from individuals and corporations be enforced, no matter how wealthy and powerful they may be; that the time for the payment of the Central and Union Pacific railroad bonds be not extended.

Let every voter leave no stone unturned in bringing about the reforms that are so well known to be needed in our State government and legislative departments.

THE present presidential campaign has been singularly free from excitement, and, so far as observation goes, free from attempts to corrupt voters. This must be highly gratifying to every patriotic citizen. But the elimination of these elements, so common in battles for the ascendency, from the present contest, should not be regarded as indicative of a lack of earnestness on the part of active party workers. Indeed, this apparent apathy is ominous, foreboding disaster where disaster is least anticipated, and where it will be most hurtful to the farmers of the State. From rostrum and press come appeals to the voters to sacrifice everything for the success of a favorite presidential candidate. Don't do it, because, if you do, you will realize, when too late, that you have been duped. We do not wish to detract one iota from the importance of the presidential election, but we do want you to keep in mind that the President is merely an executive officer, who, in the language of the Federal Constitution, "Shall take care that the laws be faithfully executed." The disabilities which farmers complain of can only be removed by the enactment of new laws, and new laws, if enacted at all, must be enacted by representatives elected by the people. The President cannot make laws, nor dare he refuse to execute one placed upon the statute books in a constitutional manner.

A President is not the only thing to be looked after in this contest, and it will be very unwise for us to permit that one subject to monopolize our attention on election day. Members of the National Congress—lawmakers—are to be elected, and if you want good, wholesome laws enacted, we must send good, honest, intelligent men to make them.

There are also State issues of transcendent importance involved in this struggle, and it is to these that we desire to call attention more particularly.

"Farmers, stand by those who stood by you."

A LOVELY REPORT TO THE STATE GRANGE.

Ceres' report having been called for, we furnish it to RURAL readers in advance of publication in the Journal of Proceedings, as follows:

"Ceres brings glad tidings of peace, prosperity and health.

"While other nations are suffering from famine and disease, we are blessed with everything that makes life desirable.

"On my return home from the State Grange one year ago, I tried to ascertain what my duties in this capacity were. I looked over Ceres' report for the year past, and I exclaimed she has done her work so well that there is nothing left for me to do; but, in looking over my Greek history, I learned that Ceres had a daughter Prosepine, who ran away with a god named Pluto, and it occurred to me that I had better look after Flora and Pomona.

"Flora, I found courting with Cupid. I entreated her to dismiss him at once, and referred her to his past history as being an idle, capricious fellow. 'Indeed,' she replied, 'he is nothing of the kind; on the contrary, he is without a fault,' and advised me to look after Pomona, who was strolling through the vineyard with drunken Bacchus. I reprimanded her for keeping company with an intemperate, hilarious fellow.

"'You are mistaken in the man,' she exclaimed. 'He is not the one whose likeness adorns wine bottles and barrels, with a goblet of wine in his hand; his quarrels are sometimes riotous, but he first taught the art of navigation and the manner of tilling the soil, built cities, instituted wise laws, civilized savage nations and taught them to worship the gods; in place of the wine cup, he holds in his hand a javelin encircled with ivy and vine leaves.'

"Alas! Worthy Master, I fear these misguided young goddesses have partaken of the fruit of the Elysian fields and their return is impossible. I await instructions from you." DEE D. HULL.

FOR CONCORD.

Worthy Master Davis and wife will start on the evening of the 8th (or morning of the 9th) to be on hand in good season for the Annual Session of the National Grange at Concord, N. H. He has already begun preparation for his annual report, and the introduction of business delegated by the State Grange to our popular representatives to the National Council.

PETALUMA SPEAKS FIRST.

Petaluma asks for the next session, and Secretary G. D. Heald writes, Oct. 24th, as follows: "At a regular meeting of Petaluma Grange, held Oct. 22d, it was decided unanimously to ask that the California State Grange do us the favor of holding the next annual meeting in Petaluma. There was present at our meeting a large delegation from Two Rock Grange, and the matter was freely discussed, all being decidedly in favor of the next meeting of the State Grange being held here. When the vote was taken it was unanimous, and the secretary was instructed to so inform the worthy master and secretary of the State Grange and urge them to use their influence to have the next meeting appointed for Petaluma."

We can think of no place where the interests of the Order would be better served than by accepting the above invitation. There seems no reason why attendants should not be well pleased and accommodated by meeting at Petaluma, one of the thrifty and important growing towns of central California. There are six subordinate Granges in Sonoma county, all of which are within 20 miles of Petaluma, which can be conveniently reached by Patrons with their own conveyances. Petaluma is a young Grange with good prospects, Two Rock, its neighbor, is one of the most active and successful Granges on this coast. We expect to learn that the Pomona and all other Granges in the county will join hands heartily with Petaluma, their youngest sister, in paying the State Grange the honor of a reasonably delightful reception in 1893.

THE PROCEEDINGS of the late session of the State Grange are now in the hands of the printer and expected to be issued in the early part of December. Notwithstanding the efforts of the secretary to conform to the desire of the Executive Committee to make them as condensed as practicable, they will, as heretofore, make a large volume.

THE SECRETARY wishes to acknowledge the faithful assistance of Bros. E. B. Balis, Henry Raap and Geo. Ohleyer Jr. at the late session of the State Grange.

INFORMATION FOR SETTLERS!

The members of the Kern County Land Company have a national reputation for wealth, business and financial ability. These facts set the matter of reliability at rest. The company's capital stock is $10,000,000.

They have 400,000 acres of arable, irrigable lands upon which the sun shines almost constantly; and their enormous irrigation system renders them independent of the annual rainfall.

A clear title; rotation, variety and certainty of crops; easy terms; availability to persons in moderate circumstances; ground ready for the plow—no stones nor thistles; good society; schools; churches, etc., are a few notable attractions of this region of country.

Kern is the largest county in the San Joaquin Valley. It has the finest climate for curing and drying fruits, etc.

The 400,000-acre territory of the Kern County Land Company is the pick of the county.

Its area is 5,184,000 acres.

Has the largest irrigation system in America.

The home of the peach, French prune, pear and raisin grape.

Planting and harvesting can be carried on every month in the year.

No rocks, hills or stumps on the land.

A failure of crops is unknown on irrigated lands.

Kern county fruits take the first prize at the State Fair.

Land can be made to pay for itself in less than three years.

Grows more alfalfa than any other county in California.

The advantages of good soil and plenty of sun, which occur in the Kern Valley, would have been of little avail but for the third and all-important one of an abundance of water from never-failing sources.

Through 300 miles of main canals, and 1,100 miles of laterals, the great Kern river furnishes enough moisture to slake the thirst of the 400,000 acres already referred to.

Drought is out of the question.

The system has been constructed in the most careful and scientific manner. Some of the canals are 125 feet wide and six feet deep.

FOR FURTHER PARTICULARS ADDRESS

KERN COUNTY LAND COMPANY.

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Bakersfield, - - - California.

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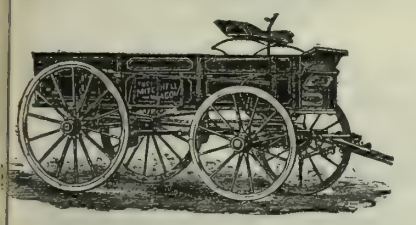

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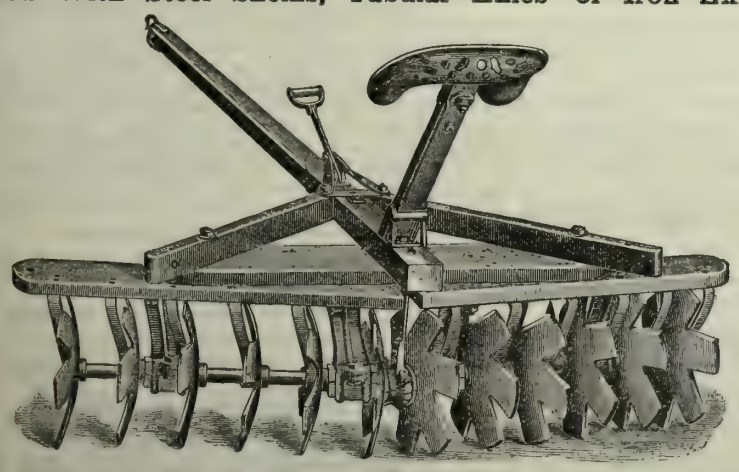

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Southeast Corner Main and Market Streets, San Francisco, Cal.

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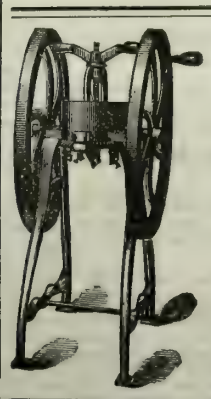

Mann's Green Bone Cutter

FOR POULTRY FOOD.

Patented June 15, 1886; August 20, 1889. Canada Patent, June 12, 1890.

WE WARRANT this machine to cut Dry or Green Bones, meat, gristle and all, by Hand Power, without clog or difficulty, or MONEY REFUNDED.

GREEN CUT BONE WILL DOUBLE THE NUMBER OF EGGS, will make them 25 per cent more fertile, and increase the vigor of the whole flock. COST OF FEEDING MATERIALLY LESSENED.

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Sealing Jelly Jars.

Strain jelly into jelly jars which have been thoroughly washed in soap and water and have been standing in boiling water for half an hour. When the jelly is cool pour over it a small quantity of melted paraffine, let it harden; then pour more for as the first hardens it may crack or shrink from the sides and leave spaces where ferments may enter. In other words, the jars need to be made air-tight—not that the air does mischief, but because it contains the organisms which on entering the jelly cause by their growth the changes known as "souring." The object is to exclude all micro-organisms.

This may be done in other ways than by the use of paraffine. Cut a piece of white paper just large enough to cover the jelly; soak it in alcohol for five minutes, then fit it to the tumbler and pack over it a wad of sterilized cotton batting, letting it fill the mouth of the jar or tumbler like a stopper. This is an effectual means of preserving all kinds of fruit, as micro-organisms cannot go through the batting. Care must be taken, however, to have it properly sterilized. This may easily be accomplished by making the wads the required shape and size, and putting them on a tin plate in a hot oven for half an hour. When putting the cotton into jars be careful not to touch the underside of the wad or allow it to touch anything until it is placed in the jar; each may be wound with a piece of cloth to make it look neat, or a piece of paper may be tied over it.—Albany Argus.

PRESERVING POTATOES—Prof. Schribaux of the National College of Agriculture of France has recently devised a very simple, cheap and successful method by which he has been able to preserve potatoes in edible condition for over a year and a half. This process has been adopted by the French government to preserve potatoes for the army. The method of preservation consists of plunging the tubers, before storing them away, for ten hours in a two-per-cent solution of commercial sulphuric acid in water—two parts of acid to one hundred parts of water. The acid penetrates the eyes to a depth of about one-fortieth of an inch (two millimeters), which serves to destroy their sprouting power; it does not have any appreciable effect on the skin of the potatoes. After remaining in the liquid ten hours, the tubers must be thoroughly dried before storing it away. The same liquid may be used any number of times with equally good results.

MUTTON BROTH.—Take a shoulder or neck of mutton, cut into small pieces, wash and put into the soup-pot. When it comes to a boil skim it carefully, then boil gently two hours. To four pounds of meat add four quarts of water and half a cup of rice. Do not put in the rice until the meat has boiled two hours, then add rice, and season with pepper, salt and half an onion, boil two hours longer and serve.

OYSTER SAUCE.—Take two quarts of oysters, wash them out of the liquor with the hands to get out all the grit; let the liquor stand and settle, then drain it into a saucepan, add a little mace, and set it to boil. Braid two spoonfuls of flour into half a pound of butter; stir this into the boiling liquor and let it again boil up; then put in the oysters and give it one boil. Serve it in an oyster dish.

FRICASSEE OF POTATOES.—Cut cold boiled potatoes into small squares, and put them in a basin with milk, pepper and salt, allowing half a pint of milk to a dozen potatoes. Set the basin into another of hot water, and when it comes to a boil, add a teaspoonful of butter and set on the stove, and let it boil up once, then serve.

BAKED APPLE CUSTARD.—Take three quarts of stewed apples and mash them with a spoon through a colander; add one pound of sugar, four or six eggs, one teacupful of melted butter, two lemons, the juice and pulp. Mix these well. Have the pie pans filled with pastry and put the custard in. Bake slowly.

TO BOIL RICE.—Wash clean two cupfuls of rice; put it into a pot with two quarts of water, and boil it quite tender; turn it into a colander to drain, but do not stir it. Let it stand before the fire to dry about ten minutes. Every kernel of rice will be separate, dry and look very white.

CORN CAKE.—Three teacups of Indian meal, one teaspoonful of salt, one tablespoonful of sugar, one of butter; wet this with boiling water, and then beat in one egg; spread half an inch deep on buttered tin sheets, and bake brown in a quick oven.

THE CARE OF THE EYES.—Not long ago an advertisement was read in which an optician promised to examine the eyes of all who came to him *free of charge*, and to provide glasses for the same at moderate rates. The object of this free examination was evidently to provide customers for the sale of the glasses and spectacles. The advertiser may have been a skilled oculist, and perfectly able to provide for the needs of his patients, but is it worth while to make the experiment? Any one who has ever been threatened with blindness will protest against running any risk in the treatment of the eyes. Sight is the most blessed of all of the five physical senses. Blindness, or the thought of blindness, seems like a living death, and only those who have experienced the fear can understand it. Do not take any risks with your sight. Do not experiment or allow others to experiment with your eyes if they are weak or failing. Economy of money at the risk of losing your eyesight is foolishness. The eye is one of the most delicate of organs, and easily ruined and the sight destroyed. There is no excuse for negligence in the matter; there is no use to try home or cheap remedies. If your sight is failing, if your eyes are out of order, hesitate not for a moment, but consult a competent oculist at once, and seek none but the best. Sight is too valuable and precious to be trifled with. Those who have suffered will tell you the misery entailed. There are hospitals where the eyes are treated free in many cities by the best oculists, so it is not a question of money. And the warning can not be repeated too often—do not trifle with your eyesight under any consideration.—Harper's Bazar.

The Old Man's Reticence.

Ethel—O, Ernest, have you seen father?

Ernest—Yes; I have just come from his office.

Ethel—And did he give his consent?

Ernest—I couldn't quite make out. He was so noncommittal.

Ethel—Well, what did he say?

Ernest—He didn't say anything at all.

Ethel—Didn't you ask him?

Ernest—I said: "Sir, I wish to marry your daughter. Have I your consent?" and he turned and looked at me a minute, then he began to turn red in the face, and then he grabbed me and threw me over the balusters, and before I could ask him again he slammed his door and locked it.

Irrigation.

The question whether it pays to irrigate our lands has passed beyond the experimental stage, and it is admitted that it is the only system of husbandry that will pay. Mammoth enterprises have been inaugurated to bring water from our mountain streams to the great inland valleys for irrigating large tracts. Until a general system of irrigation has been completed, our vegetable gardens, vineyards, orchards and upland must use the pump for raising water, with either the windmill or the gas or gasoline engine for cheap motor-power. This demand has engaged the attention of our best mechanics and inventors to build a pump that would be durable and effective in raising large quantities of water.

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The Torrent Centrifugal pumps are the best known, and in more general use than any centrifugal pump in this State.

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"Orange Culture in California" was written by Thos A. Garey of Los Angeles, after many years of practical experience and observation in the growth of the fruit. It is a well-printed hand-book of 227 pages, and treats of nursery practice, planting of orange orchards, cultivation and irrigation, pruning, estimates of cost of plantations, best varieties, etc.

The book is sent post-paid at the reduced price of 75 cents per copy, in cloth binding. Address DEWEY PUBLISHING CO., Publishers "Pacific Rural Press," 220 Market St, San Francisco.

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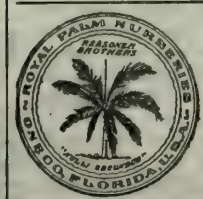

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Seeds, Plants, Etc., Continued on Page 395.

How Shellac is Made.

What makes your derby stiff? Shellac. What is sealing-wax? Shellac principally. What is shellac? It is the prodnct of a composite mass that is found on the young twigs and branches of the butea, croton and other trees that grow in the countries of the East. Shellac is consumed in great quantities all over the world in commerce and in arts. It is kept in the shops and large warehouses in large hogsheads. It varies in color and thinness and is transparent. It comes in broken pieces of irregular sizes, some of it being very thin.

The crude mass from which shellac is obtained is produced by a small insect (Cocars lacca) resembling somewhat the cochineal. The insect is hatched, matures and dies on these twigs. A number of female insects, with a few males, fasten themselves upon the tender twig and puncture the bark. A tenacious fluid exudes and envelops them. The insects feed upon the juice, derive their nourishment from it and deposit their eggs within it. The males only have wings, and as soon as the females begin to die a few females and the males go to other trees. After the females that remain in this gelatinous mass have deposited their eggs and have died, the eggs hatch out the young insects. The young burrow through the dead bodies of their mothers to the surface of the mass and then cover the neighboring branches. The eggs are deposited close to the bark, so that they are protected by their mother's bodies and by the mass that has exuded and enveloped the female insects. Finally the young twigs are completely covered with a thick, hard, resinous substance. When the females die the frames of their bodies form little cells like those of a honeycomb. As a result of decomposition there are the elements of a beautiful purple dye.

When these twigs have been sufficiently loaded with the resinous mass, the natives of the countries in which these trees grow, strip the trees of these twigs and break them into small sticks. These pieces are called sticklac. These broken twigs are immersed in hot water and the hot, resinous substance is kneaded by the hands to press out the purple dyestuff. After the gelatinous mass has become sufficiently soft it is taken out and dried. It is then put into coarse cloth bags and suspended close to the charcoal fires. Presently the mass begins to melt. By twisting the bags the mass is squeezed out, dropping onto flat sticks placed for that purpose. As it is dropping from the bags it hardly strikes the sticks before it is cooled by the air. It forms into thin cakes as it is deposited on these sticks or narrow, flat boards and dries. These cakes or sheets are called shellac. As the melted mass is dropping from the cloth bags, small drops unavoidably fall to the ground and dry in litttle, round bodies called cottonlac. Other and larger pieces that also fall to the ground nd dry are called platelac.—Boston Globe.

Finishing Oak.

The most fashionable method of finishing woodwork in the natural color of wood, according to A. P. Daire, is to use what is known as "quartered oak" for the panels. This is oak cut in a certain way so as to show the grain in the most variegated and attractive manner. This is then finished in either the antique or natural method. The finish of what is known as "antique oak" is produced in the following manner: The job should be made of hard wood, with as full an open grain as possible to secure a fine effect. Sandpaper this and clean off. Then prepare a priming made of 1 part japan, 1 part raw linseed oil and 1 part rubbing varnish. Drop into ½-gallon of the liquid 1 pound of commercial cornstarch, such as is used for culinary purposes. Next take some good, dry, burnt Turkish umber, and add about ¼-pound of this to the starch. Apply to the job a good flowing coat of this priming. Let stand until it is set and has soaked well into the grain, and then take a broad putty knife and slick it into the grain, working the knife crosswise of the grain. Again let stand a little while, and then wipe with rags; especially, clean out all the corners and get the job into as good condition as possible as regards having the grain well-filled.

Upon the completion of the operation above-described, it will be found that the open grain has absorbed the starch and umber, and that these portions now show the dark shade suggestive of age, while all the rest of the surface is also slightly darkened.

When again perfectly dry, give one coat of rubbing varnish, prepared by adding to it ½-pound of starch to each gallon of varnish. This coat should be flowed on freely as a medium coat of rubbing varnish, but be careful not to have runs or sags. This ought to completely fill the wood, after which proceed to varnish, rub and finish the job in the usual manner. To produce a natural oak finish, follow precisely the same course as above-described, with the single exception of omitting the umber. This will leave the wood in its natural color.

Polishing Wood with Charcoal.

A method of polishing wood with charcoal, now much employed by French cabinetmakers, is described in a Parisian technical journal. In this cosmopoliton city may be seen many articles of furniture of a beautiful dead-black color, with sharp, clean-cut edges and smooth surfaces, the wood of which appears to have the density of ebony. As against furniture rendered black by paint or varnish, the difference is so sensible that the great margin of price value between the two kinds of work explains itself. The operations are much longer and more minute in the case of charcoal-polishing, which respects every detail of carving, while paint and varnish would clog up the holes and widen the ridges. In the first process, only carefully selected woods are employed, of a close and compact grain; they are covered with a coat of camphor dissolved in water, and afterward with another, composed chiefly of sulphate of iron and nutgall. These two compositions, in blending, penetrate the wood giving it an indelible tinge, and at the same time rendering it impervious to the attack of insects. When sufficiently dry the surface of the wood is rubbed at first with a hard brush of couch grass and then with charcoal of substances as light and pliable as possible. Any hard grains remaining in the charcoal scratches the surface instead of rendering it perfectly smooth. The flat parts are then rubbed with natural stick charcoal, and the indented portions and crevices with charcoal powder. Alternately with the charcoal, the workman also rubs the furniture with flannel, soaked in linseed oil, and essence of turpentine. Repeated pouncings cause the charcoal, powder and oil to penetrate into the wood, giving the furniture a beautiful color and also a perfect polish without any of the flaws of ordinary varnish.

It has been discovered that the first patent granted to an inventor in America, was to an Englishman named Joseph Jenks. An act was, it appears, passed in the year 1646 by the General Court of Massachusetts Bay according to this person "the exclusive right of making and selling his improved scythe for the term of fourteen years." The decree was, therefore, promulgated exactly 26 years after the "Mayflower" had landed its burden at Plymouth, in the State which was afterward destined to witness the commencement of the American War of Independence. The improvement protected by Mr. Jenks' letters-patent is stated to have consisted in changing the short, thick, straight English scythe into the longer, thinner, curved instrument with stiffened back.

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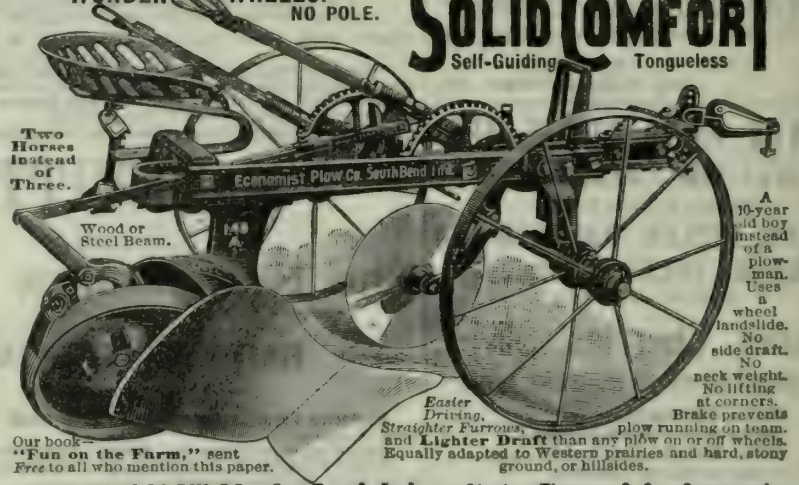

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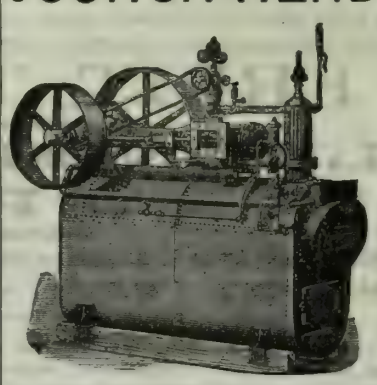

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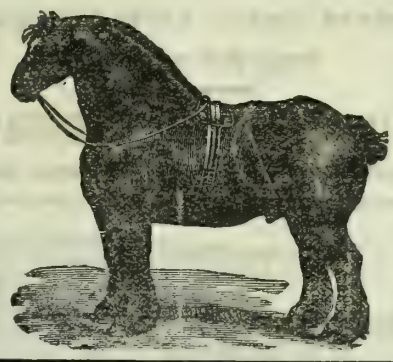

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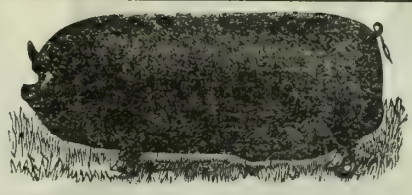

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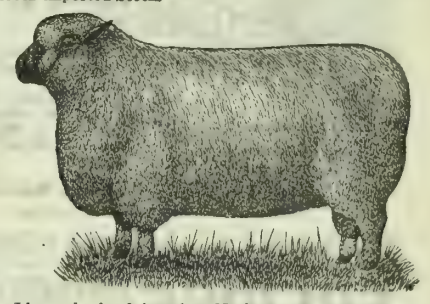

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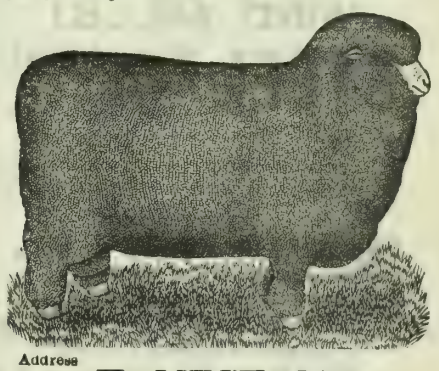

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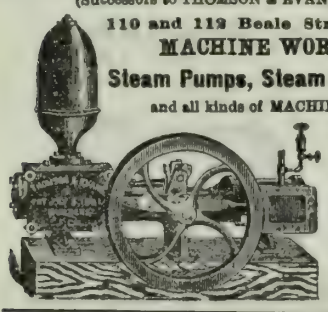

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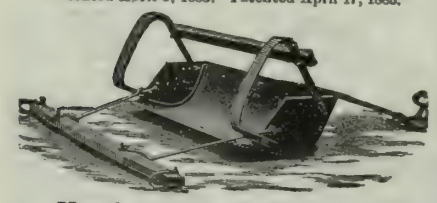

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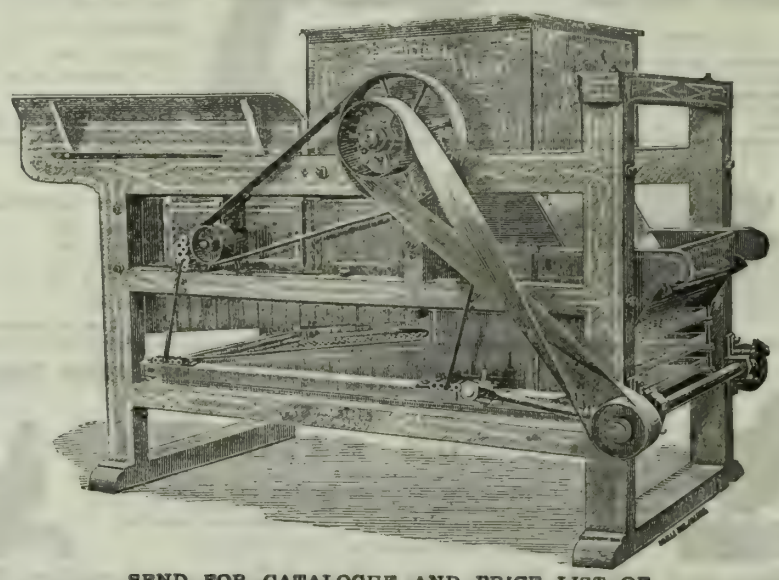

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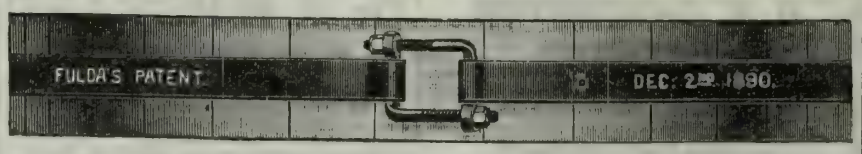

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S. F. Market Report

Market Review.

SAN FRANCISCO, Nov. 2, 1892.

The local money market, the past week, has been oderately active for the season of the year. The ll from the country for crop purposes is about over, d as remittances are increasing, the available surus in bank shows a fair gain. Notwithstanding the serve is larger, yet banks pursue a conservative licy, and prefer to place money on short time or ll. Long paper is closely scrutinized. This policy, is thought, will continue to govern until we have rly entered on the new year. There are increasg signs of growing confidence, and as this feeling larges, money will become more active and better es of interest obtain. An active money market d higher interest are the forerunners of more osperous times and an era of active speculation. e East and Europe are reporting more active oney markets and a steady enlargement in speculan, with a steady appreciation in rates of interest. The wheat markets of the world have been under ong bear influences, yet the signs of the times nt to much better prices in the near future. First, d probably the more important, is the steady inase of confidence at the East and in Europe, ich is accepted as an evidence that we have ened an era of speculation and greater prosperity, t will naturally bring about a bull campaign in eat, owing to its favorable statistical position. It no longer denied that the crop of the world, this r, is over 60,000,000 bushels short of the outturn in l, while the consumption per capita has been gely increased by reason of its cheapness and the atively higher prices for other leading articles of d. While the crop was smaller, the movements to rket have been larger, and to this free marketing to be partly attributed the present low prices in supply and demand markets. The low prices e been taken advantage of by speculators, and sequently the large proportion of the cereal sold been bought for holding. The free movements wheat have also made the bears bolder, who, it is d, have largely oversold in the Chicago, New York Liverpool markets. These bears will probably find it hard work to fill, except at a heavy loss.

he following comparison of average prices at New k, for the month of September, shows the strength he bear movement in cereals:

Articles.	Prices. 1892.	1891.
n (bush.)	$0 55	$0 66
s (bush.)	0 40	0 43
(bush.)	0 70	0 94
eat (bush.)	0 80	1 05

he local wheat market the past week held firm withstanding every pressure possible was brought ear to break prices. From all we can learn, rly all the exposed wheat (that on the banks of river) has been either marketed or else waresed. It was this wheat which kept the market uyers' favor. With this out of the way, and with degree of firmness on the part of holders, both pers and millers will have to pay more money wheat before the close of the year, particularly so en it is understood that there is quite a short interin futures on Call. It is said that the flourmill pool rust has worked in the interest of buyers by lessenthe number of competitive buyers. It is rumored t the pool or trust will make itself felt still more n after election, by having one or more of the ls shut down. So far, it is asserted, the pool has been able to advance the market price of flour, s to net big profits, owing to strong selling oppon by the Starr Milling Co. and also by the mills Oregon and Washington.

arley, the past week, has held strong at steadily ancing prices. The improvement in the market ears to be well grounded and points to still better es. The consumption for feed has been simply rmous, which has reduced the surplus to a still ater extent than had been estimated, while the pping demand has been freer than for several rs past. The short crop at the East and only a yield abroad favored shippers of more choice des of bright, suitable for malsters. The low rates eight hence have also been in shippers' favor. reported that there is a large short interest on

ats have ruled firm throughout the week, with an ance established in seed varieties. Receipts have en off, which is accepted as confirming the gen- impression among the better informed that the p up north was short. The demand has been ly free, particularly for the more choice grades. said that there has been more liberal feeding of so far in this season than during the like time several years past.

orn has ruled weak throughout the week. The ision of the Mexican Government to extend the e for admitting corn free of duty may possibly te a slightly better export demand for that coun- but as yet there is nothing to warrant asserting there is, at present, such a demand. From our hanges we judge that the Mexican demand is bemet largely, if not entirely, by Texas, and unless es advance at the East, the movement from this t will be confined to the usual demand points.

he market for ground feed has ruled weak for n under a falling-off in the demand and free offer-, but for middlings the market has held fairly dy, owing to moderate receipts. Feedmeal and ked corn have been weak and dull, but both roll ground barley have met with a good demand at er prices, in sympathy with the market for the n. The starting of the plows and cultivators in more favored sections of the State has stimulated demand for roll barley. Hay has sold higher. eipts have been barely enough to meet current irements, while the demand in some localities is increasing. It is said that owing to improving pasture in the more favorable localities, there is not so much feeding of hay to dairy cows and other neat cattle, sheep and range stock in general. While this may be the case in certain localities, it is probably more than offset by an increased demand from other sections.

As indicated in our review last week, the butter market has gone from bad to worse, with a demoralized feeling at the close. The oversupply of pickled and solid-packed has been and is still a menace to the market, and to which must now be added improving pastures in the more favored dairy sections. The improved pasture, it is said, is being favorably felt by an increased flow of richer milk. With larger milking a larger output of butter follows, and as this butter, as has always been the case, has to be marketed as soon as possible, it comes in competition with other kinds. Large holders are pursuing an offish policy. Cheese has not shown any material change the past week. The demand and supply have kept fairly eq ial. With small receipts of Eastern and light shipments on the way, eggs have ruled very strong, with an advance established along the line. The receipts of Californian are very light. The higher prices have restricted the consumption. With better green feed and favorable weather, the receipts of Californian should increase.

The varieties of garden truck are being confined to the usual autumn kinds. Tomatoes have met with a slow demand owing to poor keeping quality and canners not buying. The market quotations for all varieties are more or less nominal.

Onions have exhibited a fair degree of firmness, with choice, good-keepers given preference by buyers. The receipts of potatoes have continued free, but the market has held fairly firm for the better grades suitable for shipping or keeping. Poor keepers, wormy, diseased or otherwise inferior potatoes, rule in buyer's favor, and for which quotations are largely nominal.

Wools continue to come in freely, but the market does not exhibit any material change in value, being still in favor of buyers. This abnormal condition is a source of surprise to the many who closely watch the Eastern and English markets, both of which are fairly active Probably the best solution of the present unfavorably low range of values is to be found in the lower prices in the Boston market for Ohio and Michigan wools, which are tabulated as follows:

	Aug., '90. Cts. ⅌ lb.	Sept., '92. Cts. ⅌ lb.
Ohio and Penn. XX and above	32½@33	28@29
Ohio X and above	32 @32½	27@28
Ohio No. 1	37 @37½	32@33
Michigan X	28 @29½	25@25½
Michigan No. 1	36 @36½	31@32
Ohio, delaine	35 @36	32@32½
Michigan, delaine	33 @34	28@29
Ohio fine, unwashed	21 @22	19@20
Ohio, unmerchantable	23 @24	20@22
Michigan fine, unwashed	20 @21	17@18
Michigan, unmerchantable	22 @23	19@20
Ohio No 1 combing, washed	30 @40	34@35
Michigan No. 1 combing, washed	38 @39	33@34

Hops continue to be subjected to strong bear pressure, which is hardly warranted by late English mail advices. According to the Mark Lane *Express*, Oct. 17, the London market was very strong, with merchants resisting an advance. The *Express* says that "the bulk of the Kent and Sussex second grades have been cleared, and it is now the turn of the choice Mid and East Kents. These are particularly good in color and quality, and, seeing that the quantity is not heavy, growers had reasonably expected that much higher prices would be offered, and, although at present it does not appear likely that their anticipations will be realized, there is little doubt that if they continue to hold out increased offers will be made. 'Fuggles' have sold especially well on account of their sound and healthy condition. This description of hops usually sells well in a season such as 1892 has been, when the more delicate kinds suffer from blight and bad weather. The most disappointing of all the districts this year is Surrey, whose crop has fallen considerably short of that of 1891, with only a small proportion of really choice quality. The usually famous Farnham grounds have come very badly off, the average growth being far below last year, and several planters assert that they are considerable losers. Worcester and Hereford have also proved much below 1891, and this is the more disheartening, seeing that the majority of growers in those districts spare neither expense nor trouble to secure good crops. In Continental and American hops the trade at present passing is on a very limited scale, but for the few lots that find purchasers pretty stiff prices have to be paid."

The market for fresh fruit has not shown any essential change so far as apples and pears are concerned, bnt table and wine grapes have done better, particularly the better keepers. The supply is running short. The market for apples appears to be shaping into better position. The supply of poor keepers and also of inferior is about cleaned up, which is creating a better demand for the more choice good keepers. It now looks as if better prices will rule in the near future.

The dried-fruit market has ruled quiet but strong for apricots, prunes and plums, but easy for peaches, owing to continued free offerings by Chinese driers. Choice to fancy apples are fairly firm, but anything below choice is weak. The shipments of prunes from San Jose, for the week ending with last Saturday, aggregated over 1,585,000 lbs. This is the largest shipment during one week within the history of the trade.

The weather continues against the free drying of raisins. From the best obtainable advices we think it quite safe to place the pack of merchantable raisins at fully 40 per cent less than would have been cured had the season not been so late and weather favorable. Shipments continue to to forward fairly free New York advices continue to report complaints at the manner in which the most of the raisins were marketed. Advices to Oct. 28th are as follows: "Valencia raisins have met with most favor, and a large business in this staple has been completed. The more general inquiry has resultcd in a decidedly stronger and, in instances, a higher market, and the condition of affairs at the close of the day was certainly of a more encouraging and favorable character. The stock has been pretty closely concentrated. The market is in excellent condition, and the indications point to even a higher range of values previous to the full covering by the trade of the country of holiday requirements. For California there is a steady moderate inquiry, though p ime old goods are given the preference by most buyers at the difference in price as compared with new crop."

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	Nov.	Dec.	Jan.	Feb.	Mar.
Thursday	5s11 d	6s00 d	6s00¾d	6s01½d	.....
Friday	5s10½d	5s11½d	6s00¾d	6s01 d	.....
Saturday	5s09½d	5s10½d	5s11½d	5s11¾d	6s00¾d
Monday	5s09¾d	5s10¾d	5s11½d	6s00¾d	6s01½d
Tuesday	5s09¾d	5s10¾d	5s11½d	6s00¾d	6s01½d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market for P. S.
Thursday	33s3d	33s31	33s0d	Slow.
Friday	33s	33s	33s	Easier.
Saturday	33s	33s	33s	Steady.
Monday	33s	32s9d	32s9d	Quiet but steady.
Tuesday	33s	32s3d	32s0d	Held highe.

To-day's cablegram is as follows:

LIVERPOOL, Nov. 2.—Wheat—Red very dull and white firmly held. California spot lots, 6s 9d; off coast, 33s; just shipped, 32s 9d; nearly due, 32s 9d; cargoes off coast, quiet; on passage, rather easier; Mark Lane wheat, inactive; weather in England, colder.

San Francisco.

WHEAT.

	Seller '92.	Buyer Dec.	Buyer Jan.	May
Thursday, high st	131¾	134½	....	138⅝
" lowest	131¼	133⅝	....	137⅞
Friday, highest	131⅜	132⅝	....	136⅝
" lowest	131	132	....	136⅛
Saturday, highest	132	133¼	133⅞	137⅞
" lowest	131¾	132¾	133⅜	136⅝
Monday, highest	....	134⅜	....	138¼
" lowest	....	133⅞	....	137¾
Tuesday, highest	132	133¾	....	138¼
" lowest	132	133	. .	138¼

The following are to-day's recorded sales on Call:

Morning Informal.—Wheat—Buyer December, 200 tons, $1.32⅝; 1000, $1,32⅝. May, 1 0 tons, $1.36½; 900, $1.36⅝; 100, $1.36¼ per ctl. Regular Session.—May, 100 tons, $1 36⅜; 900, $1.36¾. Buyer May, 200 tons, $1.37½; Buyer December, 300 tons, $1.32¾ per ctl. Afternoon.—Buyer December, 600 tons, $1.33⅛; 1300, $1.33⅛. May, 900 tons, $1.86⅜; 6.0, $1.36½; 400, $1.36⅜ per ctl.

BARLEY.

	Seller '92.	Dec.	Jan.	May
Thursday, highest	....	90	90⅞	95
" lowest	....	90	90⅜	95
Friday, highest	....	90¼	91⅛	95¼
" lowest	....	90¼	91	95¼
Saturday, highest	....	*91½	....	....
" lowest	....	91¼	....	....
Monday, highest	90	91⅛	93¾	97
" lowest	90	92⅛	93	96⅝
Tuesday, highest	....	91⅛	93	96¼
" lowest	....	92⅛	93	96½

*Buyer option.

The following are to-day's recorded sales on Call:

Regular Session. – Barley – December, 200 tons, 91⅞c. Buyer December, 100 tons, 92½c per ctl. Afternoon.—December, 100 tons, 91⅜c; 100, 91c; 100, 91½c. January, 200 tons, 91½c per ctl.

Eastern Markets.

The following shows the closing prices of wheat for the past week at

New York.

Day.	Nov.	Dec.	Jan.	March.	May.
Thursday	126⅞	129½		....	140½
Friday	123	126	128½	134	137⅞
Saturday	123	126	128½	134	138
Monday	124½	127	130	135	139
Tuesday	123½	126	129½	134½	138

The following is to-day's telegram:

NEW YORK, Nov. 2.—Wheat 73⅝c for November, 75½c for December, 77c for January, 80c for March, and 82½c for May.

Chicago.

Day.	Dec.	May
Thursday	121½	131
Friday	119	129½
Saturday	119¼	129⅛
Monday	120½	130
Tuesday	120	129

The following is to-day's telegram:

CHICAGO, Nov. 2.—Wheat—71½c for December and 77⅝c for May.

Markets by Telegraph.

English Millers Bidding Lower.

LONDON, Oct. 31.—The *Mark Lane Express* says: The low prices current are greatly affecting market deliveries of wheat, farmers having 15 per cent less and delivering 30 per cent less. Millers are bidding low for imported wheat, knowing that the greater part of the American surplus will come to Great Britain, as France will need only a fifth and Holland only a third what they needed in 1891. Barley, oats and maize are firm. To-day's damp wheat, poor quality, 30s. Foreign unchanged, owing to small imports. Barley, 1s.

Wool Consumption Continues Large.

NEW YORK, Oct. 28.—Bradstreet's says: Wool is only moderately active Manufacturers are not buying ahead, and whenever sales are made they are generally of small amounts. Dealers do not expect manufacturers to buy freely until after election. Mills have been successful as a rule this year in disposing of their products at a profit, and the output has greatly increased. Territories are still quiet and hard to move at quotations. Dealers are firm and refuse to make further concessions. Fleeces are in good demand, but stocks are reduced very low. Quarter-blood wools are moving quite freely, and there is a fair call for three-eighths blood wools. A moderate trade is reported in fall Texas wools. Pulled wools are more active. Fine Australian wools are in better demand. The supply is small. New woo s will not come forward for over two months. The holders are, therefore, confident of their position. A fair demand is noted in carpet wools. Stocks are light and prices steady.

NEW YORK, Oct. 30.—The dominant features of the market are the steadiness of tone and an evident continued need of mill supplies that favor better prices in the near future. Sellers have stocks well in hand, and, with the prosperous position of woolen goods, most of them are solid enough to calmly await the outcome of the situation without admitting a feverish element of outside speculation. Sales at New York: 38,000 pounds of spring California and 440,000 pounds of other domestic, including a quarter of a million pulled, mostly lambs, on private terms, and 465,000 foreign, mostly carpet. The sales at Boston were largely Territory and unwashed Western. Total domestic, 3,147 500, including 112,-000 California spring and 25,000 fall; also 710,000 foreign, of which 472,000 was Australian. Philadelphia mentions all grades as receiving attention at full prices.

Short Wool on Skin Free of Duty.

WASHINGTON, Oct. 29.—The committee appointed by the Treasury Department has rendered an opinion on wool on shearing sheepskins, which does not exceed a quarter-inch in length, that it is of such little value as wool that it should be passed free of duty, but that all shearing skins where the wool exceeds a quarter of an inch in length should be subject to duty. This conclusion has been adopted as the rule of the Department and all collectors have been notified. [The short wool is used by hatters and shoddy mills.—ED. PRESS.]

Lima Beans are Higher.

NEW YORK, Oct. 31.—Lima beans are steady at $2.05 per bushel, spot. Receipts for the month, 45,000 bags. Many have gone on western orders.

Poor Raisins Nominal; Choice, Very Firm.

NEW YORK, Oct. 30.—Receipts for the week, 16,500 boxes and 3500 bags for New England and 8300 boxes and 7300 bags for New York. The bulk has gone eastward. Valencia landed 70,000 boxes last week. As before, quotations are indefinite, except for perfect quality of California. Six and one-half cents is full for such three-crown bags, $1.85 for the best loose boxes and $2.25 for layers. The first bulk offering does not disclose the average good grade promised for October at this date. Out of town buyers already grumble at the condition, and considerable prompt business is checked.

Hops Hold Strong.

NEW YORK, Oct. 30.—There was a fair run of trade. Exporters show some eagerness to secure the first of new State, paying full prices, though the cable is not encouraging. Brewers took prime useful grades of State and Pacific, when they were to be had, at 21@23c. The spot offering is moderate, which keeps general quotations where they ranged a week ago.

Canned and Dried Fruit.

NEW YORK, Oct. 30.—Canned Fruits—Little has been doing in standards. Low grades are working out well for pie for bakers' use. Canned peas have no open quotations. The week's trade in dried prunes was mainly in spot single sizes; nineties at 10¾c, eighties at 11¼c, seventies at 11¾c, sixties at 12c, fifties at 12½c, forties at 13½c. Dried Peaches are weak. Choice are 12½@14c; fancy, 15@16c. Apricots are fairly well supported.

General Remarks and Statistics.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending Nov. 1, '92, were as follows:

Flour, qr. sks	90,845	Bran, sks	11,928
Wheat, ctls	316,539	Buckwheat "	163
Barley, "	55,354	Middlings "	2,859
Rye, "	603	Chicory, bbls	60
Oats, "	22,275	Hops, "	653
Corn, "	7,656	Wool, "	2,776
*Butter, "	884	Hay, ton	1,539
do bxs	553	Straw, "	131
do bbls	71	Wine, gals	243,000
do kegs	280	Brandy, "	6,200
do tubs	180	Raisins, bxs	15,842
do ½ bxs	23	Honey, cs	68
†Cheese, ctls	450	Peanuts, sks	151
do bxs	124	Walnuts "	1,103
Eggs, doz	13,840	Almonds "	553
do " Eastern	11,800	Mustard "	382
Beans, sks	49,036	Flax "	....
Potatoes, sks	26,957	Popcorn "	....
Onions, "	3,654	Broom corn, bbls	....

*Overl'd, 337 ctls. † Overland, 15 ctls.

Exports by Sea from San Francisco from July 1 to Oct. 26.

	1892-93	1891-92
Wheat, ctls	3,781,544	5,322,621
Flour, bbls	422,484	375,510
Barley, ctls	681,152	532,503

Tonnage Movement.

From reliable advices up to Nov. 1, the following summary tonnage movement is compiled:

	On the way 1892.	On the way 1891.	In port 1892.	In port 1891.
San Francisco	247,413	437,662	*176,740	101,673
San Diego	11,378	24,489	7,886	.....
San Pedro	6,333	5,954	....	
Oregon	42,301	33,346	31,537	20,991
Puget Sound	22,157	25,843	.....	
Totals	329,602	527,294	216,163	122,664

*Engaged for wheat, 1892, 60,881; 1891, 91,546.

Cereals.

The London *Daily News* estimates the wheat crop of the world for 1892 at 2,139,000,000 bushels, against 2,185,000,000 bushels last year and 2,125,000,000 bushels two years ago.

Dornbusch says: "The weather during October has been quite unfavorable all through the United Kingdom, although the heavy rains up to the middle of October had not brought the precipitation up to the average. In France the sowing of wheat is being pushed forward, and the early-sown fields present a promising appearance. Rye also looks well. In Holland, Belgium and Germany, fine weather enables farmers to go ahead with autumn-sowing. Hungary has had splendid rain, and field-work is in full operation. In the Danubian provinces, fine weather marked the whole course of harvest, and unusually fine crops of wheat, rye and barley have been secured. The outlook in Russia was disheartening on account of the drought in the southern Governments, but this week the hoped-for rain fell in the Caucasus and southwestern regions, also in the east, but up to yesterday the drought in Azov provinces was unbroken. This timely rainfall will permit of the immediate sowing of winter wheat and rye, and may lead to a freer movement of wheat toward the seaports."

The Chicago *Herald* says there are 10,000 loaded cars of grain in the vicinity of Chicago which the railroads cannot get rid of, because the elevators from Chicago to Buffalo are full, and nobody wants the stuff.

Omaha advices report: "The greatest car famine in the history of the West appears to be imminent. The roads centering in Omaha are commencing to shut down on receiving wheat and corn. There is not a railway in these parts that is not from three to four hundred cars short of actual requirements, and the prospect for a let-up in demand grows less every day." Sioux City, Iowa, advices report: "Despite the extraordinary precautions, a grain blockade and car famine on western roads has set in, and all the roads in Dakota and Nebraska and some of the divisions in northern and western Iowa are wholly unable to handle the grain business. Railroad yards and side-tracks are blocked, delaying traffic of all kinds."

Referring to the above, the New York *Mail and Express*, Oct. 28th, says: "This extraordinary movement has been responsible for large losses. The New York wheat market has passed below the lowest previous prices, and is at present at about the lowest figures reached. On the other hand, the Chicago market, which has been relatively higher owing to the small difference between the markets, has not reached as low figures as New York. October wheat there has been quoted as low as 71¾c, but in 1888 cash wheat sold at 71⅛c in April. The previous year in August it sold at 66⅝c. In October, 1886, it sold at 69⅝c, and in December, 1884, it sold at 69½c. Aside from the years mentioned, there have been no times in recent years when wheat has been as low as it has been at present. It seems to be without doubt a fact that a good portion of the present weakness is due to the open spouts of the farmers' bins. There seems to be every reason for believing that, if re.

eipts of wheat had been as much smaller than last year as the crop, a large portion of the present depression would not have been seen."

Wheat to-day was easy abroad for American red but firm for white. The local maket held steady with very little offering. The tonnage in port shows an increase during the week. Charters closed weaker.

Barley was active and firm to-day. The call appears to be running chiefly on feed, of which the market for No. 1 is oversold. Dark barley is firmer. Malting barley is firm but not quotable higher.

The market for oats was quite strong to-day but no higher quotations were given.

Corn was dull but fairly steady at current quotations.

Stocks of Grain.

The Produce Exchange Call Board reports the following stocks of grain, etc., in city Call Board warehouses at the close of October, and on the 1st of that month:

	1st.	31st.
Wheat, tons	3,182	3,452
Barley	24,613	28,194
Oats	3,015	3,713
Corn	2,175	2,867
Bran	1,232	1,579

At the close of October, 1891, the stocks in city Call Board warehouses were as follows: Wheat, 7410 tons; Barley, 21,995; Oats, 4580; Corn, 719; Bran, 320.

The receipts in October, 1892, were 70,885 tons Wheat, 14,681 Barley, 4457 Oats, 1623 Corn and 3201 Bran.

The stocks of Wheat, October 31, 1892, in all Call Board warehouses were as follows:

	Tons.
San Francisco	3,452
Stockton	74,792
Port Costa	130,384
Total	208,628

As against 229,179 tons on October 31, 1891.

Feedstuff.

Bran was weak to-day, with offerings fairly free and an offish demand. Middlings were easy. Feed meal was quiet. Roll-barley was firm at current quotations.

Hay was firm to-day with only a fair demand and light offerings. Holders dot appear disposed to offer much on the market. This course is dictated by the belief that better prices will be obtained later on particularly so if we should have a hard winter.

Dairy Produce.

The butter market to-day was in buyers' favor and prices took on a wide range. Forced sales were made at from two to five cents per pound below prices which forced purchasers could have been made. Close buyers had things their own way. The market was unsatisfactory and hard to quote.

Cheese was steady for old and firm for mild new. The demand was only fair.

Eggs were strong and in good demand. While 42½ cents was the ruling price for selected, fresh-laid, yet 45 cents was paid for the better selected, white-colored, fresh-laid. Utah were firm and tending up. Cold-storage were firmer as were "as is."

Vegetables.

Garden truck was essentially unchanged to-day. Tomatoes in a small way moved off fairly free. Marrowfat squash for table use sold better, but cow-feed remained unchanged. Root vegetables, cabbages, celery and cauliflower were essentially unchanged.

There was a fair inquiry for choice shipping onions but the demand was met without advancing prices. Potatoes were firm with a strong tone for the more choice good-keepers, suitable for shipping or the better class of trade.

Fruit.

The market for table grapes was fairly active at firm prices for the more choice good keepers. Poor keepers were slow. The same remarks apply to-day to wine grapes. Apples met with a fairly good demand at the advanced quotations. Some Kern county peaches came in and have ready sales. Winter Nelis pears were strong, but common pears were slow.

Remarks under review cover the market for dried fruit and raisins.

Live Stock.

The market shows a fair degree of strength for bullocks. Mutton sheep have held to steady prices, but hogs have been barely steady. Calves are firmer. If range pasture continues to improve, it is quite likely that the offerings of bullocks will fall off.

Miscellaneous.

Poultry has been demoralized and unsatisfactory. Heavy receipts (five carloads) of Eastern the past week, filled up dealers and to force sales, commission merchants had to make concessions. Turkeys are lower, as are also geese.

Game has ruled fairly steady. Quails fluctuate from day to day. To-day, $1.10 was the outside figure.

Beans are in active demand. The extension by the Mexican Government for the time to import free of duty, has had a stimulating effect, as has an improved demand for shipping and to coast points.

Wool and hops are noted under the review.

Hams are easier, but bacon and lard are steady.

Sugar was reduced ⅛c per pound the past week.

Almonds are easier, but other nuts are steady. There is a continued free movement eastward.

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

OCTOBER 23, 1892.

Limes, Mex	3 50 @ 4 50
Do Cal	— @ —
Lemons, box	5 00 @ 7 00
Do Sicily choice	8 00 @ 8 50
Strawberries, pr chest	5 00 @ 9 00
Peaches, box	50 @ 1 50
Apples	30 @ 60
Do Choice	75 @ 1 00
Do Extra choice	1 00 @ 1 25
Canteloupes, pr crate	— @ —
Grapes, pr bx—	
Do White	35 @ 50
Do Black	30 @ 60
Do Muscats	30 @ 60
Do Tokays	35 @ 65
Do Royal Isabel	1 00 @ 1 25
Do Cornichon	50 @ 75
Wine Grapes, Zinf'nd'l, pr tn	— @17 00
Mission	10 00 @12 00
White	8 00 @10 00
Pears	25 @ 1 00
do Winter Nelis	75 @ 1 25
Quinces pr bx	75 @ 1 25

Extra choice fruit for special purposes sells at an advance on outside quotations

Beets, sk	— @ 50
Carrots, sk	30 @ 50
Okra, dry, lb	8 @ 10
Parsnips, ctl	1 00 @ 1 50
Peppers, dry, lb	7 @ 9
Do grn Chili, bx	40 @ 60
Do do Bells	40 @ 60
Turnips, ctl	— @ 60
Cabbage, 100 lbs	35 @ 50
Garlic, lb	2 @ 2½
Tomatoes	25 @ 60
String Beans, lb	3 @ 4
Lima Beans	4 @ 4½
Cucumbers, box	— @ —
Do pickle ⅌ lb	1 @ 2
Mushrooms	— @ —
Egg Plant, bx	25 @ 50
Mar'fat Squash, ⅌ ton	6 00 @12 00
Cauliflower	50 @ 65
Celery	50 @ 75

Live Stock.

BEEF.	
Stall fed	6 @—
Grass fed, extra	5¾@—
First quality	5¼@—
Second quality	4¼@—
Third quality	3 @—
Bulls and thin Cows	2 @—
VEAL.	
Range, heavy	4½@—
Do light	5¾@—
Dairy	6½@—

MUTTON.	
Wethers	6½@—
Ewes	6 @—
Do Spring	7 @—
HOGS.	
Light, ⅌ lb, cents	4¾@—
Medium	4½@—
Heavy	4½@—
Soft	4 @—
Feeders	3½@—
Stock Hogs	3½@—

General Produce

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

NOVEMBER 2, 1892.

BEANS AND PEAS.	
Bayo, ctl	2 30 @ 2 40
Butter	2 75 @ 3 00
Pea	2 65 @ 2 75
Red	2 40 @ 2 50
Pink	2 10 @ 2 15
Small White	2 50 @ 2 65
Large White	2 45 @ 2 50
Lima	3 00 @ 3 15
Fid Peas, blk eye	1 60 @ —
Do green	2 20 @ —
Do Niles	1 40 @ —
Split	4 50 @ 5 50
BUTTER.	
Cal., poor to fair, lb	12½@ —
Do'g'd to choice	20 @ —
Do Giltedged	— @ 30
Do Creamery	26 @ —
Do do Giltedge	— @ 32½
Eastern, lad e	12½@ —
Cal. Pickled	20 @ —
Cal. Keg	20 @ 24
East'rn Cream'y	25 @ —
CHEESE.	
Cal. choice cream	9½@ —
Do fair to good	8 @ —
Do Giltedged	— @ 12
Do Skim	5 @ 6½
Young America	— @ 12
EGGS.	
Cal. "as is," doz	25 @ —
Do shaky	20 @ —
Do candled	35 @ —
Do choice	40 @ —
Do fresh laid	— @ 42½
Do do sl'ed white	— @ 45
Eastern "as is"	20 @ —
Do candled	25 @ —
Do selected	30 @ —

Outside prices for selected large eggs and inside prices for mixed sizes—small eggs are hard to sell.

FEED	
Bran ton	14 00@ 15 00
Feedmeal	26 00@ 27 00
Gr'd Barley	19 00@ 20 50
Middlings	21 00@ 23 00
Oil Cake Meal	— @ 35 00
Manhattan Horse Food (Red Ball Brand) in 100-lb. Cabinets	@ 8 00
HAY.	
Wheat, per ton	8 50@ —
Do choice	— @ 14 00
Wheat and oats	8 00@ 12 50
Wild Oats	7 00@ 10 00
Cultivated do	6 00@ 9 00
Barley	6 50@ 9 50
Alfalfa	8 00@ 9 50
Clover	8 00@ 10 00
Straw, bale	30@ 50
GRAIN, ETC.	
Barley, feed, ctl	82½@ — —
Do good	86½@ — —
Do choice	90 @ — —
Do brewing	92½@ — —
Do do choice	96½@ — —
Do do Giltedge	1 00 @ — —
Do Chevalier	1 00 @ — —
Do do Giltedge	1 15 @ — —
Buckwheat	2 25 @ — —
Corn, white	1 20 @ 1 25
Yellow, large	1 07½@ 1 10
Do small	1 12½@ 1 15
Oats, milling	1 37½@ — —
Feed, choice	1 35 @ — —
Do good	1 30 @ — —
Do fair	1 25 @ — —
Do common	1 17½@ — —
Surprise	1 45 @ — —
Black Cal	1 10 @ 1 25
Do Oregon	— @ — —
Gray	1 30 @ — —
Rye	1 12½@ 1 17½
*Wheat, milling Gi tedged	1 35 @ — —
Do choice	1 33½@ — —
Do fair to good	1 32½@ — —
Shipping, choice	1 33½@ — —
Do good	1 31½@ — —
Do fair	1 28½@ — —
Common	1 26½@ — —
Sonora	1 25 @ 1 30
HOPS	
1892, fair	18 @ —
Good	20 @ —
Choice	21 @ —
FLOUR.	
Extra, city mills	3 90 @ —

Do country m'ls	3 90 @ —
Superfine	2 50 @ 3 00
NUTS—JOBBING.	
Walnuts, Cal. lb	8 @ —
Do choice	10 @ —
Do paper-shell	11 @ —
Almonds, soft sh'l	12 @ —
Paper shell	13½@ —
Hard shell	6 @ —
Brazil	8 @ —
Pecans, small	8 @ 10
Do large	14 @ 16
Peanuts	3½@ 4½
Filberts	10 @ —
Hickory	7 @ 8
Chestnuts	18 @ 20
ONIONS.	
Silverskin	40 @ 60
POTATOES.	
River Reds	40 @ 50
Early Rose, ctl	40 @ 50
Peerless	60 @ 70
Garnet Chilies	60 @ 70
Burbank S'ed's	40 @ 60
Do do Salinas	85 @ 1 15
Sweet	50 @ 1 00

Extra choice sell for more money

POULTRY.	
Hens, doz	5 00 @ 6 00
Roosters, old	5 00 @ 5 50
Do young	4 50 @ 5 50
Broilers, small	2 50 @ 3 00
Do large	3 50 @ 4 00
Fryers	4 00 @ 4 50
Ducks	4 00 @ 4 50
Do large	4 50 @ 5 00
Do extra large	— @ 6 00
Geese, pair	1 50 @ 1 75
Turkeys, gobl'r	15 @ 16
Turkeys, hens	13 @ 14

All kinds of poultry, if poor or small, sell at less than quoted; if large and in good condition, they sell for more than quoted.

Manhattan Egg Food (Red Ball Brand) in 100-lb. Cabinets	— @11 50
GAME	
Quail, per doz	1 00 @ 1 25
Ducks	— @ —
Do Mal'd ⅌ doz	4 00 @ 5 50
Do Sprig	2 25 @ 3 00
Do Teal	1 50 @ —
Do Widgeon	1 50 @ 2 00
Do small	1 00 @ 1 50
Geese	— @ —
Do gray ⅌ doz	2 00 @ 2 50
Do White	1 00 @ 1 50
Do Brant	1 00 @ 1 50
Snipe	— @ —
Do English, doz	1 50 @ 2 00
Do Jack, per doz	75 @ —
Hare, per doz	1 00 @ 1 50
Rabbits, large	1 25 @ 1 50
Do small	1 00 @ 1 25
PROVISIONS.	
Cal. bacon, heavy, per lb.	12 @ —
Medium	13 @ —
Light	14 @ —
Lard	8½@ 12
Cal sm'k'd beef	11½@ —
Hams, Cal salt'd	13 @ —
Do Eastern	14 @ —
SEEDS.	
Alfalfa	10 @ —
Clover, Red	14 @ —
White	28 @ —
Flaxseed	2 25 @ —
Hemp	4½@ —
Mustard, yellow	5½@ 6½
Do brown	4 @ —
WOOL. FALL, 1892.	
S Joaquin, plain	6½@ 10
Do mountain	10 @ 12
Do lamb	8 @ 10
Northern Choice	14 @ —
Do Defective	11 @ —
Do Lamb	10 @ 14
HONEY—1892 CROP.	
White comb, 2-lb frame	9½@ 12½
Do do 1-lb frame	11½@ 14½
White extracted	7½@ —
Amber do	6½@ —
Dark do	6½@ —
Beeswax, lb	23 @ —

Dried Fruits.

The quotations given below are for average prices received by commission merchants for consignments by growers. Something very fancy fetches an advance on the highest quotations, while poor sells slightly below the lowest quotations. Prices, unless otherwise specified, are for fruit in sacks; add for 50-lb. boxes ¼c per lb. and for 25-lb. boxes ½ to 1c per lb.

APPLES—1892.	
Sun-dried, ¼'s, com'on	2½@ 3½
Do do prime	3½@ 4
Do do choice	4 @ 4½
Do sliced, common	3½@ 4
Do do prime	4 @ 4½
Do do choice	4½@ 5½
Evap bl., rieg, 50-lb. bx	8 @ 9
Fancy, higher.	
APRICOTS—1892.	
Sun-dried, unbl. com.	4½@ 5½
Do do prime	6½@ 8
Do do choice	9 @10
Do bleached, prime	12½@—
Do do choice	15½@—
Do do fancy	14½@16
Evap choice, in boxes	15 @16
Do fancy, do	15½@17
FIGS—1892.	
Sun-dried, black	4 @—
Do white	3½@—
Do do washed	— @—
Do do fancy	— @—
Do do pressed	— @—
Smyrna boxes	— @—
Do sacks	— @—
GRAPES—1892.	
Sun-dried, stemless	3½@—
Do unstemmed	1½@ 2
NECTARINES—1892.	
Red, sun-dried	8 @ 9
Do Evap., in boxes	— @—
White, sun-dried	9½@11
Do evaporated	— @—
PEACHES—1892.	
Sun-dried, unpeeled	7 @ 7½
Do do prime, bl'ched	10 @—
Do do choice, do	11 @—
Do do fancy	12 @—
Sun-dr., pl'd, bl'ched	— @—
Do do prime	14 @—

Do do choice	— @15
Do do fancy	— @16
Evap., peeled, in boxes choice	17½@—
Do do fancy	20 @—
PEARS—1892.	
Sun-dried, quarters	— @ 3
Do sliced	4 @ 5
Evap., slic'd, in b'xes	7 @ 8
Do ring do	9 @10
Unp'led, q'rt'd, bl'ch'd	10 @11
PLUMS—1892.	
Pitted, sun-dried	10 @10½
Do evap. boxes, choice	— @—
Do do do fancy	— @—
Unpitted	4 @ 5
PRUNES—1892.	
Cal. French, ungraded	7½@ 8
Do graded, 60 to 100	8½@ 9
Do do 40 to 60	11 @12
Fancy sell for more money.	
RAISINS—1892.	
London Layers, cluster per box	1 90 @2 00
Do choicest do	1 60 @1 70
Do prime pr bx	1 40 @1 45
Loose Muscatels, common, pr bx	— @—
Do choice do	1 25 @1 30
Do fancy do	— @—
Unstem'ed Muscatels in sks pr lb.	4 @ 5½
Stemmed do do	— @—
Seedless do do	— @—
Do do pr 20-lb. bx	— @—
Sultanas, unbl, bxs	— @—
Do bl'ched in bxs	— @—

Halves, quarters and eighths 25, 50 and 75 cents higher respectively than whole boxes.

Twine and Baling Rope.

BALE ROPE.	
Sisal, 3 yarns	9
Do, 2 yarns, light	9½
Duplex, 3 yarns	9
Manilla, 3 yarns, heavy	10½
Pure Manilla, 3 & 4 yarns	12
Do, 2 yarns, light	12½

TWINE.	
Pure Manilla Hop, in balls, tarred	11½
Do, Grapevine, in balls or coils	12
Do, Spring	16
Duplex Hop in balls, tar'd	9½
Do, Grapevine, in balls or coils	10½

Wine.

Red and White Wine from bay counties, vintage of 1891, per gal., in cellar lots ..... 12 @20

Auction Sales of California Fruits.

At New York.

Oct. 27.—Two carloads: Tokay Grapes, double crates, $3 65@5.05; average, $4.20; single crates, $1.30@2.60; average, $1 85; Cornichon Grapes, double crates, averaged $4 30; single crates, $2.15.

Oct. 27.—One carload: Tokay Grapes, double crates, $4@4.62; Tokay Grapes, single crates, $1.55@1.60; Emperor Grapes, single crates, $1.70@1.75; Muscat Grapes, single crates, $1.65; Black Ferrara Grapes, single crates, $1.55; Bilyeau's Late Peaches, $1.80@2.25; Cling Peaches, $1.20@1 45.

Oct. 28.—Three carloads: Tokay Grapes, double crates, $2.85@4 80; single crates, $1.25@2.25; Cornichon Grapes, double crates, $3.65@4; single crates, $1.45@2.35; Emperor Grapes, single crates, $1 55; Black Morocco Grapes, single crates, $1.45; Ferrara Grapes, single crates, $1.35@1.60.

Oct. 29.—One carload: Tokay Grapes, $3.25@4 80; single crates, $1.25@2.10; Cornichon Grapes, $3.60@4 95; single crates, $1.45@2.35; Ferrara Grapes, $1.55; Morocco Grapes, $1.45@1.70; Muscat Grapes, $2.50@3.50.

Oct. 31.—Two carloads. Tokay Grapes, double crates, $3.55@5.30; single crates, $1.50@2.45; Cornichon Grapes, double crates, $3 90; single crates, $1.75@1.95; Coe's Late Red Plums, $3.45; Easter Beurre Pears, $3.25.

Nov. 1.—Three carloads: Winter Nelis Pears, $3.50 ⅌ box, Tokay Grapes, double crates, $3 65@4.90; single crates, $1.85@2.60; Cornichon Grapes, double crates, $3.70@4.25; single crates, $2 25; Lady Washington, single crates, $1.40.

At Chicago.

Oct 27.—Four carloads: Coe's Late Red Plums, $2.05; Glout Morceau Pears, $2.85; Doyenne Pears, $2 05; Tokay Grapes, single crates, $1 10@1.30; Cornichon Grapes, single crates, $1@1.30; Emperor Grapes, single crates, $1.25; Muscat Grapes, single crates, 80c@$1.15; Purple Damascus Grapes, single crates, 95c; Black Ferrara Grapes, single crates, 90c; Quinces, $1.15.

Oct. 27—Two carloads: Peaches, $1@2 20; Pears, boxes, $1.70@1.80; Pears, in crates, $1.05; Easter Beurre Pears, boxes, $2.20@2.45; Easter Beurre Pears, in crates, 70c@$1.65; Muscat Grapes, double crates, $2@2 60; Muscat Grapes, single crates, $1.20; Tokay Grapes, double crates, $2.75@3.50; Tokay Grapes, single crates, 95c@$1.55; Cornichon Grapes, double crates, $2.50; single crates, $1.40; Emperor Grapes, bad order, 50c; Malaga Grapes, 50@95c.

Oct. 28.—One carload: Tokay Grapes, single crates, 95c@$1.50; Tokay Grapes, double crates, $3.35; Peaches, 85@90c; Pears, $1.05@2 20.

Oct. 28.—Two carloads: Tokay Grapes, double crates, $2.85@3.45; single crates, $1.30@1 60; Cornichon Grapes, double crates, $2.60; single crates, $1.15; Muscat Grapes, double crates, $2.30; single crates, $1.10@1.20; Pears, $2.10.

Oct. 29.—Three carloads: Tokay Grapes, single crates, $1@1.35; Cornichon Grapes, $1.30; Emperor Grapes, $1 80; Coe's Late Red Plums, $2; Glout Morceau Pears, $2.10; Lawrence Pears, $2.05; Easter Beurre Pears, $2.

Oct. 31.—Two carloads: Tokay Grapes, double crates, $2.50@2.90; single crates, $1@1.50; Cornichon Grapes, double crates, $2.25; single crates, $1@1.15; Muscat Grapes, single crates, 95c@$1.10; Rose de Peru Grapes, double crates, $1.20; Quinces, $1.10.

Nov. 1.—Three carloads: Glout Morceau Pears, $2 90; Winter Nelis Pears, $2 20; Pound Pears, $1.60; Coe's Late Red Plums, $2; Bilyeau's Late Peaches, $1.60; Bonanza Peaches, $1 40; Cornichon Grapes, single crates, $1.25; Emperor, single crates, $1.20; Tokay, single crates, $1@1.25; Purple Damascus, single crates, 80c; Black Ferrera, single crates, 85c; Quinces, $1@1.05.

How They Moved Obelisks.

The obelisks of the Pharaohs are made of red granite called syenite, says the writer of "Cleopatra's Needle." In the quarries at Syene may yet be seen an unfinished obelisk, still adhering to the native rock, with traces of workmen's tools so clearly seen on its surface that one might suppose they had been suddenly called away and intended soon to return and finish their work. This unfinished obelisk shows the mode in which the ancients separated these immense monoliths from the native rock. In a sharply-cut groove marking the boundary of the stone are holes, evidently designed for wooden wedges. After these had been firmly driven into the holes, the groove was filled with water. The wedges, gradually absorbing the water, swelled and cracked the granite throughout the length of the groove. The block, once detached from the rock, was pushed forward upon rollers made of the stems of palm trees from the quarries to the edge of the Nile, where it was surrounded by a large timber raft. It lay by the river side until the next inundation of the Nile, when the rising waters floated the raft and conveyed the obelisk down the stream to the city where it was to be put up. Thousands of willing hands pushed it on rollers up an inclined plane to the front of the temple where it was designed to stand. The pedestal had previously been placed in position and a firm causeway of sand covered with planks led to the top of it. Then, by means of rollers, levers and ropes made of the date palm, the obelisk was gradually hoisted into an upright position. It speaks much for the mechanical accuracy of the Egyptian masons that, so true was the level of the top of the base and the bottom of the long shaft, in no single instance has the obelisk been found to be out of the true perpendicular.

THE United States gold dollar contains 25.8 troy grains. The ordinary pound, avoirdupois, contains 7000 grains, therefore $1,000,000 in gold coin weigh 3686.4 pounds avoirdupois, or over a ton and a half. The standard silver dollar weighs 412.5 troy grains, and $1,000,000 in the United States silver coinage will weigh 56,931 pounds, or nearly 28¼ tons.

TO MAKE a glue that will resist the action of water, boil one pound of glue with two quarts of skimmed milk.

Two Live Granges.

SACRAMENTO, Oct. 31.

American River Grange celebrated its anniversary Oct. 27th by an all-day meeting. The fourth degree was conferred on a class of four followed by a harvest feast. The afternoon session was an open one and numerous candidates for county offices appeared and made their appeals to voters. Sacramento, Enterprise and Florin Granges were well represented. The affair concluded with a grand ball in the evening.

An entertainment will be given by the Grange at Christmas time, the proceeds to be given to the Grange Temple fund.

Sacramento County Pomona Grange, No. 1, held a meeting Oct. 29th at Sacramento, and decided to call a meeting on Wednesday, Nov. 30th, at 1 o'clock P. M., when the county exhibit committee will be expected to report.

On motion of Sister S. H. Jackman, the Grange appropriated $25 of the National Temple of Ceres fund.

A committe was appointed to appear before the Board of Supervisors and ask for the appointment of a horticultural commission.

A committee was also appointed to obtain information relative to the holding of a Farmers' Institute.

Bro. S. H. Jackman presented a resolution in reference to the State school text books which was unanimously adopted and ordered sent to each Pomona and subordinate Grange in the State. The resolution reads as follows:

WHEREAS, It has come to the knowledge of the body that interested parties are seeking, through Teachers' Institutes and through paid articles which appear in newspapers under the guise of voluntary contributions, and in other ways, to undermine and break down the present system of school books in this State; and whereas, we deprecate a return to the system formerly in vogue, with its train of corrupting influences; and whereas, notwithstanding specious and seductive influences to the contrary, it is evident to us that the present system possesses large economic advantages; and whereas, we have confidence in the integrity and ability of the State Board of Education, and in the administration of the State Printing Office; therefore,

Resolved, That we request our State Legislature and our State Administration to discountenance all attempts to abolish the present system and to do all in their power for its maintenance, perfection and efficiency. H. S. J.

A PETRIFIED FOREST.—F. B. Schemerhorn, Geologist of the Idaho World's Fair Bureau, who recently discovered the great glaciers in Idaho county, has found a fossil forest in the center of Custer county. In the same locality he has discovered the petrified bones of a now extinct race of men and animals, which will be sent to Chicago. The forest covers an area of four square miles and the condition of the ground shows that at one time an enormous flow of clay which worked in from the northwest has buried the tree trunks to a great depth. This clay has turned to stone and no one can ascertain its true depth without going to great expense. All the trees in this forest have their tops broken off and stand from 10 to 40 feet above the ground, averaging about 28 to the acre. Schemerhorn took the exact measurement of some of the trees and found them to average 12 feet in diameter on top and 16 feet in diameter at the surface of the ground. How far the trunk reached through the clay stone to the soil he had no means of ascertaining. A branch which had become detached from a tree and was lying about 16 feet from it was three feet in diameter. From the size of the trees and their branches Mr. Schemerhorn thinks they are a species of redwood such as is found in California and attributes their fossilization to the clay, which, bearing a large part of mineral and presumably coming from some volcano, soon turned the living trees into monuments of stone.

MISS BRIGHT (of the Hub)—Why, her books are simply delightful! Indeed, she is really the most liberal writer I know.

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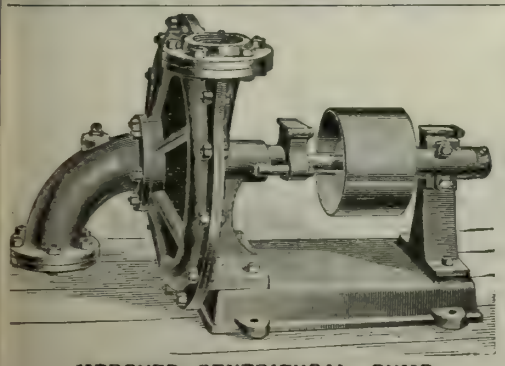

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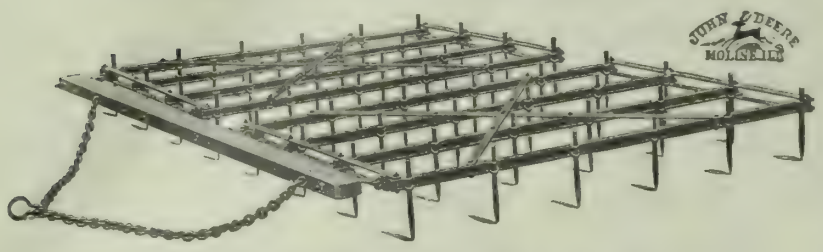

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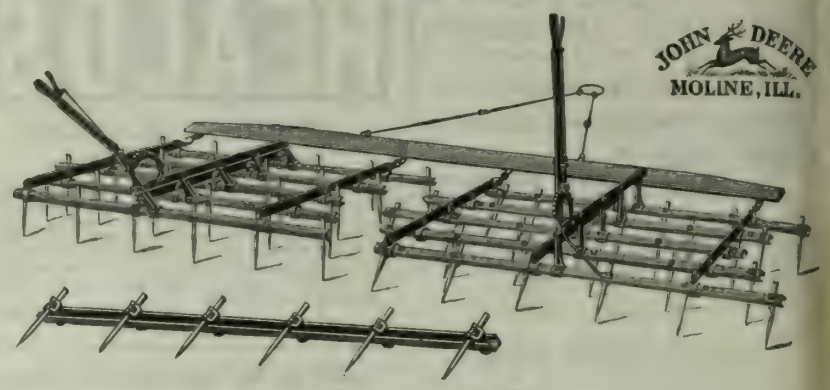

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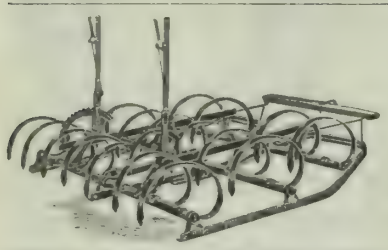

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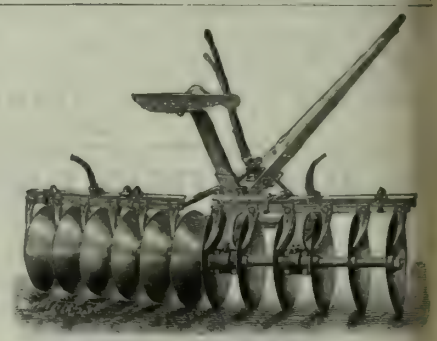

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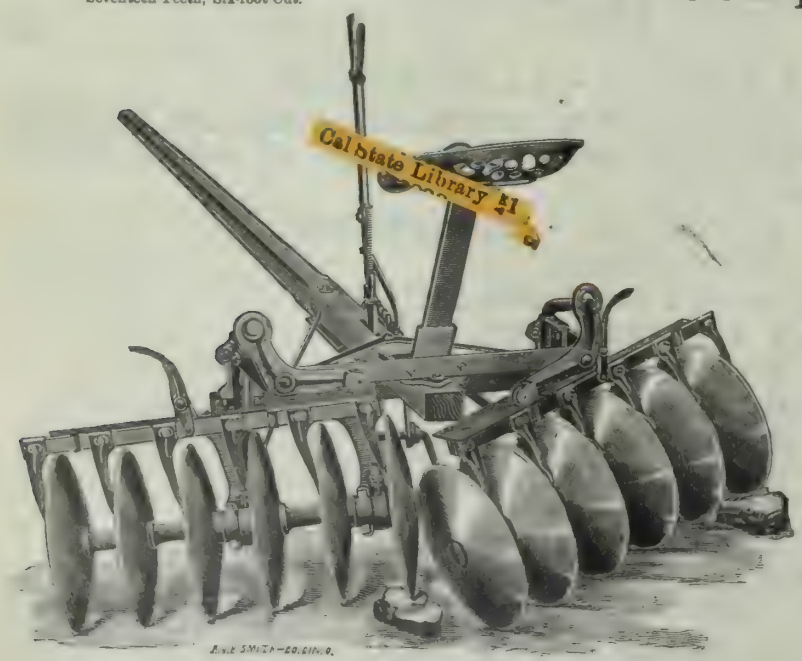

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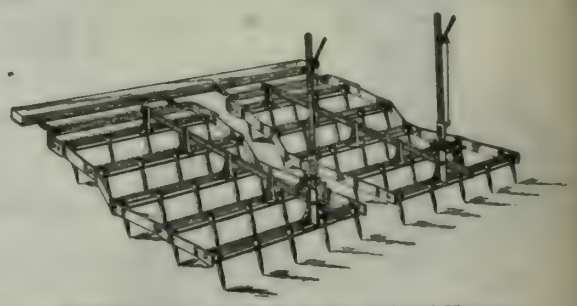

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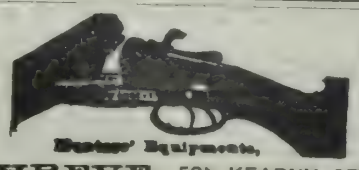

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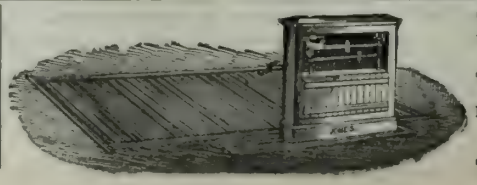

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PACIFIC RURAL PRESS

Vol. XLIV. No. 20. SAN FRANCISCO, SATURDAY, NOVEMBER 12, 1892. THE DEWEY PUBLISHING CO Office, 220 Market St.

The State Flower Show.

The grand floral exhibition in the Mechanics' pavilion in this city, to which we alluded in last week's RURAL, was continued until the evening of November 4th and proved in every respect successful and satisfactory. As a display for plant-lovers alone and not winning patronage by either social or charitable annexes, it did not, of course, command the patronage which such elements secure. The exhibition did, however, demonstrate that the State Floral Society can command attention and patronage from the purely floricultural interests to enable it to employ the largest floor-space in San Francisco for its display, to pay the premiums which it offers and the other expenses of the undertaking which are considerable. This fact must be looked upon as significant by many RURAL readers who are directly interested in the popularization of the higher floricultural arts and education of the people to appreciate and desire to possess floral treasures which are the best of their kind.

The State Floral Society has done a very important thing also in having had in practical operation during two great competitions a system of judging which is far in advance of anything practiced in this State hitherto. The judges have acted independently and without consultation; in fact, no judge knew what other individuals were acting upon the same exhibits. Each had a separate view of the competing displays (which had numbers instead of exhibitors' names) and each marked in his own book the percentage of each entry. These percentages were afterward averaged by the committee and the awards made accordingly. By this system it was impossible to make awards by favoritism, and the division of the awards so as to give all exhibitors something was impossible. Another progressive movement of the society was to award no first premiums to displays which did not secure from the judges an average of 85 per cent. Because of this rule several classes had no first premiums. It was decided also to award no premiums at all to objects which did not score more than 60 per cent. The idea is to induce all exhibitors to strive for ideal perfection in their flowers and plants. Simply being best of the exhibits will not carry the first award unless the material is in itself of the highest grade.

This fall's show drew its attendance and its exhibits from a considerable area of the State. Every one praised the excellence and extent of the exhibition. No words can adequately describe the gorgeousness and perfection of some of the chrysanthemum displays. The groups of palms and foliage plants were the property of more growers than ever before competed. This stimulation and widening of interest at the center should cheer and encourage floral societies in all parts of the State.

Town Endowments.

All honor those who honor their native or adopted towns with portions of their surplus wealth. The erection of creditable town buildings, the furnishing of hospitals, libraries, etc., is certainly a line of public-spirited generosity which all rich people should draw through their wills or follow during their lives. We are glad to see that the energetic and progressive town of Petaluma has found a generous friend in one of her oldest citizens. A very pleasant meeting was held in the city hall on the afternoon of November 5th, at which Harrison Meacham, who had already given the town a bronze fountain worth $1000, made a very earnest and feeling speech, and presented a deed to Petaluma of 1000 acres of land, worth $50 an acre. The deed is made to five trustees—two gentlemen and three ladies, all leading citizens of Petaluma, and their successors in trust for the city, and the proceeds are to be used for charitable purposes. The audience, by a rising and unanimous vote, expressed its thanks to the public-spirited donor..

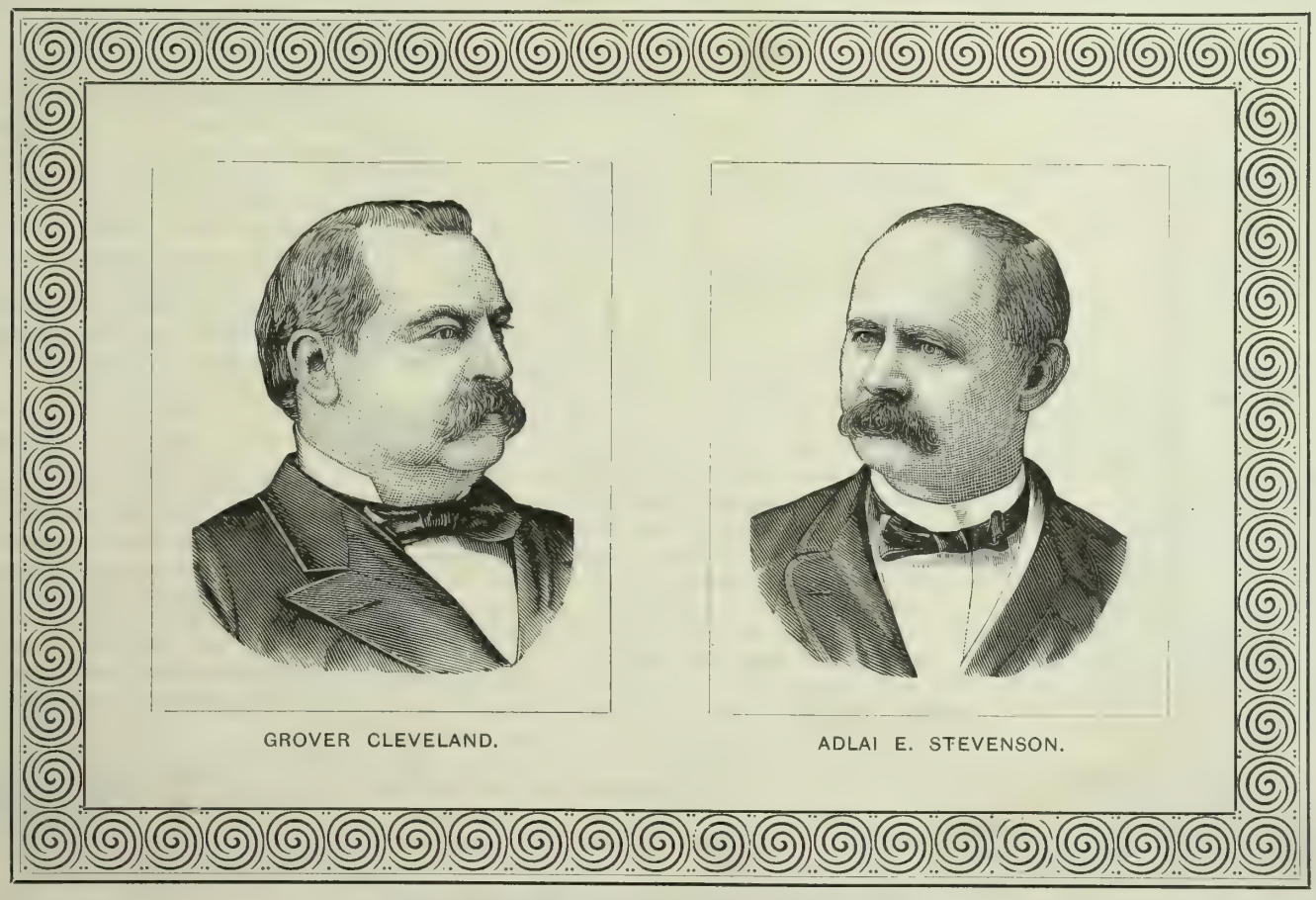
Mr. Meacham's money thus bestowed will relieve suffering and prevent distress so long as property rights prevail. How much better thus to bestow wealth than to bestow it in immoderate amounts upon those who are more injured than benefited by the bestowal.

THE Supreme Court of Missouri has decided that official notices published in Sunday papers are not legal.

Cleveland and Stevenson.

On another page we give a summary of returns from Tuesday's election, which named Grover Cleveland as President elect and Adlai E. Stevenson Vice-President elect of the United States. On this page we give portraits, reproduced from photographs, which are said to be correct and excellent likenesses.

The general facts concerning Mr. Cleveland are well known. He was born in Essex county, New Jersey, in 1837, his father being a Presbyterian clergyman located at Calwell in that county. The boyhood of Mr. Cleveland was like that of most American youths of moderate fortune. He was a grocer's clerk at 14, a law student at 18, a lawyer in responsible practice at Buffalo, New York, at 25, subsequently Sheriff of the county, Mayor of the city and Governor of New York. He was elected to each office on a reform platform and was chosen President of the United States in 1884 by a combination of old-line Democrats and protesting Republicans. His administration of the office is recent history and need not be rehearsed. In 1888 Mr. Cleveland was again a candidate for the Presidency, but was beaten by Benjamin Harrison. This year he returns the compliment by beating Mr. Harrison, whom he will succeed on the fourth of next March. Mr. Cleveland, as his picture represents, is a man of large frame and robust habit, in the prime of manhood and in perfect health. He will bring to the duties of the President experience in office, prime physical and mental capacities, a courage which no one questions and an integrity which commands the admiration and respect of the country.



GROVER CLEVELAND. ADLAI E. STEVENSON.

THE PRESIDENT AND VICE-PRESIDENT ELECT.

Mr. Stevenson was born in Kentucky on the 23d of October, 1835. His father and mother were both natives of North Carolina, so he is both by birth and descent a Southern man. Early in life he removed to Bloomington, Ill., where he has lived for over 30 years. Mr. Stevenson has served in the lower house of Congress and was First Assistant of the Postoffice Department of the Government during Mr. Cleveland's first term. He is a lawyer by profession and is considered by his neighbors and those who know him best to be both an able and an honest man. To the country at large he is scarcely known at all, his nomination having been due less to personal reasons than to motives of policy. In appearance Mr. Stevenson is less imposing than Mr. Cleveland, but looks what he is, a plain, substantial, hard-working professional man.

QUARANTINE precautions at Boston are to be continued.

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By The Dewey Publishing Co.

Office, 220 Market St.; Elevator, 12 Front St., San Francisco., Cal.

Annual Subscription Rate Three Dollars a year. While this notice appears, all subscribers paying $3 in advance will receive 15 months' (one year and 13 weeks) credit. For $2 in advance, 10 months. For $1 in advance, five months. Trial subscriptions for three months, paid in advance, each 60 cents.

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One inch	1.50	5.00	13.00	42.00

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Registered at S. F. Post Office as second-class mail matter.

Any subscriber sending an inquiry on any subject to the Rural Press, with a postage stamp, will receive a reply, either through the columns of the paper or by personal letter. The answer will be given as promptly as practicable.

Our latest forms go to press Wednesday evening.

ALFRED HOLMAN.....General Manager

San Francisco, November 12, 1892.

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Nursery Stock—Martinez Nurseries.
Stock Sale—Killip & Co.
Plows—Oliver Chilled Plow Co.
Seeders—Baker & Hamilton.
Agricultural Machinery—Byron Jackson.
Saws—Henry Disston & Sons, Philadelphia, Pa.
Chickens—C. Blom, St. Helena, Cal.
Nursery Stock—H. C. Graves & Sons, Lee's Summit, Mo.
St. Jacobs' Oil—The Chas. A. Vogeler & Co., Baltimore, Md.

See Advertising Columns.

The Week.

The all-engrossing topic of the week is the election, to which due attention is given in other columns. Beside the results of this great issue other matters are hardly of secondary importance; in fact, as we write on Wednesday, people almost refuse to speak or even to think of anything else. It will take several days for the populace to arrive at anything like its normal state of mind.

The season advances gently, and prophets who walk in the November sunshine mop their foreheads and predict a winter of old-time salubrity. November is shaping, so far as can now be judged, for one of its low records in rainfall. Grass which had temerity to start upon the slight moisture brought by the early rains is already in doubt as to the wisdom of its sprouting, for there have been several days of very dry air and drying winds, and there is very little left to maintain growth.

The season's needs are for a generous wetting down. The last fruit harvest in some parts showed a deficiency of bottom water, and surface wetting will not answer this year. It is true that this can be had without heavy early rains, but it is comforting and in many cases very accommodating to get several inches of rain into the ground before Christmas. We hope it will come this year.

Next Tuesday the great convention of fruitgrowers, to which we have made full allusion, will open in San Jose and hold through the week. Go early and stay through; it will be an occasion of much interest and profit!

A Flour-Mill Pest.—It is not welcome news that a serious pest of flour-mills has found access to some California mills. At the meeting of the California Entomological Society last week, Mr. W. G. Johnson of Stanford University read an essay upon the so called Mediterranean flour moth, which has been recently introduced into the State from the East. This moth is a very troublesome and destructive pest, as it not only destroys the bolting cloth, but also feeds upon flour and oatmeal, through which it burrows, leaving silken tunnels and thereby damaging the flour. The pupæ fill up the elevator shafts and otherwise the machinery. This pest was introduced into Canada a few years ago, and the Government took hold of the matter and had the mill thoroughly disinfected with steam and sulphur fumes. By these measures it was effectually stamped out.

In 1861 the famous Languedoc canal was completed. This gave France an artificial waterway 148 miles in length, with a summit level of 600 feet above the sea, and including upward of 100 locks and 50 aqueducts.

Olive Oil Machinery at the State University.

In view of the constantly increasing importance olive culture is attaining in California, it was decided during last year to establish, in connection with the Agricultural Experiment Station of the State University, experiments in oil-making with the different varieties of olives grown in the State. For this purpose the best machinery, representing the latest and most approved methods of the olive countries of southern Europe, has been secured, and experimental work would have been pursued this season if it had been possible to get a proper supply of olives. Offers to purchase olives were sent to a score or more of growers but it was found that, on account of poor crops due to the unfavorable season, none of the newer varieties of olives could be secured in sufficient quantity for the series of experiments proposed. The Experiment Station will, therefore, confine its efforts for this season to the testing of the machines, which it is hoped will be set up in a separate new building to start experimental work next year. The olive oil experimentation, under the supervision of the director of the station, is entrusted to the personal care of Mr. L. Paparelli, whose studies of the olive industry while connected with governmental institutions in his native Italy gave him excellent standing in this regard. The Rural is indebted to Mr. Paparelli for the interesting description of the appliances and the outline of investigations which will be made.

The machines that are now to be seen at the Experiment Station in Berkeley are three: 1. Pitter. 2. Crusher. 3. Press. The first two were bought in Spain from the manufacturer, and the third one was built in San Francisco, Cal., to suit the requirements of experimental work, by Toulouse & Delorieux, who submitted the lowest bid.

1. The Pitter.—It has been known for a long time that an extra quality of the oil is obtained from the flesh of the olive without the pit. Such oil is superior both for its delicacy and for its resistance to rancidity. Palladius recommended the practice of pitting to the old Greeks, and Pliny to the Latins. The old Romans also had the same conviction, as has been confirmed from the old oil-mill found at Stabia. Sieuve and Stanchowich, at the beginning of this century, had the same opinion, and ordered special apparatus for the purpose, but it has been only in these latter years that great attention has been given to this matter. Several competition prizes were established by the governments and societies for southern European countries for the manufacture of olive-pitters. At present it seems that the best pitter is that devised by Mr. Salvatella, of Tortosa, Spain, one of which has been purchased for the work at the University.

Salvatella's pitter has a hopper which distributes the olives to the cylinders in the interior of the machine. These cylinders, by a special arrangement, separate the flesh entirely from the pit without breaking the latter. Flesh and pits of the olives thus obtained are gently pressed to extract the virgin, the best quality of oil of the fruit, and afterward the pomace is introduced in the "crusher" mentioned below, in which it is converted into a very fine mash, from which, being pressed again, we obtain the rest of the oil contained in the fruit. Of course this oil is of a second quality.

The pitter may be worked by hand, by horse or steam power. When horsepower is used, the pitter works 45 gallons of olives per hour. The same power is sufficient to operate two machines.

The importance of this machine is such that it should be recommended to all those who want to economize capital and labor, while obtaining a product of high quality, commanding the highest prices on the market.

2. The Crusher.—This machine, manufactured also by Salvatella, crushes the olives between two grooved cylinders either in the fresh or in the dry state. Both flesh and pits are reduced in a short time into a very fine paste. It has, in one side, two adjusting screws for the cylinders, in order to regulate the fineness of the paste. When the machine is in operation, a vibrating cleaner separates the largest part of residues of stems and leaves, sand and other impurities that may be with the olives.

Like the pitter, the work with the crusher is very easy. It occupies a space of about three square feet and weighs about 660 pounds. It may be operated by hand, by horse or steam power. Its work is at the rate of about 45 gallons of olives per hour. The same power may do for two crushers, thus saving much time and money.

If only a second quality of oil is desired, the crusher is sufficient without the pitter. The frames of both the pitter and the crusher are of iron.

3. The press.—This has been made by Toulouse and Delorieux as above stated, and is a good specimen of the best type of screw-presses now used in olive-growing countries. It is small, but possesses a fair working capacity. It covers barely two feet square space and is said to weigh about 1500 pounds, the working mechanism included. With such a compact and comparatively light construction one would naturally class it among presses of low power, yet it is estimated that, owing to a clever combination of levers with which it is provided, one man using a lever-handle of two-feet stroke can obtain with it a pressure of 40 tons, which is sufficient for our purpose. The body of the press merely comprises a cast-iron base, two posts rising from opposite sides thereof, and a crosspiece uniting these posts at their upper end. In the center of the base which stands about a foot high, is placed a sheet-iron basket with perforated sides (that can be opened in two halves) into which the product from the pitter or from the crusher is put for pressing, and all around this is a deep groove through which the expressed oil flows out to spouts or discharge-openings to be found on opposite sides midway between the posts. The pressing is done by means of a follower entering the perforated basket from above and carried by a vertically-movable screw fitted in a nut or threaded sleeve formed in the central part of the crosspiece which joins the posts together. The screw, and consequently the follower, is moved to effect the pressing through the medium of a mortise-wheel firmly keyed to its upper end and a slotted collar having cotter-keys or gravitating catches adapted to successively engage the mortises in this wheel. Movement is imparted to this mechanism by a short lever formed integral with the collar and swung back and forth. Below this lever is another one adapted to work in connection with it and multiply the power. This second lever is pivoted to a short bracket projecting from the upper crosspiece of the press. The two levers, when used together, are coupled by a frictional pin seated in the lower lever and playing within a slot in the upper The press has thus movements of two powers, one produced by a single lever acting directly upon the collar and through it and the gravitating catches upon the mortise-wheel carried by the screw, the other by the same mechanism actuated by two levers coupled by a frictional pin. The speeed, of course, is in inverse ratio to the power developed. If rapid movement is wanted, the single lever is used, if power is the object, both levers are called into action.

The above are the machines that have thus far been provided, but the accessories, such as filters, vessels and other utensils, will be selected among the best of the modern industry, hoping that the crop of olives in the next year will be good, and that it may be possible to get the proper amount of the different varieties cultivated in the State, to start experiments.

Agreed Raisin Prices.

If raisin-producers did not reach everything they aimed at this year, they have certainly succeeded in putting themselves into a far more commanding position than they ever before occupied, and bid fair to find their future trade more satisfactory. One of the most hopeful features of the movement is that both dealers and growers agree to maintain a fair rate. The latest agreement, in which practically all concur, fixes the minimum prices, f. o. b. at the point of shipment, according to the schedule, as follows:

20-lb boxes raisins (clusters)	$2 00
" " " 3 crown choice London layers	1 65
" " " 3 crown standard London layers	1 45
" " " 3 crown choice loose Muscats, faced	1 35
" " " 3 crown choice loose Muscats, unfaced	1 30
" " " 3 crown standard loose Muscats, unfaced	1 15
" " " Seedless Muscats, fancy	1 25
Sacks loose Muscats, 4 crown	5
" " " 3 "	4½
" " " 2 "	3½
" " " 3d grade	3
" " " seedless	4
" " " "	4
" " " " fancy	5

If something like the above can be maintained, and they are certainly as low as the goods should sell, the raisin production will be freed from much of the anxiety and loss which have recently vexed those who have their money invested in this line.

The Pierce Grape.—We are indebted to the California Nursery Co., of Niles, for a liberal sample of the Pierce grape, or Isabella Regia, as it was first called by its originator. It is a glorified Isabella, a marked improvement on the old variety from which it is a sport. Recognizing its character, after adequate trial the grape has been largely propagated by the California Nursery Co., and plants are obtainable from them.

Profitable Physic.—The subjects of Great Britain are the most tremendous patent-medicine swallowers on the globe. During the past year the revenue derived from the three-half-penny stamp upon patent medicines amounted to $1,200,000. Licenses for the sale of patent medicines have increased 1340 in England and 111 in Scotland.

The result of the Presidential election in the United States was received in Italy with the greatest satisfaction.

Cleveland Carries the Country.

The Presidency, the Senate and the House of Representatives Go to the Democrats.

Cleveland has swept the country. Besides the solid South, he has carried New York, Illinois, Connecticut, New Jersey, Wisconsin, and probably Indiana, Ohio, Wyoming and California. Involved in this success is the next Congress, which will be Democratic by from 65 to 100, and the next Senate, which will be Democratic by a majority of from five to ten. In those States which remain steadfast for the Republican party, the majorities are everywhere reduced. It is, in fact, a tremendous landslide, an overwhelming defeat for the Repuqlican party.

Colorado, Kansas and Nevada will cast their electoral votes for Weaver, but in Oregon and North Dakota, where he was supposed to be strong, the adverse vote was decisive. As yet (we write Thursday A. M.), we have only general reports from the several States and cannot, therefore, give definite figures.

In California the count is not yet complete. In the hope of giving definite returns, our last forms have been held back fourteen hours, but the result is still uncertain. At 9 A. M. Thursday (the hour we write), 1477 precincts report 99,738 votes for Cleveland, 97,869 for Harrison and 17,805 for Weaver. The Prohibition vote is not given. It is probable that Cleveland has carried by a plurality of from four to five thousand. In the First Congressional District, Geary (Democrat) is elected to Congress over Davis (Republican). There are as yet no returns from Modoc county, but exclusive of this county the district gives Geary 10,539, Davis 6955 and the People's Party candidate 475. In the Second District Caminetti (Democrat) is elected. Incomplete returns give him 15,715 to 13,012 for Davis (Republican), and 23 for the People's Party candidate. In the Third District, English (Democrat) has 11,232 while Hilborn (Republican) has 11,172, while Lyon (People's Party) has 2,785. A partial count in the Fourth District (San Francisco) gives Maguire (Democrat) 11,385, Alexander (Republican) 10,186, Burman (People's Party) 1,295. Incomplete returns from the Fifth District indicate the election of Loud (Republican) by a narrow majority. In the Sixth District, Cannon running as the candidate of the Democrats and of the People's Party carries the district by nearly 5,000 majority. In the Sixth District, Bowers (Republican) is elected by a narrow plurality. It is still too early to estimate the complexion of the Legislature, but it is probably Democratic, and will therefore elect a Democrat to succeed Felton in the United States Senate.

In San Francisco the count is very tedious, but the indications are that Ellert, the Non-Partisan candidate, for mayor is elected by a narrow plurality. Scratching was universal among residents of the city, and the result is so mixed that neither party will be able to claim the administration. The Democratic vote was broken up and scattered among a multitude of candidates, but on those names where it was united it showed a majority over all of about 7000.

For the first time the Australian Ballot System was used in this State and with very general satisfaction. While it puts the voter to some little inconvenience, it is a bulwark of defense against fraud and bribery. It is perhaps natural in view of this fact that those whose interest lies in the corruption of politics should inaugurate a savage warfare against it.

The bearing of Mr. Cleveland in victory and of Mr. Harrison in defeat has been alike dignified and in perfect taste. In response to congratulations the President elect has spoken briefly and modestly, while Mr. Harrison has gone about his official business as if nothing unusual had happened. There was no trace of disappointment in his appearance or speech. He has already declared his purpose of returning to Indiana after his official term, but will, perhaps, spend some months in Boston as the guest of his daughter, immediately after leaving the White House.

Milk Solids Called Butter.

For many years men have been traveling in the East and selling a secret process by which it was claimed that more than twice the usual amount of butter could be made from cream by the addition of a harmless and inexpensive chemical. It seems that the South Australian Dairymen's Association has been investigating something of this kind. The Prairie Farmer says that Hon. Carl Wertz presented a paper claiming that cream churned with a small addition of "black pepsin" would make more than twice the butter and that the product would be more healthful, look better, taste better, keep better and sell better than ordinary butter. Upon his request a committee of three, one of which was an official chemist, were appointed to make a thirty days' test with twenty ordinary cows. The cream was thoroughly mixed and half was churned with pepsin, one teaspoonful to the gallon, and half without.

The cream made 348 lbs., 12 ounces and the half treated with pepsin made 884 lbs, eight ounces. The pepsin cost $4, and the increased value, reckoning both samples at 28 cents per pound, was $150.

The chemist's analysis showed that the cream contained 12 per cent butter, 10 per cent cheese, 13 per cent sugar, and four per cent other salts, making 39 per cent solids. In ordinary churning 15 per cent of these entered into the butter and the balance went with the buttermilk. By using the pepsin 37 per cent entered into the butter and two per cent into the buttermilk. Then the committee goes on to argue that, whereas cheese that contains all the butter in cream is more healthful than skimmilk cheese, and, whereas nature has designed milk as the most perfect food for animal life, therefore that product made from milk which contains the original elements in most exact proportions is the most wholesome food. It is claimed that "black pepsin" is a harmless salt; that it simply unites all the solids of milk; that it combines cheese and sugar with the butter; that it violates no law; that it produces more than double the yield of better quality without additional expense. Samples of each churning were exhibited by the committee to the association. Upon the evidence of the exhibit and their tests they made the above claims.

We publish this report with the hope that it may save our enterprising readers the expense of the recipe. They will know more about the validity of the claims set forth when they have given it a thorough and careful trial. For ourselves, we do not think anybody could mix butter, cheese and sugar so skillfully as to make us think it was butter. Still it might be good. We think it should sell on its merits as "pepsin butter," "Australian butter" or "combination butter." Let us hear from all those who try it. Remember that only *black* pepsin will do, and use a teaspoonful to the gallon. Parties are working this country, selling a recipe something like that announced from Australia. In fact, it is not a new thing in this country.

Destructive Dogs.

LARIBEE, HUMBOLDT CO.

TO THE EDITOR:—One of the worst plagues of sheep raising is the dog that will kill sheep. It may be an easy matter for a man with a few sheep that stay around home, and at night sleep near the house and barn, to keep away stray dogs; but where the band runs up into the thousands it is quite another matter.

If you can catch a sheep-killer when he first starts out and is still fresh at his business, then you fix him, though as soon as he becomes up to the tricks of his business, you will have to lie out many a cold night to catch him. When wild animals prey on sheep they often move onto another bedding ground and for a time they are not generally disturbed. It is useless for a band of sheep to move around to escape the ravages of dogs.

Where the rub comes, the damage is invariably done by a lot of worthless curs that are of no use to their owners or any one else. I have in my mind a man who for years has been credited with a sheep killer, and as he is on bad terms with a neighbor who runs sheep, it is claimed that he lately made his brags that he would keep a dog that he knew killed sheep, to even up accounts with his neighbor. Most people do not care to go to law to settle a small dispute, and as I said before, dogs get so sharp that it is next to impossible to get sufficient proof to warrant you to begin proceedings for damages.

This dog question is one of the few disagreeables that stockmen have to face. Some solve it by keeping out poison on their ranges the greater part of the year; many more rely on catching a dog in mischief and then kill him, if you can get the chance, and if you don't get the chance, insist on the owner taking care of the killer. In dealing with this, as in everything else, a person wants to be able to judge men, and if he finds a man willing to take care of his dogs, be lenient with him and try to be friendly, but always remember that charity begins at home and try and protect the old ewe that nurses the twin lambs with fleeces as white as snow. ED. ROBERTSON.

Letter from Mr. J. V. Webster.

CRESTON, CAL., NOV. 1, 1892.

TO THE EDITOR:—In the issue of your paper under dates of the 22d and 29th of October, there appear editorial comments "From an Independent Standpoint," that are worthy of the highest commendation. So rare, indeed, do we find able and independent criticism on the living issues of the day, unbiased by subserviency or partisan prejudice, that it is refreshing wherever found.

The fact is generally recognized, and the conviction growing continually deeper, that social and political reforms never come through the influence of a subsidized, timid or halting press; and, since the conditions, financial and otherwise, controlling the direction of the average organ are so embarrassing or degrading, the occasion is most rare when commendation can justly be conferred.

I am conscious that it is a most uncommon occurrence to find a rural paper with an ambition higher than dissertations on the best methods of producing pigs and potatoes; yet, while recognizing the necessity of this department, you had as well expect the farmer to be satisfied with sauerkrout diet the year round, as in reading nothing but matter referring to theories and experiences in vegetable and animal production. 'Tis true there *was* a time when nothing more could be expected of the farmer's paper, because the impression generally prevailed that he had no mind above the contents of a turnip.

But the conception is beginning to dawn on the people of other trades and callings that the tiller of the soil is something more than "a clod-hopper," and that without his influence and progeny the cities of the land would rot and disappear in the midst of their excesses and seminal weakness, engendered by voluptuous living, love of ease and a consequent indisposition on the part of the *refined and affluent of the softer sex to assume the duties and responsibilities of maternity.* This fact being recognized by every thoughtful mind, there is a general tendency toward a greater intellectual development among the rural people, as the chief source whence must come and sustain the life-giving principle of republican institutions.

It is therefore encouraging to find journals like the RURAL PRESS recognizing these facts, and therefore deprecating partisan bias and political methods that tend to warp the very soul out of every honest, patriotic conception, and would sacrifice every principle of honor in order gain partisan ends.

I fully appreciate the embarrassments that surround the liberal work you have undertaken. It means the loss of patronage on which most publications largely live. Partisans, trusts and corporations will not subsidize the RURAL when it speaks from an "Independent Standpoint," as it did on the 22d and 29th inst. It requires ability, transcendent nerve and the courage of deep conviction to face these powerful elements which are dragging the life of the nation down into the dust of humility.

Having been so often deceived, farmers have grown seriously suspicious of every fulsome advocate which arises among them; consequently their confidence cannot be regained by plausible fallacies or spasmodic efforts that carry not with them truth and continuity of purpose.

No jumping at conclusions without profound deliberation will endure. The farmers of the State and nation are looking for advocates who have the ability and integrity to lead them out of the ruts and quagmires into which they have in a measure fallen, to the end that unanimity of sentiment may prevail among them in all things pertaining to the welfare of the nation, coupled with their own advancement, intellectually, socially and financially.

Now, Mr. Editor, if you have fully made up your mind to really cast your fortunes with us in all things that pertain to the welfare of the farmer, with that intelligent continuity of purpose necessary to accomplish anything great or enduring, you will find the toilers of the nation moving to your standard as move the meandering streamlets into the broad bosom of the ever-enduring river.

With my experience in conducting the *California Patron* for five years, I am fully conscious of the sacrifices you must make in meeting these urgent demands of the farmer; but from the liberal and painstaking work to which reference has been made, you have manifestly resolved to make the RURAL PRESS the independent exponent of the farm and in harmony with all intelligent farmers.

If this conception is faithfully adhered to, with deep solicitude to be always right and liberal in your counsel, the RURAL will ultimately reach a field of usefulness and prosperity uncommon in this age of the world. J. V. WEBSTER.

Vine Planting.

GLEN ELLEN, NOV. 1, 1892.

TO THE EDITOR:—I would like to have the benefit of the experience of some of your readers relative to the best method of laying out a vineyard for wine grapes. Some recommend 7x7 feet, others 12x4 feet, etc., etc. If 12x4 is considered best, should the rows be easterly and westerly or northerly and southerly? From personal observation, in vines planted close together, say 7x7 feet, the outside rows facing the west generally bore the heaviest crop, which seems to be in favor of the 12x4 feet rows. Please invite opinions on the above. GRAPEGROWER.

[These are timely subjects for discussion. A very valuable general essay on vine planting will be found on another page of this issue.—ED. PRESS.]

A RECENT Fresno dispatch reads: "A report from a majority of the vineyards says that the raisins are drying very well in spite of clouds and threatened rain. In some vineyards the precaution has been taken once or twice to stack the trays on account of the lowering condition of the heavens, but in each case it proved an unnecessary precaution. The raisins are rather surpassing expectations. They are not only of a quality better than had been expected, but in most vineyards the yield is above the calculations earlier in the season. The shipping of large quantities of the second crop north for brandy will furnish a profitable way to dispose of that product and at the same time will tend to lessen the total output of the raisin industry of this county, thereby helping to strengthen prices.

CHARLES BEAN, Mrs. Jessie G. Olin and Henry Hart, property-owners on the Mabury road, have filed a notice of intention to form an irrigating ditch company to conduct waters from the Penetencia creek, Santa Clara county, southerly to Mabury road, where they will be divided and distributed along the line of the signers' property.

Among the Orchards of Contra Costa.

MARTINEZ, Nov. 7, 1892.

TO THE EDITOR:—As there are almost 4000 acres of fruit in this county, located near the great cities; as it has frequent trains running through valleys where at least ten times as much more fruit might be planted with good results; as its attractions of climate supplement its advantages of location, it is well worthy of more attention than it has received.

Stopping at Martinez, during a recent visit to the county, the first object of interest was Duane Bros.' nursery. The founder ran away from school when a boy of eight because he loved to work at trees so well. After three whippings his father told him to work until he had enough of it, and although he has been eight years in California since he grew to be six and a half feet high, he has not enough of it yet. He was so delighted to find some one interested in fruit that he drove me all day among the orchards. The valleys of Contra Costa are small but very fertile, as they receive the wash from the hills, are generally well drained by deep gullies and there seems to be a good supply of moisture not too far from the surface. The climate varies with the protection that the hills afford to the winds from the bay. It should be classed among the coast climates. Results show that many locations are specially favorable to almonds.

At Danville there is, back of Webster's store, a Languedoc about 30 years old, two feet in diameter, 40 feet across the top and more than 40 feet high. Many lower limbs have been cut away, yet there were enough nuts for every one that passed to knock down a pocket full; for the owner to gather 100 pounds and leave at least ten pounds now on the tree.

Rev. Mr. Burgess, of the same place, gathered a little more than nine pounds each from his four-year-old trees. J. D. Smith had 4000 pounds on less than an acre of seven-year-old trees, and a seven-year-old tree in Concord bore 70 pounds of nuts. These have sold at prices ranging from 12 to 14 cents. Heavy rains two years since showed the necessity of good drainage for the almond.

The pear stands next as a favorite, especially the Winter Nelis, which matures well and ripens so late as to be in great demand. The soil of Contra Costa is generally heavy and specially well adapted to the pear. Six hundred acres are planted to this fruit. Apricots generally do well and the trees show a fine growth, save in a few instances where poor cultivation and crops raised between the trees have rendered success almost impossible. The Blenheim is a favorite variety in Contra Costa. Duane Bros. have a tested variety of great excellence to put upon the market next year. There are 287 acres of apricot trees.

There are 160 acres planted to olives, but few are in bearing yet. At Mr. Busby's orchard near Concord we saw 77 acres of the very finest Mission trees I ever saw. They say that the olive is of slow growth, but here is a grove of four-year-old trees that will average nearly six inches in diameter. Its owner, the glove-manufacturer on Market street, near Sansome, is so proud of the grove that he would hurry out by the next train if he heard that a grasshopper or a scale had appeared. Adjoining his ranch is another, belonging to Mr. Sutton, which is equally attractive and largely planted to almonds and apricots. These two places, of 102 acres each, were planted and cared for mainly by Duane Bros., and they have reason to feel proud of as good results, thus far, as I remember to have seen anywhere in travels through most of the orchards of California. As correspondents often want to know price for planting and care of trees, it might not be out of place to say that work is done in Contra Costa at $20 to $30 per acre for furnishing and planting deciduous trees, and $10 per acre, annually, for first-class care, on heavy ground. At the estate of the late Dr. Strentzel, in Alhambra valley, we found its present proprietor, John Muir, the famous author, located in a country home of ideal beauty, upon a knoll, resembling the work of some ancient moundbuilders, now transformed into a flower-garden surrounded by a valley covered with trees and vines. Shipping grapes are a specialty. Certain localities in this valley are specially noted for the high color and fine quality of their shipping grapes.

John Swett, so many years a popular public-school principal and at present superintendent of San Francisco schools, has a place in which he takes great pride. The boys say that whenever he comes out from the city they get nearly worn out trying to keep up with him. He rushes over the hills just as schoolboys do when let loose to play.

One of the famous Hatch orchards and a large planting belonging to Mr. Hemme of Hemme & Long are located at Alamo, on the railroad that runs up San Ramon valley. Mr. Hatch is reported to have said that he considered that intrinsically the best land that he farmed.

Both A. L. and H. H. Bancroft have fine large places in Nassau valley. Near Danville Messrs. Baldwin & Stone have a fine nursery stock on soil specially well adapted to the purpose. They have more than 20 tons per acre of pumpkins on the land they will plant to nursery next spring.

This county offers great attractions to San Francisco business men who desire to own orchard property in the country, and will largely settle up with such.

In some parts of the county they have not recovered from the idea that the new railroad opened up the only really desirable country in California, and that people must have it at any price they choose to ask. The consequence has been that some very desirable settlers who were willing to give liberal prices have been unable to buy.

When one sees how things are working in San Ramon valley, he cannot blame a railroad very much for attempting to control land where they enter a valley so narrow that they must have some better paying freight than hay or grain to earn interest on their capital.

Hon. Chas. Wood has a good example of mixed farming that they say cannot be made to pay in California. He has 700 acres embracing almost all grades of hill and valley land, and produces fruit, grain and stock, with the dairy and poultry as auxiliaries. While fine chickens are colonized from one end of the orchard to the other, the aristocrats among them have special quarters where many separate yards are inclosed by wire netting. He finds that early pullets of such breeds as White Leghorn and some others will "earn a dollar before others turn a wheel." That is to say, they will have laid two to three dozen high-priced eggs in fall or early winter while others will not report for duty until spring.

A creek from Mt. Diablo has cut a deep gully through his place, and a very small stream runs through all summer. He has taken advantage of this by building a strong dam that raises the water nearly to the surface to benefit his orchard and supplies a ram that furnishes all the farm buildings with water. It has needed in repairs only one leather valve during ten years' constant work.

Their system of grain-farming on the adobe hills is to run a heavy cultivator around the hills, then seed and cross-cultivate in a direction as nearly opposite as possible. This they do soon after the first rains while they can stir all the moist soil. By seeding one year and pasturing the next, they get an average of a ton per acre without perceptible exhaustion of the land. Many of these wheat-fields have never been plowed, and whenever they are not sowed to grain, produce a heavy growth of wild oats and burr-clover.

Two miles' walk over the hills takes us to Oakwood Park Stock Farm, where the famous Steinway and his family of fast ones are kept. There are six thousand acres in the farm, and besides large numbers of work horses and 300 trotters. Mr. Boyd has one hundred Angus-Aberdeen cattle, a hundred Devons and sixty Shorthorns. They are expecting to make a fine exhibit at the next State Fair for the first time in many years.

It was a great disappointment to all on the farm that Billy Woods should have broken on the homestretch after having made the half at Stockton at a 2:03 gait, but they have confidence that he will break the record before the season is over.

Through many changes of ownership, Mr. Geo. A. Wiley has had the management since the farm was started, and we never saw another where they seemed to have been so favored with all the money they needed to do anything they chose.

It is understood that Mr. Boyd, the present owner, intends to make it headquarters for scientific breeding, and we shall expect to hear a great deal of it through our columns. Many of the buildings and animals would make fine illustrations.

As Martinez is the nearest railroad point to the great orchards of the San Joaquin where deep-water vessels can be loaded, and it has rail communication also with the orchards of Contra Costa, it is a surprise that they have not a large cannery located there.

Reports of the State Board of Horticulture show that there are 3910 acres of fruit trees planted in the county, of which more than one-half are of bearing age. A cannery would have all the advantages of a supply of fish and vegetables in season and a great fruit country to draw upon. The climate is desirable for residence, and with such an enterprise, its schools would be largely attended.

F. S. C.

THE DAIRY.

Scientific Dairying as Practiced in California.

[Second Paper.]

Written for the RURAL PRESS.

The Babcock tester should show that not over one-tenth of one per cent of the butter fat goes out with the skimmed milk, and that less than three-tenths of one per cent is in the buttermilk.

The large-size De Laval centrifugal separator keeps up with 12 or 14 milkers and separates 1200 pounds or more per hour. It is very satisfactory. The ordinary farmer would be astounded should he discover the per cent of his gross income thrown away in skimmilk and buttermilk. A creamery man, who gathered cream of 5000 cows in Iowa and had experience in several sections, estimated that one-third the butter went out in the skimmilk under the gravity process as practiced there. Under proper conditions the gravity process makes almost a perfect separation, but people were careless enough to suffer this loss. In hot weather the Babcock tester will often show 20 per cent of the fat in the buttermilk as it ordinarily comes from the farm churn.

Until within the past two years, this was an unsettled question of frequent discussion in the dairy papers, "Why do we lose so large a per cent of the butter in hot weather?" It is a mystery no longer. Whenever cream cannot be ripened at a lower temperature than 47° there is a great loss of butter fat. Such problems are solved by the careful experiment and scientific study devoted to the subject at dairy schools. Such an institution is one of the great needs of California dairymen. We can hardly hope to compete with scientific methods unless we enjoy similar advantages.

The proper curing of cream is a very important factor of success. Mr. Steele finds best results when ripening at so low a temperature that the cream will not reach the first stage of acidity in less than 36 hours.

Separation can be made most perfectly by the extractor if milk can be reduced to 45° temperature, and Mr. Steele thinks the method would be the most desirable for our mountain counties and other sections that depend upon marketing packed butter. He thinks such would keep the best, because most free from any foreign substance.

The care of calves is one to which Mr. Steele devotes considerable attention. He feeds whole milk for a few days, gradually reducing with a percentage of skimmed milk, and adding jelly or blubber made from cooking flaxseed to take the place of the cream removed. Then he adds bran, shorts, meal, oats, etc., to the milk and keeps both hay, grain and salt where they can have access to it at any time. By this system, calves at six to eight months of age are often good beef.

Mr. Steele speaks very highly of a veterinary surgeon's instrument that has been of great service to him with barren cows.

Prices of cows he regulates by their performance. If record shows that the milk given by a cow, multiplied by the per cent of butter, gives her three pounds daily, her price would be as much as $200; and if she made one pound or less, he might let her go for $30, as he did a handsome young thoroughbred Jersey the other day. From his herd of 500 to 600 cows, he sells many for beef every year that do not come up to his dairy standard.

Instead of competitive trials of dairy cows on the fair ground, the Ohio plan, indorsed by *Hoard's Dairyman* and warmly commended by Mr. Steele, is to have an authorized representative of the society visit each of the competing dairies to make and report tests and to base the milk and butter records upon the year's yield of milk verified by sworn statements of all principals and employes engaged in conducting the test. Hardly any cow can do herself justice when under the strain produced by excitement and change of feed. Under this system, the exhibitor pays for the inspector's time and the State for his expenses. When Holsteins giving 62 pounds daily took first prize at Sacramento, Mr. Steele had one giving 96 and another 102½ pounds of milk.

At this time of the year, when feed has suffered in quality both from grass and rain, and in many instances cows are drinking from stagnant pools, there is not sufficient acidity to neutralize the alkali in the stomach, and the gall overflows, causing inflammation of the manifold or bladder. This has been a malady so serious that 20 cows have been lost from some dairies in a single night. The dairyman should watch the condition of his cows and their feed closely, and whenever there is a tendency in this direction, meet it at the door with a change of feed. At this point, Mr. Steele finds one of the great advantages of ensilage. It supplies that particular want better than any food available under such conditions.

Owing to a mistake in directions, one of the men fed Artis Carissa nine pounds of oilmeal, instead of three, at one time during her test, and it took a long time to get her in condition again. As it was, she came only 40 pounds short of the second butter record of the world. With his cows strong in Aaggie and Netherland strains, Mr. Steele proposes to couple a bull of the Pauline Paul and Pietertye families, expecting to develop a world beater from some of their produce. These families have averaged upward of 22 pounds per week for several generations, and Pauline Paul holds the world's record with 1153 15-16 pounds to her credit in one year.

He is adding one modern improvement to another in his dairy buildings. The floor of bituminous rock is quite an important feature, with its facilities for perfect cleanliness and saving of manure. The cows can drink without leaving their stanchions, and get plenty of clear water at any time. Tracks connect the silo and hay-barn with the feed-stables. When the buildings are complete we hope to have them illustrated in the paper.

It is an ambition of Mr. Steele to reduce dairying to an exact science in San Luis Obispo county, and he offers liberal premiums, besides those given by the county, to stimulate emulation among his neighbors. He makes a large exhibit, but does not enter for competition. Perhaps he may soon compete at the State Fair, and if Stanford, Hall, and Burke enter the lists at the same time, we may look for a Holstein exhibit in which every Californian can take just pride.

Those who have followed these papers carefully will note that the cows go dry while feed is dry, and so come in milk when in good condition, but without liability to milk fever common to such great yielders. They begin giving milk when butter is high and he gets best pay for the extra feed. Their ration is so regulated as to produce most butter and develop the best animal. The milk is handled to secure the best percentage of cream and save the skimmilk in perfect condition for the calf. The cream is ripened, butter made and marketed in a way to secure best results. At present a 26 ounce roll is selling for 70 cents wholesale in Los Angeles. The land is so managed as to produce a well-balanced ration at minimum cost. The whole business is managed and information so freely imparted as to show that Mr. Steele is living up to the ideal that the prosperity of the individual depends upon that of the community to which he belongs.

Fresno Farmers' Institute.

Attendance at Fresno Co. Farmers' Institute, held recently at Selma, was limited to 60 in the afternoon and 100 in the evening by conditions of the weather which compelled most farmers to stay at home and care for their raisins. There was animated discussion of the West Side irrigation question, the problem of farm dairying and plant diseases.

Prof. C. W. Woodworth of the State University, Berkeley, favored the audience with a very scholarly illustrated lecture upon plant diseases as proceeding from minute vegetable organisms. He was consulted regarding several specimens of diseased plants, and gave valuable advice as to treatment and prevention of several diseases concerning which he was questioned.

Discussion was very animated and a lively interest was shown in the questions and answers.

The next meeting will take place in January at some town in Fresno county yet to be chosen. Indications are that the meeting will be very lively and instructive.

SACRAMENTO CITY is spending between $20,000 and $25,000 this year in strengthening and raising its levees.

THE VINEYARD.

Winter Work in the Vineyard.

NAPA, October, 1892.

TO THE EDITOR:—Work in the vineyard extends over the whole year and is of so manifold a nature that it cannot be outlined in a paper of a page or two, even if handled in the most concise manner. I will therefore confine myself to winter operations, which include choice of location, planting of new vineyards, pruning, plowing and grafting, although the last named may be continued into the summer months.

SELECTING A LOCATION AND SOIL.

This is very important, as too many vineyards have been planted already without due regard to this. Quality and quantity of fruit should be our aim and both can be attained by proper selection. The soil should be loose and naturally well-drained, it need not be very rich, but still be rich enough to secure a good growth, deep and mellow, so that it will retain sufficient moisture, if properly cultivated; and if on hillsides not too steep. Avoid alkali and stiff adobe lands; the first is not fit for grapes in any shape, the latter too difficult to work properly, though generally fertile enough, if kept well pulverized. I prefer, in this State, an exposure from east to northwest to those sloping south or southwest. The latter are too much exposed to our afternoon sun, which is apt to scorch the foliage and fruit. The soil should be at least two feet deep above bedrock so that the roots can have ample space. Hardpan should be avoided, also lowlands subject to late frosts in spring, or early frosts in fall.

PREPARING THE SOIL AND LAYING OFF.

Commence with this as soon as the soil has been moistened to a sufficient depth by fall rains. The cheapest way is to take a good strong plow, with three good horses, plow a furrow as deep as they can pull it, the deeper the better, and follow this with a subsoil stirrer and another good team, which will simply loosen the soil without reversing it. If it can be stirred to the depth of 18 inches all the better. The more tenacious the soil, the more important that it be well and deeply prepared. If it can be plowed a second time, just before planting, all the better; but it should be done when the ground is dry enough to pulverize well. Do not plant too early, as the soil should be somewhat warm, especially where cuttings are planted. Level off with clod-crusher or roller. For laying off we want markers, small stakes about 14 inches long and ¼ to ½ inch thick; three lines, two to reach the full length of the block, and one to reach across. Four men can do the work most expeditiously and correctly. As to the proper distance opinions differ. I believe that most of our vineyards have been planted too close and I am planting now 6 x 10, perhaps 6 x 12 would still be better, in blocks of 2½ acres, the blocks being half as broad as long. I like this better than the old system 7 x 7, or 8 x 8, for several reasons. The roots of the vine have ample space to spread in the wide rows; it gives freer circulation of air, and even admits of hauling between the rows, either with wagons or sleds, which facilitates manuring, gathering the fruit, etc., while it admits of cross-plowing, even in the narrow rows, and more work can be done with a double team than by the old square system.

Commence by laying off the avenues first, making the central one on the most accessible ground. Establish the outside rows by measuring around the block at right angles and putting down your markers. When the outside lines are established, draw your lines from the next marker in the crossrow at each side of the block. Then let two men take your short line across the block, stretch it well, while one man is at each side of the block with the markers. The markers are put down right where the long lines and the short one cross each other, and as soon as this is done, move to the next marker, thus staking off two rows at the same time. Repeat this with the next two rows until the block is finished. Four active men can thus stake off a large lot in a day, and if they are precise and careful, they will have straight rows at equal distances.

WHAT AND HOW TO PLANT.

After the terrible destruction by phylloxera in our best districts, there ought to be but one answer to the first, and that is, "Plant resistant stocks!" Of these, the Riparia seems to have been most successful everywhere, and, as it is also very easy to propagate, the most available and cheapest, though the Lenoir and other aestivalis varieties have also done well. The Rupestris does not seem to succeed so well, suckers badly, and hardly takes the graft as well. The Californica, although a good grower on moist land, is not altogether resistant nor adapted to dry soils. Rooted vines of Riparia can now be had for $10 to $15 per 1000 and cuttings at from $2 to $3 per 1000, and I would advise to take the first, as they are sure to make a good and even stand. If they cannot be obtained, cuttings may be used, but I would then put two cuttings with each stake, putting the lower ends of the cuttings six inches apart. If both grow, one can be taken out the next fall to fill vacancies, or make new plantations.

We will suppose the ground in good order for planting, well pulverized and not too wet, so that the soil can easily be worked in among the roots. Now let one man make the holes with a spade, fronting or toward the hillside, by putting his spade down just above the marker, as perpendicular as he can, throwing the soil above the hole just made, making the hole about 10 to 12 inches deep. Another follows, with the roots or cuttings in a pail of water, placing the lower end of the vine from 10 to 12 inches deep, spreading the roots evenly, and then drawing in well-pulverized, fine soil among and over them with a hoe. As soon as the roots are well-covered, firm the ground around them with a pressure of the foot and then fill up entirely with loose soil. It is very material that the roots should not be exposed to drying winds at any time while out of the ground, and that the upper end of the vine should be right at the stake; hence the necessity to keep them in a pail of water. Plants of this kind will make healthier vines than those planted much deeper. If the ground is well pulverized below, the roots will penetrate and seep it instead of being crammed down into the cold subsoil, away from atmospheric influences.

PRUNING, STAKING AND TYING.

Where resistant vines are planted, it will not be necessary, before they are grafted, to prune systematically, and as I am not in favor of verv early grafting, we will at once suppose the vine to be sufficiently established to bear at least a partial crop. The young vines may be cut back some to facilitate working among them and to obtain the wood for cuttings, but this is all that is necessary.

There are two systems of pruning in vogue in this State which are adapted with most varieties, but can be modified somewhat to suit the habits of each variety. The one is the so-called stool or goblet pruning, which is adapted to heavy bearers, such as Zinfandel, Green Hungaria, Palomino, Burger, etc. The vines when once established by this method, although they should be staked the first few years, will need only stakes about 2½ feet long, and can dispense with them altogether after a few years. The other method, which may be called the cane and renewal training, is better adapted to varieties that do not bear so abundantly or do not fruit so readily from the lower buds. The Riesling, Chauche Gris, Petit Syrah or Cyrene, Semillion, Sauvignon Vert and many others require this training and stakes from 5 to 6 feet long.

Let us suppose the vine fairly established, with three or four strong canes and a head from 12 to 16 inches above the ground. We can commence pruning as soon as the leaves have dropped in fall. For stool pruning our object is to form an open and well-balanced head. Supposing the canes to have started from one-year-old wood, we will find them opposite each other alternately—the upper one on one side, the next one opposite to it on the other side, the third one below the first, the fourth below the second. Each of these we cut back with a sloping cut, above the second or third head. We can vary the number of buds on each vine according to its strength, for the best results are only obtained by a nice balancing of the powers of the vine. If we prune a weak vine too long, we will overload it, and the result will be feeble growth and imperfect fruit. If a vigorous vine is pruned too short, it will make a coarse, weak growth, will be more subject to mildew, coulure and other diseases, stagnation of sap and consequent black knot; the fruit is also more succulent and watery. By pruning each cane alternately to a right or left bud, we also distribute the young growth from these buds more evenly to all sides, and thereby balance the vine.

In pruning to canes, the head or stool of the vine is established in the same way and at same height; but instead of spurs, we have say three canes of from 18 inches to two feet in height, according to the strength of the vine, and these in a triangular shape opposite each other.

If the vines have not been staked already the season before, it ought to be done now after the brush and trimmings have been picked up. This is also the time, just after pruning, to select wood for grafting and cuttings. For grafting, select the best short-jointed and firmest wood of the size of a common lead pencil or even somewhat larger, and as straight as can be had. Cut in lengths of 18 to 20 inches, tie in even bundles and bury them in a cool place, with the upper buds downward, and covered entirely to exclude the air. This retards the upper buds from starting, and they can thus be kept until the middle of May, if necessary.

Drive your stakes as close to the vines as practicable and on that side which is most exposed to the prevailing winds. Drive them down firmly with a wooden mallet, so that the winds cannot blow them down in summer. Nothing is more detrimental to the vine than to be blown over in midsummer with all its tender fruit suddenly exposed to the scorching sun. The best tying material I have used yet is No. 16 annealed wire, cut into proper lengths, with a cold chisel. This is passed around the canes and stake, and with a simple twist of both hands, both ends are hooked into each other. By untwisting and stretching them in fall, they can be used again, and pruning and tying can be done at the same time. These wires will last for five or six years. The next best material are the leaves of the dragon-tree (*Dracena Draco*) as well as the leaves of nearly all the species of Dracena or Yucca. The *Formium Tenax* or New Zealand flax is also fine material, but rather difficult to grow, and not so easily obtained. These leaves, when soaked in boiling water, can be torn into strips, and are much more pliable and stronger than the so-called grape twine. Only the dry leaves are used, and one tree furnishes an immense quantity. The tie should be made just below the upper bud, so that the cane cannot bend over. With a little attention, the canes can be pruned a uniform length, so that one tie will do for all.

The following seasons this pruning can be varied, according to the strength of the vine, by cutting the old spurs back to the lowest shoot or cane, or, if the vine is strong enough, leave the double number of spurs, or even treble in some cases. With the long cane varieties the old canes are cut off, and then new ones of last season's growth take their place, with as many additional spurs near the head of the vine as may be deemed advisable. Always bear in mind a two fold object: First, to balance the vine by an equal distribution of fruit and foliage on all sides and to admit as much air as possible. Second, to prune so as to produce the most perfect fruit, and the most thoroughly ripened and perfect, medium-sized wood for the next season's bearing.

PLOWING THE VINEYARD.

This can be done as soon as pruning is finished, and the brush picked up and burned. For the first plowing I think it advisable to plow from the vines, commencing in the middle by turning a furrow in the center with a two-horse plow, and returning throw the other furrow against this. Follow this up as far as practicable without coming too near the vines, then finish up with one horse and a vineyard plow, which will not leave more than six inches around the vines, which can either be stirred with a two-pronged hoe or spade around the vine. Then run a harrow over the plowed space, leveling and pulverizing the ground. The second plowing and cultivating properly belongs to the summer work.

The plowing need not be very deep, not over six inches, but much depends on its being done at the right time, when the soil is in the best condition to pulverize well. It should be neither too wet nor too dry.

Several gang plows have been invented to turn two or more furrows at a time. One of the best of these is made by Mr. H. Hortop, of Rutherford, Napa county. It is very compact, being not much longer than a common plow, with a small wheel in front in the center to regulate the depth. A strong two-horse team can do very good work with it on level land and loose soil.

GRAFTING THE VINE.

After a practice of 40 years in grafting the grape, and trying hard to find the best and safest method, I have arrived at a few principal rules, which give me the best results and the most satisfaction:

1. Wait until your stock is strong enough, say at least an inch to an inch and a half in diameter, so that it will firmly hold the graft without tying or bandage.

2. Select the very best wood for your scions, firm, well-ripened and close-jointed, not less than the size of a common lead pencil; if double the size for large stocks, all the better. This ought to be kept in a cool place in a dormant condition.

3. Graft not too early. The sap should be in rapid motion, so that the junction can take place immediately.

4. Use no bandages or wax of any kind. If you close the wound too tightly the graft is in danger of being drowned and soured.

5. The simplest methods are the best, if properly performed.

The objects to be gained by grafting:

First—Rapid propagation of new varieties.

Second—Early fruiting, as they will bear a few bunches the first season and a full crop the next.

Third—Changing worthless varieties into valuable ones.

Fourth and most important, changing nonresistant vines into resistants, by grafting on resistant roots, and increasing production.

Fifth—Increased fruitfulnes.

We will now come to the operation itself:

The best time I consider here to be the month of April, just after the first plowing, when the ground can easily be taken from around the roots. Of course this will vary in different sections of the State. I have had good success when the young growth on the vines was six inches long.

The tools used are: A sharp, thin-bladed knife to cut the scions, a sharp pair of pruning shears, or a saw where the stocks are very long, to cut the stock; a grafting chisel with a thin blade 2½ inches broad and a wedge at one end to hold open the cut, and a wooden mallet. These are the tools for the grafter. The work can be best divided thus: One man to dig around the stocks with a spade, the next to cut off the stocks, the third to cut the scions and insert them, the fourth to cover up. If the stocks are grafted above or near the surface one man may perform both the first and last operations.

If resistant stocks are to be grafted, either above or near the surface is the best; as the graft should not be allowed to make any roots. After the ground has been cleared away, select as smooth a place as you can find. Cut the stock about one and a half inches above a joint or node, to prevent its splitting too far; then, if the stock is not too large, make the slit or longitudinal cut also with the shears, keeping the blade where you intend to insert the scion, to prevent bruising. Take the scion, if the stock is strong enough, 18 inches long, cut to a long, sloping, smooth wedge, just below an eye, and push it firmly down into the cut, holding it open with the wedge of the grafting chisel if necessary. The success of the operation depends mainly upon the inner bark of the stock and the scion uniting, and as the outer bark of the stock is much thicker than of the scion, the scion ought to be set so much further in; the first bud of the scion should be about even with the surface of the stock. It needs nothing further than a little moist earth pressed on the cut and split, and the whole covered up with well pulverized earth to within the last two buds on the scion; this will make a false surface around the junction and prevent drying out.

If the operation is performed on large, old, vinefera stocks, simply to change them into something better, I prefer to go deeper, and insert two scions, one on each side. If both grow, the weakest may be cut off next spring.

By taking such long scions we equalize the force of the stock and scions, as six to nine buds will elaborate more sap than two to three, and besides, as the best growth will be from the upper buds, we establish the head where it ought to be, about a foot above the ground. The grafts should be staked just after grafting, and kept tied during the summer. All this being carefully done, there will be very few failures indeed.

VARIETIES TO GRAFT.

Their choice is rather difficult, as varieties which will do best in one locality will but poorly succeed in another. I will only name a few which I have found most successful for wine in this locality.

For red wine, in favored localities and hill land, Zinfandel, Mondcase, Petit Syrah or Cyrene, Petit Bouschet.

For white wine, Green Hungarian, Semillion, White Pinot, Sauvignon Vert, Palomino.

These will produce both quantity and quality. For raisins, Thompson's Seedless seems to combine, with proper pruning, both quantity and quality. It is a good bearer, dries easily and is superior in spiciness to the Sultana.

For table and market, the Flame Tokay is perhaps superior to any in keeping qualities and the price it brings,

though Black Ferrara, Emperor, Rose of Peru and even Malvoisie have their admirers.

Other operations belong to "summer treatment and cultivation." GEORGE HUSMANN.

HORTICULTURE.

Almonds and Varieties.

An essay read at the October meeting of the State Horticultural Society by Joseph C. Shinn, of Niles.

Since the last meeting of the Society I have picked up all the points that I could in regard to almond-culture and though I have not been able to spend as much time on it as I wished to do, still I have seen a number of the prominent growers in our county and learned mere or less of the history of the different kinds, and got the opinions of these gentlemen as to which are the best locations for almonds, what are the best kinds and what effect soil has on this nut. Our part of the country, i. e., Washington Township was one of the first localities in the State to attempt almond culture and a man named Mock, who was running a small nursery near Alvarado in the early 50s, brought out from Prince's Nursery in New York the so-called Prince's "Great Fruited" and another kind that was called later "Princes'" and then Languedoc.

This latter kind was propagated to some extent by W. W. Brier, but not in any very large numbers until B. D. T. Clough, of Niles, or Vallejo Mills as it was called then, started his Almond Nurseries. He grew many kinds and sold them all over the State under the name of Languedoc. In the later years he maintained that there were two kinds in our locality under the name of Languedoc and would use buds from certain trees only, saying that the others were poor bearers. This is still maintained by some as explaining the reason why certain orchards of L. do not bear and others near by do. My observations lead me to believe rather that there are slight variations, hardly enough to call varieties, owing largely to soil, location, etc., but more perhaps to a slight bud variation. I have failed to discover any fixed difference. One tree will have rather more of the thin, stringy-textured, flattish and wide-flanged, pointed nuts, while another has more of the short, thick, narrow flanged ones with thick, but porous shells. As they are both alike in failing to bear except under the very best of circumstances, this slight difference is of but little moment.

The Languedoc is the old standard variety, and it is not well to condemn it without inquiring into the reasons why, of its failure to bear regular crops. The favorite reason a few years ago was frost at the time of setting the fruit. Lately the idea that it is rain at this period is gaining more adherents. Then there are many who believe that this variety needs cross-fertilization, and many of the later orchards have every other row planted with other kinds that bloom at the same time as the L. Observations in my own locality suggest that another cause is perhaps the most important one in deciding whether any particular orchard of L. will bear well or not, i. e., the supply of water. Laying all the blame to the frost will not do, for they often fail in years when there is absolutely no frost after the time of blooming. I have thought that they usually failed in years when we had long, cold rains during blooming time, but they also fail for other reasons. Cross-fertilization will not fill the bill either, for, as far as my observations in this one season go, the neighborhood of different kinds has made absolutely no difference in crop. At the same time the best bearing orchard that I know of has a number of kinds mixed together all of which bear extremely well, owing, I think, not to the mixture, but to the fact that they are on a piece of land especially adapted to the growth of almonds. It is the somewhat elevated flood deposit at the mouth of a small canyon, and is deep, rich and mellow. It is moist, too, for it gets the underflow of a small stream that sinks at the mouth of the canyon and must also get some seepage from the hill above, still it can never be too wet as it lies on gravel. That there is abundant moisture is shown by almonds as well as other trees on this bench retaining their leaves very late and making fine growth, and it seems to me that this is the reason why this particular almond orchard seldom fails to have a full crop. There is abundant moisture to make plenty of good, healthy, new wood each year, and sap to ripen all buds whether on old or new wood in good shape and in the spring when the little nuts are set thick as gooseberries along the branches in this orchard, they have plenty of good, rich sap to carry them over this most difficult period, and while in other orchards they mostly fall off in this they nearly all stay on. This orchard has borne such regular and abundant crops that the trees have lost the erect growth of the L., being more or less bent over by the heavy loads of nuts.

The almond is a deep, strong-rooting tree and if on almond root is, in the nursery, at least, the deepest and strongest of any grown, and there is no reason to believe that it loses this characteristic when set in orchard form. This fact may explain the reason why almonds do well on seemingly dry soils. They are able to send their roots far and deep and if there is any moisture in the soil, no matter how deep, they will get it. The sudden drying out of strips of almonds on rich deep soil near Niles on the diversion of the Alameda creek showed that they were depending upon subterranean water supply that was cut off by that diversion. This was not shown except along the main stream or on what seemed to be old covered up channels that had probably carried a good flow until of late.

In trying to find cases where cross-fertilization could not have occurred I found trees that were long distances from any different kinds of almonds and, yet, where the trees were healthy and not too much exposed, they have good crops.

The custom of those who believe in cross-fertilization has been to plant hard-shell, paper-shell, or some of the Hatch seedling nuts for this purpose, but as all of these kinds bloom early and the Languedoc late, I do not see how they can be of any benefit.

I do not know whether the periods of bloom overlap at all, perhaps some one present can tell; at any rate if they do not overlap there can be no benefit.

Still, one gentleman assured me that he had carefully observed in his own orchard, and the row of L. next to his paper-shell were every year heavier than those a little way back, and another claimed that his IXL had the same effect on his L. Still another said that though there were a number of hard-shells scattered through his orchard with the idea of cross-fertilization, the trees near them bore no better than those far off, and he did not believe that the L. needed cross-fertilization (this on hills). The worst case of failure I could learn of was a few trees of L. on a ranch high up in the hills, and far from any other almond trees. I thought I had a plain case, but when I inquired further learned that peaches of all kinds were also a complete failure, though apples and pears did well.

Mr. Curtner, one of the oldest and the largest almond-growers in the county, takes no stock in the cross-fertilization idea, and thinks that lack of water is the cause of failure. He has for several years watered trees that formerly bore little, and now they bear well, much more than any in the orchard, although they are very old trees. He is making arrangements to irrigate all that he can of his large orchard this winter.

There are some things about the dropping of the L. and P. S. that look as if it were caused not by lack of fertilization but by frost, rain or lack of sap.

In most years both the L. and P. S. blossom very fully, the little nuts set well and stand as thickly as gooseberries, to quote a common expression, and all seems to be going well, when, after a week or so, a portion of them are seen to be growing rapidly and the rest standing still. When this occurs, you may be sure something is wrong, for soon those that are not growing drop, and you usually have little crop left. There is often a kind of second crop of blossoms coming out later than the rest on the new wood at the tops of the trees. These often set and stick well, and in many years form the bulk of the crop on the old trees.

The fact that these late blossoms often make nuts while those earlier do not, looks as if they did not need pollen from other kinds, for, by the time they are out, all other kinds are certainly out of bloom.

What is the trouble, then? Is there a frost or a spell of cold weather that checks the sap so that when these thousands of little nuts I spoke of call on the parent tree for nourishment it is not there to give, and only a few get enough to carry them through this trying period, or is it, as many believe, that the nuts are not really fertilized and drop off?

Early Pacific Coast Horticulture.

At the last meeting of the Oregon Horticultural Society, a paper was read by the pioneer horticulturist, Seth Lewelling, which will be noted with wide interest in this State:

Horticulture in Oregon began in Salem, Henry county, Iowa, in March, 1847, when my brother, Henderson Lewelling, planted an assortment of the principal fruits—apples, pears, peaches, plums and cherries—loaded them into two wagons and started with them across the plains to Oregon. He also planted a few black walnuts and shell-bark hickory nuts which sprouted and came up on the way. At our next meeting I hope to present the society with a gavel made from the wood of one of those historic hickories, which lately fell a victim to progress because it happened to be in the path of the East Side Electric Railway Company's line from Portland to Oregon City.

My hearers can imagine the labor of watering and caring for that nursery through that long wagon journey, from March to November, when it arrived at Milwaukee. He succeeded in bringing a single Isabella grape. He transplanted his nursery almost immediately from the boxes to the land now owned by Mr. J. H. Lambert, between Milwaukee and Sellwood, what was then the Meek donation claim.

These, I believe, were the first domestic fruit trees brought to this coast, except, perhaps, such citrus fruits as may have been introduced in California by the Mission Fathers. So highly were they appreciated that offers of $3 per tree were freely made when they arrived.

About this time my brother and William Meek formed a partnership in the business, but from the fall of 1848 to 1850 they sold very few trees. The great difficulty was to get stocks on which to graft. They tried the wild crab apple and thorn bush for seed fruits and the wild cherry for stone fruits, but with poor success.

In the fall of 1840 a Mr. Pugh brought from the States some seed of various kinds which Meek and Lewelling bought and planted, and from which in the fall of 1850 they had splendid stocks from two to four feet high. They grafted 18,000, which in the fall of 1851 averaged about four feet. The land on which this first really successful nursery was grown adjoins one of my orchards, and is now owned by Richard Scott and used for pasture. It was irrigated, and you may easily believe, very carefully cultivated.

The apple trees sold readily for $1 apiece, and plum, cherry, pear and peach for $1.50 each. In the fall of 1850 I arrived at Milwaukee, bringing with me quite a lot of fruit seed. From that time we had stocks for grafting, though not in great abundance. We still used the wild cherry, and in the winter of 1852 we pulled a great many wild cherry trees, my last day's work at it being 3000 trees, which brought me a felon and rest from tree-pulling.

In 1853, Meek, my brother and myself started branch nurseries, one at Salem, in charge of Alfred Stanton; one in Polk county, back of Spring Valley, in charge of Amos Harvey; another on the Long Tom, in the hands of Joseph Kelsey, and a fourth near Albany, managed by Mr. Knox. We put out about 100,000 grafts in the four nurseries, having kept 14 men shop-grafting in Milwaukee all the preceding winter. J. H. Lambert, Noah Hubler and myself are all who are left in Oregon, of that crowd, so far as I know. Philip Lewis, one of the founders of Seattle and the discoverer of coal there, was another.

Those were the days when we expected Milwaukee to attain the position in the commercial world which is now held by Portland, but like many another good naturalist, its advantages were more than neutralized by the greed of the land speculator. We got some fruit in 1851 and a little more the next year. In 1853 we got a good many apples. I helped pick one tree which bore 240 pounds, which Henderson took to San Francisco and sold for $1 per pound. In the fall of 1854 quite a number of small orchards came into bearing, and the price fell; in 1856 they had declined to 25 cents per pound, and from that time the price tended constantly downward. Henderson planted quite a large orchard where the racetrack now is, between Milwaukee and Sellwood, and in 1858 gathered from it 2800 bushels of apples.

Pears, peaches and plums began bearing nearly as early as apples, and sold for $1.50 per pound when apples sold for $1. In 1853, '54 and '55 much of the fruit was shipped to California, where, even then, very little of it sold for less than $1 per pound.

Henderson brought one gooseberry and a few current bushes, but no blackberries. In 1858 I sent East for the first blackberry of which I have any knowledge, though there was an abundance of wild varieties. My first sales of blackberry plants were in 1859 and 1860 for $3 per plant. We tried strawberries a good deal, and in 1851 Henderson went to the States and returned in 1852 bringing a few plants of Hovey's seedling, but it was a pistillate variety, and in spite of faithful work we got no berries until 1858, when I sent East for a stock of Wyan's Britisth Queen, and several other varieties. In 1859 I sold my strawberries for 75 cents per pound, but the demand was insignificant. It seemed that few people knew anything about the fruit, though, perhaps, that is not so strange, when we remember that its cultivation to any considerable extent, even in the States, dates from 1849. Up to 1860 I had no knowledge of another strawberry patch in the State for market, and the demand was so poor that I quit raising them.

The Royal Ann cherry was one that my brother brought across the plains in his wagon, and was the best we had. It was not until 1860 that we had any black Tartarian, though we had the black Bigarreau, black Murillo and May Duke. Neither were we the only nurserymen all this time, for I remember that in 1852 the Geer family, the father and Ralph and Fred Geer, had made a start, and took quite as active an interest as anyone in fruits and fruit trees.

In 1860 nurseries were becoming quite numerous. My brother quit the business and left Oregon in 1853, and in 1857 William Meek quit, leaving me the sole owner of the Milwaukee nurseries. In 1860 I raised the first black Republican seedling, which S. Libby Brown of Vancouver, George Walling of Oswego, and Mr. Hanson, of east Portland, agreed to graft and introduce, giving me half the proceeds of sales. My share was $500, and though I have since originated the Bing cherry, of which we sold the fruit in Saratoga Springs last summer for $1 a pound, and the Golden prune, yet, insignificant as the sum was, the black Republican paid me more than any new fruit tree I have introduced.

To close this reminiscence of the past, I must tell you of the phenomenal yield of a single blackberry I grew when that fruit was new in our State. I grafted 200 on our wild roots and one grew. I gave that careful cultivation, and in its first season the cane grew five feet high and grew side branches of five feet. I carefully kept it from sun-burning, and picked 23 pounds from that one bush. I had one side photographed which carried 12 berries, averaging one and a half inches in the long diameter and nearly as long in the shortest diameter. This was at the rate of nearly 25 tons per acre, and shows what is possible to the future nurseryman who makes a commercial success of grafting our domestic cane on the vigorous wild roots. The life of horticulture has but begun, and I predict that in later years the science of fruit-growing will successfully destroy all pests, which have been bred by ignorance and carelessness.

THE FIELD.

Sugar Beets in Sonoma County.

TRENTON, Sonoma Co., Nov. 1, 1892.

TO THE EDITOR:—The following, to those who have looked a little into sugar beet culture, explains itself:

"UNIVERSITY OF CALIFORNIA, COLLEGE OF AGRICULTURE, Agricultural Experiment Station, Berkeley, Oct. 24, 1892.

Report of analysis of sugar beets from Trenton, Sonoma Co., Cal. Sample sent by D. B. Wier:

Condition of beets	Good.
Average weight in grains	330=11 ounces.
Specific gravity of juice	1.0665
Solid contents, by spindle, of juice	16.00
Cane sugar, per cent	14.[illegible]
Purity coefficient	88.3
Saline coefficient	16.61
Ash, per cent	

This is a very high-class beet; the sugar contents and *purity* coefficients being excellent, and the ash below the average. The weight of the beets meets with the requirements of the factories. The analysis is highly satisfactory in every way for a first-class working sugar beet. M. E. JAFFA."

This result leaves little more to be said, and is exactly what I expected, and coincides perfectly with what I wrote three years ago, to wit, that the many thousand acres of sandy loam of southwest Sonoma county are among the very best sugar beet soils of the world. For the purpose, they cannot be surpassed anywhere. The soil is perfect in tilth, *i. e.* ease of culture. The climate most certainly is

unsurpassable for economy in manufacturing sugar from the beets. The summer and autumn climate is hardly approachable for comfort in the labor of growing and harvesting the crop. No expensive storehouses are needed to shelter the beets from frost, and, best of all, no water has to be bought for irrigation, for none is needed. There is pure water in plenty for a factory. With a factory rightly located, there need be no heavy hauling of heavy beets, for the hauling would all be down hill, and the near-by dairies could most profitably use all the pomace. Two Rock valley has the best of soil in plenty to run a factory of the first class; Blucher valley another, Sebastopol another, and still another factory could be furnished at Trenton, and another at Tomales. Sebastopol should have the first factory, she having railroad communication *and a bank*, for both beets and sugar are heavy to haul.

I say the factories should be in the valleys, yet the beets should be grown on uplands—on the more level uplands. Valleys (except high lands in them—Mt. Olivet would be fine) *are not* the places to grow good sugar beets in, except the higher portions of valleys in arid regions of well-drained sandy loam. Honey Lake valley, Lassen county, would be as good as the best in every particular, climate and all. But it is a fact that our southwest Sonoma lands cannot be beat in the wide, wide world for net profits in sugar beet-growing. It has an absolutely perfect climate and water for the manufacture of sugar. Petaluma having tide-water navigation, has transcendent advantages of course over all other points.

It is not necessary for me here to go into the subject further at the present time, therefore I will close by saying that any one should know that California and Arizona "have the call" in sugar beet culture over any and all of the Eastern States, or any points or portions of Europe, most prominent in their climates. Here in Sonoma the beet crop will be absolutely sure without irrigation, and in the arid regions irrigation makes the crops sure; and, best of all, in their long season of growth, giving a long run to the factory, with no expensive protection from frost.

As to the profits to the farmer, the State has had experience enough, during the lowest sugar prices ever known or that can reasonably be expected, to show that they are good. The returns range, by many reports, from $60 to $90 an acre, with an average of about $75 an acre.

There is somewhat of *ipse dixit* in all of this I am well aware, yet all obscure points are easily explainable, and especially those in regard to suitable soils. D. B. WIER.

Growing Onion Seed in Oregon.

We have a good many onion-seed growers in this State, and they may be interested in reading how the work is done in Oregon, as described by John Henry of Beaverton at the last meeting of the Oregon Horticultural Society:

The onion is an important crop in Washington county, and a few remarks about growing the seed may be interesting to this society.

As is well known, the onion is a biennial, requiring two seasons to complete its career; that is to say, it is one season from seed to bulb, and another from bulb to seed. Well-drained, rich, mellow soil is necessary for the production of a good crop. After plowing in spring, as soon as the ground is in good workable condition, it is harrowed and then laid off into furrows three feet apart, using a one-horse plow and making two trips to a furrow. The ground is now ready for planting, and the onions are hauled to the field in sacks and distributed at convenient distances for dropping. In dropping, a workman takes a sack on his shoulder, and, moving along the ridge between two furrows, lets the onions drop out of the sack at such a rate that, when placed in position for growing, they will be six to eight inches apart. Other workers follow, and taking each onion separately, place it top up in the bottom of the furrow pressing it slightly into the bottom of the soil in doing so. After the onions are planted, they may be lightly covered immediately or they may be left uncovered for a week or two, but in either case, the first soil is drawn into the furrows with hoes; but after that, as much of the work as practicable is done with horse labor. After covering, nothing is required until harvesting time, except to keep the ground clear of weeds and well stirred.

Harvesting begins about the first of September, and is a tedious job. Each head is cut off separately and let fall into a pan, basket or pail; and when these are full, they are emptied into sacks, that are placed, upright and open, at suitable distances apart. When the sacks are filled, they are conveyed to the drying-sheds. Here the heads are spread thinly upon platforms, that rest, one upon another, six or seven high. On these platforms the heads remain a week or two, according to the weather, or until they are nearly dry. They are now taken out of the sheds, into the sunshine, and spread upon large cloths. A few hours in the sunshine completes the drying process and makes the crop ready for threshing.

The threshing is done in various ways, but I think no way surpasses the action of two bare-footed horses upon a well-constructed floor. With some if not most growers, the fanmill only is used for cleaning the seed. With others, the writer among them, the seed is also washed, for the purpose of removing all seeds that are lighter than water. This washing is done by putting the nearly clean seed into water and stirring; then the light seed floats and is skimmed off and thrown away. The heavy seed which sank is now taken out and dried quickly to prevent sprouting. One more fanning, and the seed is ready for market. In this way only, can the heaviest seed be obtained in a perfectly clean condition.

The yield of onion-seed varies greatly with the soil, the season, and the presence or absence of mildew, the only disease for which the crop is subject. In a general way, it may be stated that an acre will yield 500 pounds, and that, to plant an acre, 50 centals of bulbs will be required.

The only kind of seed grown or used here in the great onion region is the acclimated or Oregon yellow. It originated more than 40 years ago with the late A. Fauno, who was the most successful grower of onions in the State, and whose sons now are. It is by far the best keeper known, in our climate, and so hardy that it will bear a temperature of zero without injury.

I know of only two persons in Oregon who grow this seed in quantity for the trade. One is O. Dickinson, of Salem, and the other is myself. Mr. Dickinson is a dealer in onion seed as well as a grower, while I restrict myself so far as practicable to growing on contract for the Portland seed firms.

I would estimate the total quantity of this seed grown in Oregon in 1892 at five tons, but a good deal of this is produced by onion-growers for their own use.

The Indian Wheat Crop.

WASHINGTON, Oct. 21, 1892.—The latest report of the Statistician of the Department of Agriculture gives an interesting summary of the final report of the Indian Government on the wheat crop of 1892. The total crop is put at 5,442,000 tons, or 203,168,000 bushels of 60 pounds. This marks it as the smallest crop harvested in any year since annual estimates were inaugurated in 1884. In the final report of last year the crop of 1891 was stated at 6,842,000 tons, or 255,434,667 bushels, but the present return changes the estimate for 1891 to 6,876,000 tons, or 256,704,000 bushels. On the basis of this revised estimate, the crop of the present year shows a falling off from that of 1891 of 53,536,000 bushels, or 21 per cent. The area is returned at 24,088,000 acres, against the revised estimate of 26,576,000 acres harvested in 1891. The normal or average area under wheat is placed at 26,544,000 acres, showing a falling off of acreage in 1892 from the average of 2,456,000 acres. The figures indicate a yield per acre of 8.4 bushels for 1892, against 9.8 bushels last year, and an average, calculated from the normal area and outturn as given, of 9.5 bushels.

Mr. Dodge, the Statistician, comments as follows:

"The average production for the nine years for which official data are available is 248,957,586 bushels. But once in four years past has this average been reached. The average of the last four years is 231,496,533 bushels, while that for the preceding four years was 265,735,316 bushels, a decline in the last period of 34,238,783 bushels, or 13 per cent. This justifies the opinion positively expressed in these reports at the time of highest production that there was little present probability of continued increase in wheat production, notwithstanding the fears entertained in this country of a loss by foreign competition of our market for surplus wheat.

"It appears that the amount exported in the last fiscal year equals 22 per cent of the crop of the previous year, but it is quite certain that it did not all come from the crop of 1891. The ordinary reserves were freely drawn upon on account of the extraordinary demand. So completely were some districts drained that famine threatened, although wheat is not the bread grain of the Indian population. The increase in exports from India during the past decade has apparently had but little effect upon the area devoted to wheat. In fact, during the period for which official estimates are available there appears to have been an actual decline in the acreage, the area being reported in 1885 at 28,228,740 acres, while the normal or average acreage is now calculated at 26,544,000. The increased exportation does not represent an increased production so much as it does a surplus, which has always existed and now made more available by improved facilities for transportation and handling. The reserve, which was once pitted in years of plenty for use in years of famine, now enters commercial channels, the railways being largely depended upon to so facilitate local interchange as to obviate the likelihood of serious want in any section of the country."

FRUIT PRESERVATION.

Oregon Evaporators.

At the recent meeting of the Oregon Horticultural Society, the first paper of the day was read by Aaron Bray, of Dundee, on "How I Would Construct an Evaporator." He began by saying that fruit must be dried by hot air and the length of time required to dry fruit will be governed by the degree of heat and the speed of its passage through the fruit to carry away the extra moisture. The model evaporator is one in which the degree of heat and circulation of air are the same in all its parts. The air which has passed through green fruit and absorbed a large amount of moisture should be allowed to pass out of the evaporator without being compelled to pass through partially dried fruit. The evaporator should be so constructed that the fruit can be easily inspected. Upon these depends the success of any evaporator. The evaporator should never be less than 18 feet 8 inches long, 8 feet 8 inches wide, and longer is better. The air should be delivered through heavy iron pipes not less than 10 inches in diameter, which should start from one side and discharge near the other, and for regulation should be supplied with adjustable caps. The foundation should be constructed of brick, 8 inches in width, with a brick wall running through the center, and the arch should run through the whole length. The sills should be 2x8 and the cross-pieces 8 feet 8 inches, with division of one inch clear lumber. Each section should be entirely separate from the other sections. Nail pieces 1½x3 inches extending 2 to 4 feet above the top of the drier, and ceil both sides, the outside one extending to the top. With the uprights ceiled it forms two complete ventilators. The crates should be exactly 3 feet square so there would be no trouble in putting them in or taking out, and should be placed about 6 inches apart, depending on circumstances. The rests for the trays should be 1½x3 inches, with the inner end about 5 inches the higher, to allow trays to be taken out easily. Above the trays should be bored 1-inch auger holes from 2½ to 3 inches apart, and covered with a thin board to regulate the heat. The whole should be covered with a flat roof, so that all heat must go to the center to the elevator shaft, thus causing it to pass over the fruit, as it is a well-known fact that heat always goes where it finds the least resistance. The trays should be 6 or 8 feet above the top of the furnace.

After Mr. Bray had finished, Mr. A. H. Carson, the evaporator man from southern Oregon, was called upon and described his Redland evaporator. He said that Mr. Bray's theory of hot air going where it found the least resistance was correct. Wherever the air is forced rapidly over the fruit the question of successful drying is solved. He had never had any success until he began with the Redland. He thought 3 feet above the furnace was near enough for the first trays. The air is admitted into his drier by 4 inch pipes, 10 pipes in 18 feet. All air must pass over the furnace. After the temperature has reached 180° it is kept steady until finishing, when it is run up as high as 210°, the object of which is to give the fruit the proper color. Most of the fruit in the country is overdried. Trays 3 feet square are too large if a man has to handle them all day; 3x2½ is large enough. The fruit to be dried right should all be of the same ripeness. In order to get the same amount of heat on each tray, the passage-way of exit is made smaller as the trays extend toward the top, the lower one having a crack above it, full length, one inch wide, and decreased in width one-twelfth of an inch for each succeeding tray. One of these evaporators will cost when completed about $225, and for size they should not be over 18 feet long, because there is too much money and risk in a large machine. It is better to have several small ones and carry your own insurance, which is about $4 on the $100. If one large machine should burn just at the beginning of season, it would be a serious loss to a man; but if he had several small ones the loss would not be great, and he could go right along drying with the others. A drier should never be left a minute without some one to watch it while in operation, as there is always danger of fire; and if a man is around he can easily save the others, or stop the one catching.

FOR the last six months the Southern Pacific Railroad Company has been concentrating all of its broken-down, worn-out, superannuated engines at the yards in West Oakland. There were engines of all sorts and conditions, of every make and of various degrees of beauty. Some looked as though they were as good as any that now make regular trips. Others were ramshackle, rusty-looking affairs that seemed to have come from the bottom of the sea. In all, nearly 100 were gotten together and were placed on various sidetracks in the yards, wherever there was room and where they would be out of the way. Every one was absolutely worthless, so far as the purpose for which they were originally built was concerned. One day last week a gang of men went to work on the old engines and blew them up, one by one, with dynamite, in order to get the old iron and brass in salable shape.

THE contract for the construction work on the S. P. railroad between Santa Margarita and San Luis Obispo has been let to Geo. Stone & Co. of San Francisco for $1,500,000. This includes some 8000 feet of tunneling, and it is estimated it will require 15 months to complete the contract. The rest of the gap from San Luis to El wood will be comparatively easy work, and nothing will be done on this part until the tunnels are almost completed. The largest tunnel is at the summit of the Santa Lucia range and is 3700 feet long. Seventy-pound steel rails will be used in the construction of this road, and when completed it is to be used as the great overland tourist route of the Southern Pacific. Camps have been established and work actually commenced at all the tunnels. As large a force as can be conveniently managed will be kept constantly at work until the road is completed.

M. P. PALMER, who is engaged in the building of the San Joaquin water-ditch, reports rapid progress in that grand enterprise. He says that he has eighteen men at work, and has already completed about two miles and a quarter of the work, leaving a mile and three-quarters yet to complete, which will be accomplished in about five weeks. The ditch has a carrying capacity of 5000 inches, which it is calculated will irrigate about 3000 acres. Next year Mr. Irvine proposes to build a dam in Santiago canyon that will contain a large body of water—about a mile and a half long by half a mile wide.

THE engineers of the San Francisco and Great Salt Lake have completed their surveys to the State line. It is said that satisfactory grades have been established on the Sierras and also over the Alameda county hills. The profile work remains to be done and then the cross-sectioning preparatory to actual grading will be undertaken. It is now known that the 200 acres of land on the Contra Costa shore purchased in September last and transferred by Thomas B. Bishop to E. L. G. Steele are intended for the terminal facilities of the new road on the east side of the bay.

THE Chino sugar factory closed its second season's run October 29th, having been in operation since July 1st. Nearly 28,000 tons of beets were worked up, for which the factory paid the farmers $112,000. The total output of crude sugar is 7,903,541 pounds, on which the government bounty is nearly $150,000, making about 200 carloads of sugar. Over 500 hands have been employed in the factory and beetfields, and $150,000 were paid in wages.

A SPECIAL train of 20 cars of walnuts has been shipped from Los Angeles. Nearly 20,000 pounds of walnuts were placed in each car, and the estimated value of each carload is about $2000. This is the first train of this character which has been shipped across the continent, and the occasion is an interesting one to shippers of California products. The nuts are the products of the Los Nietos orchards.

THE HOME CIRCLE.

The Homeless Thoughts.

Under the wild November sky
Blackbirds in eddying circles fly;
The woods their glittering robes throw by
And plain to heaven unceasingly.

Dark to the hilltop stoops the cloud;
Bold is the blast that shakes the proud;
Now loud, now low; now low, now loud,
The wanderer's call comes down to me.

Like these wild squadrons tossed on high,
Scattered, confused, they know not why,
My thoughts, a homeless myriad, fly,
And beat the winds continually.

All that of nature's stamp she wore
Whose bosom housed their wings of yore,
Rotting in earth, is mine no more;
May heaven restore her soul to me!

—Dora Read Goodale.

Pavement Pictures.

Wild storm this languid summer night,
Clashed o'er the city an hour ago;
But now, released in heaven's blue height,
A moon has brought her sorrowing glow,
To flood the massed roofs' dimness dense
With pale celestial penitence.

The breeze wakes rich in soothing damps;
Faint spires loom silvered; and one sees
In street or square, by rain-splashed lamps,
The wet leaves flickering on stray trees;
While black fantastic shapes of dream
Bold from the drying pavements gleam.

Chance moods of moisture's random change
The dumb stone flaunts their blots grotesque,
Where freaks of spectral traceries range
Through many an elfin arabesque—
Till the huge town's vice, crime, despair,
Seems devilishly pictured there!

—Edgar Fawcett.

A Spinster Gossip.

Written for the RURAL PRESS by KATHARINE BRYANT NOLAN.

"No! the heart that has truly loved never forgets,
But as truly loves on to the close
As the sunflower, turns on her god, when he sets,
The same look which she turned when he rose."

"My goodness gracious me! There's Cicely Stebbins! I wonder what Cicely has 'on the brain' now?"

Jessie Milliman spoke softly, and her delicate face flushed rosy-red as she beheld Cicely's advance, with flying ribbons and breezy-looking white skirts, like a yacht under full sail.

"How-dy, Jess,' Cicely screamed. Falsetto was one of Miss Cicely's charms.

"I am very well, I thank you," Jess replied in low and even tones. "How are you getting on, Miss Cicely?" The latter remark was spoken in a freezing tone of politeness. Cicely ignored the *politesse* and said precipitately:

"Mary Ann Butterfield says that Ray Bancroft is a-payin' attentions to Flo' Hinckley. I've seen her a-makin' eyes at him myself, an' of course she's mighty stylish an' has a good chance bein' in the store all day, an' under his very nose. Likely 'nough he has got to be kinder sociable with her jest for politenesses sake. I told Mary Ann so, but I thought you ought ter know that folks was a-talkin' an' I made up *my* mind to tell ye the very first time I saw ye. Sarah Connelly says that he goes up that way real often, an' some one went home with Flo' the very last thunder shower we had, an' Sarah, she sticks it out that it was Ray Bancroft who was with her, an' Sarah says that Ray was awful kind of loverlike, an' Flo' seemed as tickled as the little dorg with two tails that Uncle Zeke's always and forever a-tellin-about." Cicely broke off suddenly. "Uncle Zeke says he seen that dorg with his own eyes," she said meditatively.

"Dorg!" Jess echoed, scornfully. "You do yourself small credit, Cicely. With all the schooling you have had your carelessness of speech is reprehensible. To call a dog 'a dorg' is perfectly odious."

Cicely looked abashed and made a little movement that fluttered the breezy pennants of her gown.

"Well, good-bye, Jess. I thought you'd ought to know how folks was a-goin' on, an' bein' your friend, I made bold to tell ye. I don't expect any thanks, but if I stood in your shoes, I should thank the one who told me," this young gossip retorted. "But I'm awful sorry I said anything now."

"*Au revoir*," Miss Milliman answered shortly.

Ray Bancroft and Jessie Milliman met at the corner of Maple and Elm streets, named for the beautiful, wide-spreading trees of their respective avenues, and when he lifted his hat gallantly, passing into the store of Bancroft & Gifford, she had tossed back his troth to him as if it was a gewgaw that she had grown quite tired of wearing. The gentleman looked stunned and somewhat amazed, but he did not linger for any explanations.

The birds sang discordant notes, and the stars came out one by one, in a sorrowful way, as Miss Milliman continued her lonely walk toward home.

Mrs. Milliman was watching anxiously for the one child so tenderly reared, and the tea-table covered in snowy damask glittered with quaint silver and old-fashioned china, under the silken shade of the handsomely-ornamented lamp, when Jess entered the dining-room. There was no reference to Cicely's dreadful gossip or the hastily-broken engagement. When Jess laid her head on her pillow, she sighed:

"It's a little cloud no larger than a man's hand. The first breath of heaven will waft it out of sight. It will then be forgotten."

But Ray Bancroft failed to appear. The small cloud was not wafted upon its journey. It loomed in the horizon darkly and hung threateningly over the smiling landscape.

Cicely hastened up the garden-walk, bordered with narrow rows of dwarf-box, on the morning of the third day. The double hollyhocks on either side guarded the way like grim sentinels uniformed in crimson splendor, and there was evidence of excitement in Cicely's manner. She had obviously determined to do her full duty as a friend of the Milliman's, and was undoubtedly the bearer of some fresh, newsy item. Jess armed herself with a steely resistance, resolving to stand to her guns like a grim trooper, and spoke no word of welcome, as she met the girl in the wide, roomy hallway.

"Ray's sold out his share 'n the store an' he's gone away, Jess. How-dy, Mis' Milliman?" Mrs. Milliman stood in the background, polishing her gold-bowed glasses carefully with a snowy handkerchief, as the girl spoke.

"How-dy, Cicely?" she answered.

"Folks say that Ray'll never step foot in Glenwood again. I s'pose Flo' Hinckley's at the bottom of the trouble. They say now that Flo' is a born flirt, an' she has led Ray on an' thrown him over for Judge Sawyer. The Judge is worth a pile of money. Uncle Zeke says there's always a woman at the bottom of any kind of a fuss, an' I reckon it's Flo' this time."

"Sakes alive, how folks talk!" Mrs. Milliman exclaimed, putting on her glasses, as she glanced sharply at Jessie's impassive face. She scrutinized Cicely's attire minutely. "There's a caterpillar a-crawlin' up your shoulder, Cicely."

"Pick him off, will ye, Mis' Stebbins? I don't see where he come from. Yes, an' folks wonders why he wanted to go quarrel with a fine, likely girl like Jess." Cicely referred to Ray in this gossipy assertion, although she might have been supposed to allude to the worm. "Everybody s'posed he an' Jess was sure to hev each other," she continued, hurriedly, "but things come out dreadful curus nowadays."

"Yes, they do, Cicely." Mrs. Milliman snapped the grub out-doors and then continued: Your skirts are dreadful kind of short, Cicely. You've got such spindle-shanks of legs, you see."

Mrs. Milliman spoke with an anxious hypercritical punctilio.

"Ma's a-goin' to let 'em down," the girl answered.

"I should think ye'd do that sort of work yourself, Cicely," Jess observed.

"Well, good-by; I'm in a hurry this mornin' or I'd spend the day with ye. You come over to our house soon's ye can; ma wants to see ye real bad. She thinks a lot of ye both." Cicely went away in an amiable frame of mind, to entertain the gossips of the town, while Jess explained the case to her mother briefly, making light of her disappointment.

Five years afterward, Jessie Milliman left the old homestead as the bride of her cousin John Saunders. Mrs. Milliman favored John, and Jessie adored her widowed mother, so she entered into the preparations for her wedding docilely.

Cicely walked miles to find the beautiful maidenhair ferns, nestling amongst the pink roses, in the stately best parlor, simply because she knew Jess liked them. It was a sort of an atonement. Cicely understood how that quarrel between Ray and Miss Milliman had been formulated, and Cicely's conscience was an uneasy one.

Jess would willingly have arrayed Miss Stebbins in the ashes-of-roses bridal gown at the last moment, since Cicely was fond of John; but this was an impossibility, for the reason that she had grown slenderer, while the youthful gossip had grown stout. Cicely's embonpoint ballasted her and rendered the scheme a failure; so the wedding went on quietly, as arranged for.

The bride rode away amid the traditional shower of rice. Cicely made a frantic search for an old shoe at the last moment, but this precursor was powerless to prevent the catastrophe that fate had in store for John Saunders and his wife.

The honeymoon was spent in an old-fashioned tavern, that was wedged in between two groves of trees, facing a broad and lovely valley. The wind sighed softly through the pines, and the robins sang sweet vespers and matins as if life was all sunshine and holy calm; yet, within two year's time, there were two freshly made graves in the grass-grown cemetery in Glenwood. One of these mounds was a tiny one; the other was heaped over the fair and placid face of Mrs. Milliman.

The great square rooms of the ancestral Milliman residence seemed very gloomy and lonely after these providential visitations, and Jessie wandered about, looking more delicate than ever in her plain black dresses. It was difficult to accustom herself to the loss of her mother's voice and the child's wail.

John Saunders' coat hung limply from the rafters of the garret. There was a distinct impression of his personality in its lines, and something drew Mrs. Saunder's toward it during one of her uneasy rambles. There was a glimpse of the cemetery from the window in the gable. Passing her hand over the shaggy surface of the garment, she said:

"It's wicked! There you hang idly, when many a poor soul is suffering with cold. Suddenly she put her hand through a rent in the pocket and drew forth a letter. Jess Saunders looked at the superscription with startled eyes. It was in Ray Bancroft's fine, flourishing hand, and it was directed to herself. Tearing it open, she fairly devoured its contents. The letter read:

My Dear Jess: I am called away suddenly by the illness of Uncle Frothingham. I can hardly believe that you meant what you said the other night, but if you did and never wish to see me again, the way seems to have opened in favor of it. Write to me at Dayton in the care of Cyril Frothingham. I shall then fly to you, my beloved; but I cannot face the possibility of hearing you repeat those cold, hard words again. You are the only girl that I have ever cared for or ever shall care for. I will dispatch this letter by John Saunders to ensure its speedy delivery. Write quickly, my dear.

Very truly yours, RAY ALCOTT BANCROFT.

"Yes, an' Mr. and Mis' Saunders live right along in the same house together, an' never speak no more'n as if they wuz both dead an' buried. Folks say that they had a dredful fallin' out, but John Saunders got hold of all the property when ole Miss Milliman died; so Jess couldn't do nothin' but live along with him. John Saunders is a shrewd one," Cicely averred to the new minister's wife. Miss Stebbins spoke with the gossipy air belonging to confirmed spinsterhood, and the parson's spouse gazed pensively toward the sphinx-like face of Jess Milliman Saunders, as she heard a sigh of compassion.

False Impressions of the Press on Farm Life.

Paper read by MRS. MARY WESTCOTT, Swanton, Neb., before Farmers' Institute.

It is false to say the farm is a dreary place to live. It is a libel on truth to call its labors drudgery. It is a scandal to say its women work harder, know less, dress shabbier, and have fewer liberties than other women. It is a sin to cast slurring remarks on the intelligence of the girls who live beyond the allurements of city evils, and a positive crime to establish the idea that the country boy has neither pride, common sense, nor sensitiveness.

The press of our country is as wonderful in the success of its false education as it is renowned for the progressive development that is carried on its pages. Its false tuition on farm life is one of the chief links in the chain of evils of concentrated financial power, the magna charta of which will place another Runnymede on the surface of human history.

"Put in just as little time at labor and as little labor into the time as possible, and shirk wherever you can."

"The employer has no rights you are bound to respect. Society has no claims on you that you need defer to."

"Your first duty is money, money. The way of getting it is nothing. Got, it is everything."

"If the proprietor suggests in your hearing that the property is his, leave him. Teach him to respect labor and give the laborer his due."

"If anyone attempts to point out the errors in the newspapers you publish or the public measures you sustain, call him names. If the English dictionaries do not contain epithets of sufficient venom, search other dictionaries; compile them; boil them down together until the amount of venom is extracted you think necessary to drive into oblivion those who presume to differ with you on any question of public or social interests."

These are a few of the fatal maxims being fed to the young people of this country.

"Conditions have changed, you must remember," says the defender of these things. So they have; but the lessons in the downfall of Babylons are just as strong and efficacious in one age of the world as in another.

The civil war, more than any agency, opened the way for an outburst of long-pent-up intellect. The pen was heralded among us as being mightier than the sword, wisely lauded to its eminence after the flash of the sword had ceased to mark its mission of death on the field of battle. Foolish people began to write that no bright, spirited boy would stay in such a "humdrum, drudging place as a farm;" no capable, ambitious girl would be content to live all her life as the the wife of a farmer, and foolish editors indorsed the sentiments. Sermons were published in many of the Monday morning dailies, calling on the Most High to witness how the farm parents dwarfed and wronged their children with the poorest food the farm produced, that they might keep the best for market. One eminent minister of Chicago presiding over an aristocratic congregation had intermittent outbreaks of this kind, never forgetting to piously score the farm mothers who kept the preserves and cream from the children that something could be had on the table for appearance sake when the visitors came.

The inauguration of home departments in every paper gave women an opportunity to ventilate their mental commodities, and what in all the wide world needed weekly lecturing so much as the farm home? Unlike the preverted ministry that religiously trounced the farmers for not allowing their children enough to eat, the woman's lecture harp was thrummed at them for eating too much. Men and women had grown stalwart in physical vigor and renowned as intrepid leaders in every branch of our American history, living all their long, useful lives on the boiled dinners and "pie-crust made of hog's lard, filled an inch deep with rich fruits or richer mincemeats," of the country belongings; but the new lecture bureau saw physical decay for the Republic in every dish cooked for the farm table; and cake of molasses and lard—shades of mercy, what stuff for children! As no one else was sure they had the genuine lard the criminality in that kind of cake must be properly borne by the farm kitchen.

Then the general lecture field outside the home department opened upon us and we were pounded into the earth we owned for compelling "delicate childhood to eat fried salt pork." Attempting facetiousness the gentleman orator would say: "Of course, a man vulgar enough to raise a hog is vulgar enough to eat a hog, but lard save his children"

Retorts were sent sharply back from the farms that the most voracious eaters at the country tables were the town visitors fortunately invited to sit down at them, but the fusillade against "country coarseness" was not one bit abated. Nature says the youngest chick in the woods shall end its slumbers an hour before sunrise. The new lecture field knew a great deal more than the Creator about morning hours and the farms were the forts of stupidity to be bombarded with this knowledge. Wise old heads protested, but the repeated doses of poison had taken effect on the younger ones who were "not going to stay where they had to get up before sunrise to be ready to go to work in season, nor stay where people lived on fried hog and boiled cabbage and no more style about them than the cattle in the feed-yards." And there were numerous editors who reported and indorsed all these foolish sayings as "eloquent pleas for humanity in the rural districts." Story-writers seeking to portray a man running over with animal greed, who could not speak two words correctly in any sentence and habitually defrauded his children of the profit of their labor, took a well-to-do farmer for the character and his wife bungled language and counted pennies closer than he did. If she did not cram herself quite so full of boiled pork and cabbage as he made a practice of doing her shortcomings as an intelligent human being were rounded up with a general all-around ignorance and silly superstitions. Even now with our country homes full of papers and books of all educational descriptions the funny columns find nothing so brilliantly witty to the owners of them as the farmboy who is never smart enough to walk down a flight of stairs without instructive assistance in visiting city relatives, and could not spell his name if asked to register at a country hotel. The farmer himself is always pictured by these brilliant wits as an awkward half-baked specimen of human clay dressed in overalls, four sizes too wide, six inches too

short, shirt as much too small for him, excepting the sleeves, as the overalls are too large, an abnormally wide-brimmed, abnormally pointed-crowned straw hat, an impossible murderer of the English language and an impossible fool.

In December, 1879, Miss Mollie Morley, of Sauk Co., Wis., won the sweepstakes premium on butter at the International Dairy Fair in New York city. She was a farmer's daughter, earned a teacher's position, then left it to take charge of her father's dairy of 70 cows. Beyond the routine mention of the awards, nothing more would have been heard of Miss Morley had it not been for the advertising interests of the factory gentlemen in whose churn the prize butter had been made. Had Miss Morley churned a few pounds of butter, set it on ice until solid, taken a few cedar splinters and a ladle and molded the image of a child's head upon it, every women's newspaper column in the world would have told and retold the achievement and used it as a cudgel on the general obduracy of mankind in "keeping feminine ability in subjection." Miss Morley was beautified with good sense, good taste and the ease of self-reliance. Hardly out of her teens she won on merit alone a prize equally coveted by the best butter-makers of Europe and the best dairymen of our own country. She was a benefactor to every person who either eats or makes a pound of butter, but she was "drudging away on a farm," so the talent that brought perseverance and integrity to such a successful issue was morally lost on the character of our country girls and the appreciation due such skill. So long as the Miss Morleys have to hold a fourth-rate place in the scale of womanhood the cities and towns will have to eat whatever the corporation creamery sets before them as butter, with no choice in the hands that wash the milk-cans from which the cream is gathered by some stock yard man hired by the month to perform the delicate service of skimming the milk of a 10-mile route, and who shocks the little cannibals at the farmhouses by telling them he "is not paid for picking flies out of the cream," if they happen to fall into it while the new skimming process is going on. "They strain 'em out at the factory," he says.

Some one else aching for notoriety wants the farmers to build small cottages so the hired man can keep his wife on the place. This is the beginning of European peasantry and serfdom, but the women editors are the first to urge its consummation, "as it will take so much dirt and drudging off the farm-owners' wife," and if no one objects the European plan will be disgracing our agricultural customs before we realize what is going on. Once fastened upon us the boy who does not get married as soon as he is able to do a day's work in the field, will be expected to board himself in the "hired man's cottage," so as not to place himself in the way on a level at the table of the owners of the farm, or annoy the "lady of the farm-house."

Ouida, the famous English novelist, says the cause of the decay of France and the depressing unrest of England is this modern doctrine that women shall perform no labor about a farm, and men and boys as little of it as possible.

Another one of our citizens, overflowing with the ambition to be known as a reformer, is trying to induce farmers to "villagize" themselves by building their homes close together for social pleasure, leaving their farms "out in the country." The last the writer heard of him he was coming to Nebraska on his "farm-village" mission. An indignant populace should meet such a mission-carrier as an arch enemy of the farm and nation. The leadership that learns its first lessons of independence in the unmovable farmhome in learning that the most difficult task can be performed without waiting for others to voluntarily make it easy, and that the day's work can be done with no other company than the sustaining thought of well-doing, is growing less each year among the sons of our American-born parentage, so much so that one of our poets was recently moved to petition heaven to "send a statesman to this nation, who can see other than himself."

Our farms are going into the hands of foreigners and short-term occupancy of renters in small holdings, because reliable help is becoming more difficult each year to obtain, and the boys and girls are allured away from them as soon as they are old enough to work at anything; and now comes the beseeching cry from the source that sent to our farmhood the scorn of its occupation: "Don't come to the city—we are overcrowded, underfed, doubly taxed in our charities. We can't help you, we don't need you, we won't have you." The woman moralist berates the city employer for the starvation wages the competition of freezing, hungering women compels him to yield to, and that they will willingly accept and endure, rather than live in the "dreary, drudging" place these same social reformers have pictured our bountiful, busy farms to be; and the masculine solver of strikes and combinations is often no better situated on the balance-bar of consistency than his sister reformer.

When the pen of this writer has protested to the women editors that the "dreary drudging" they accredited to the farm was not only untrue but wilfully wicked, it has been set down as a pen not more than half friendly to "woman's emancipation from serfdom." When it has sent reminders to the political editors that the farmers were no less intelligent and no more "fringed with hay seed" when following their own political inclinations than when traveling the political route prescribed for them by party managers anywhere else, it has been rated as an enemy of the partisans likely to lose the most from the independent action of the farming citizenship. When returning to the contest with either of these editors to assure them that this is not only a country of the free speech of accusation, but a country equally as free in the speech of defense, it has usually found itself most effectually suppressed.

The children of our American farm parentage have been disseized of their inheritance of independence and soundness of character through the false impressions made upon their minds by foolish writers and lecturers through the medium of the general press. The commercial diamonds of individual success thus thrown away, being gathered up by enterprising, sagacious men, form some of the strongest component elements of some of the corporation power that is taxing our mental energies to the utmost to find release from. Our agricultural journals have made heroic effort to counteract the force of this bad education that costs the public nothing in the beginning but the willingness to listen approvingly. When other journals have attempted to render our farm editors assistance in this matter they have almost, without exception, treated the subject so apologetically that the false educators have had full benefit of whatever doubt the cross-firing might have created in the minds of the young. We have allowed the counter-currents to be planted that make the storm. The only way of safety open to us is a common-sense treatment of the facts that have been blown into our faces and stand challenged before our eyes.

As this paper deals exclusively with "false impressions of the press," those who have done good work anywhere in behalf of true impressions on farm life have no part in it but the unlimited gratitude they merit, whether in pulpit, press or common life.

YOUNG FOLKS' COLUMN.

The Linnet and the Canary.

Written for the RURAL PRESS by M. PULSIFER.

The creatures we call dumb are just as capable of making themselves understood by us as are the foreigners who come to us ignorant of our language, and thus obliged, by our ignorance of theirs, to often express themselves wholly in pantomime in making their wants known. Birds and animals employ this method quite as effectually, as we should all learn if we gave them the same attention as is bestowed upon the foreigner. Our so-called dumb pets, friends and servants, are not given credit by the generality of persons for half the sense and intelligence they are endowed with, otherwise, I believe they would all receive more kindly treatment from their owners and captors.

I have had many and various pets, and I think none of them displayed more human sagacity than did my several canaries, the last one of which is the subject of this truthful narrative, and will, I hope, please the young readers of the RURAL PRESS.

His name was Robin, and he could imitate one very perfectly—in fact he had a medley of songs, any one of which he seemed to prefer to the one of his own kindred. He was not an affectionate bird, but friendly to all and afraid of nothing but hats and bonnets, which articles, on or off the heads of their wearers, would almost frighten the little creature to death. He was very neat and particular and proud, and knew precisely how much I had to do mornings before I could put his house in order for him.

To test the correctness of his observation, I would sometimes sit down to my day's work without cleaning his cage. He never failed to remind me, and most vehemently. He would be very indignant and scold me roundly for my supposed carelessness, something he never did when all went on in proper order.

He knew when any request was made in his behalf, as I proved many a time. Whenever I returned after any absence, he expected something, like a child. He would scream to call my attention; then he would hop down and search all over the floor of his cage and pick at nothing; fly upon the perch, turn his head sidewise, scanning again the sanded floor, crying very pitifully the while. If I did not finally humor him, he would sit moodily all day, the most choice offering of food failing to conciliate him. On the other hand, the least thing given him at those times would satisfy his whim. He seemed simply to want to be remembered. It would require many columns to tell the things this bird did, all showing a high order of intelligence, but I will omit all that and proceed with the story.

One evening in early October my mother saw a small object moving along slowly toward the open door of the woodhouse she had gone out to lock. Stooping and looking more closely, she saw it was a bird, which she hastily picked up and brought into the house to show sister and myself. It was a Linnet, just escaped from the cruel captivity to which some thoughtless boy consigned it, and was seeking safe refuge for the night as best it could. Its condition showed it had been kept in a box and feed on soft food, its body being glued over with the same; its tail and wing feathers were gone. A great ball of the miserable provender given had accumulated and hardened upon its upper beak, adding much to the grotesque appearance of the little refugee. It was a mere skeleton, and very hungry, and, as was natural under those conditions, very tame, but was quite well.

What could I do with or for it? Nothing better, much, than it had been accustomed to, unless Robin would receive the poor thing into his house and give it hospitality. This, to the surprise of all, he did, and with every demonstration of pity. He immediately showed the Linnet the seed and water, to which he lost no time in helping himself, Robin standing close by him all the time, talking very softly and inspecting the sorry plight of his dress. He succeeded in picking off much of the dried food from the Linnet's coat, and seemed to feel very much concerned about the lump that so disfigured his countenance and never lost an opportunity of tapping a stout peck at the same so long as he could see.

As darkness came on I asked Robin if he was cold, whereupon he turned himself into a fluffy ball, with only his tail and tip of beak to show that he was really a bird. That transformation meant "yes," so I set the cage in its usual place and covered it partly over, when Robin crowded close up to the dirty, and perhaps lousy, Linnet and went to sleep.

Next morning all was harmony in the birdhouse, and I was very glad to think the Linnet would have a good home and better company until he should again be able to take care of himself in the great world outside. I did not, however, exactly realize this expectation. Robin seemed more impatient for his bath than usual, or so I thought; but it was for his guest he was anxious about the bath.

I always took the cage from its bottom and set it over a big saucer of water, for the common bathing dish for canaries is a miserable thing, being so narrow as to break the feathers and often injure the wing itself. Some birds, once hurt in this way, will not take a full bath for weeks, but just wash their heads in their drinking cups.

It was evident that Robin thought Linnet needed a bath, and doubted not that he would plunge in at once. Linnet did no such thing, nor did he manifest the least intention of doing so. Robin was getting uneasy and put in the time testing the temperature of the bath and washing his pretty face, very likely thinking of the unsightly lump on Linnet's nose. Tired by long-waiting, he began sternly lecturing the dirty stranger. This not having the desired effect, he went after him and tried to push him in, in which effort he once succeeded, Linnet falling plump into the water, to Robin's great delight; but Linnet did not feel that way and quickly scrabbled out.

Then it occurred to Robin that perhaps he did not understand the process of bathing, so he went in and called loudly for Linnet to look and see how it was done. Linnet paying no attention whatever, he looked up at me and implored my aid; finding me quite as stupid as the stranger bird, he very plainly told us to go to Halifax, and proceeded in sullen silence with his own ablution.

Half an hour later, when Robin's coat was dry and the cage put back upon the dry cage-floor, some unexpected fun began.

Robin was wholly and bitterly disappointed in the character of his unbidden guest, and had determined he should remain no longer under his roof.

The minute the cage was in place he flew at the Linnet and fought him furiously, the assailed only trying to save himself by crouching in corners or climbing to the housetop. I could not permit this abuse of the defenseless Linnet, so I got a stick, thinking to frighten Robin and thus distract his attention from the poor, tired bird; but it had no terrors for him, so I opened the cage, hoping Linnet would come out, but out flew Robin instead, and, before I could scarcely realize it, dived at my face as fiercely as he had at the Linnet, screaming with rage and fury. Before I could get hold of the little savage he was in the cage again, determined to get the obnoxious Linnet out at any cost. In a few seconds he was in my face again, but not this time being taken by surprise I closed the door on him and Robin was himself evicted.

Then he fairly danced and stamped with anger, as naughty children do sometimes, flying at me to emphasize his very intelligible actions, which translated into human speech would be this:

"You brought to my door an escaped and starving prisoner, to whom I most kindly gave food and shelter from the cold damp night; the beautiful day with warm sunshine has come once more, and I offer him the greatest of all luxuries, a bath, which the dirty, ill-bred creature most indifferently refuses, and therefore I will no longer tolerate him in my house! Now take him out or I'll kill him!"

The only lack of sense shown by Robin in this affair, in human estimation, would be that he seemed not to understand it was quite impossible for Linnet to bathe, having no wings; but I firmly believe Robin knew enough to have bathed the bird himself, if it would only have stayed in the water.

Next day another cage was procured for Mr. Linnet. When Robin was again permitted to enter his home, he did so with great exultation over his victory, strutting up and down his perch just like any other lord of creation who had worsted an opponent; but he was in a very rumpled condition, and knew it, and in a few minutes demanded another bath to wash off the contamination received in his efforts to drive the Linnet from his domicile. He talked the whole matter over as he sat pluming his feathers, and chuckled with contentment.

One beautiful morning six weeks later, when Linnet had grown a sleek warm coat, I opened the door of his cage, from which he darted out like an arrow and with such a sweet, joyous song that it gladdened my heart, for no sound had he made in all the time I had him in charge.

Both birds were happy once, Robin in the solitary possession of his cage, which he loved, and Linnet in the regained freedom to which he was born.

A YEAR ago, Planter Wolf, of Knoxville, Ark., had an arm pulled off while showing a negro how to operate a cotton gin. Yesterday he was instructing another negro, and lost his other arm. Mr. Wolf's instruction is now at an end, as he is out at the arms. But then Mr. Wolf's way of operating cotton gins was not a good one.

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Does the Grange Pay?

We answer, yes. It pays in many ways. The Grange has developed new life among our farmers. It has set them to reading and thinking for themselves. The Grange has been a school for mutual instruction. The frequent meeting together to compare notes has been found to be wonderfully beneficial. Many a farmer has learned in the Grange how to best cultivate his land so as to enable him to obtain the largest product at the least expense. He has learned in the Grange and by reading his Grange paper, which, perhaps, formerly he did not take, the best mode of rearing stock and improving their breed. He has learned from the Grange debates the distinction between true and false economy, and to practice the former and avoid the latter. The Grange instructions have directly benefited the farmers of the country to the value of many hundreds of thousands of dollars in developing the hidden resources of their lands, in systematizing farmwork and in putting more thought and brains into the crops.

The benefits derived from the Grange, however, are not confined altogether to dollars and cents. That view alone of its benefits would be very narrow and sordid. The Grange has developed a new life among the farmers all over the land. Its benefits in that direction have been seen and recognized in at least twenty-six different States in which it is now flourishing. The social features of this organization have wrought wonders in thousands of our farm homes all over the country. More books, more music and more papers are now found in our farmhouses, and the boys and girls, who have heretofore found farm life irksome, are not leaving the old homestead, as they formerly did, to seek the more dangerous attractions of city life.

"Great, indeed," as some one has said, "are the changes which the Grange has introduced in the way of improved social intercourse and intellectual effort among farmers." This change has astonished the nation, and is fast bringing to the front men of strong minds and great intellect, and who are, in many ways, taking the lead in social, political and economic progress. The day has passed, never to return, when farmers were not expected to think for themselves. They are now doing a large amount of thinking, and, what is better still, giving others who needed such prodding, occasion to do much thinking in a direction quite different from their heretofore lines of thought.

"The industrial and producing elements of city and town and country are joining hands in the great revival of human rights, and in the onward march of material, social and political progress." These are some of the ways in which the Grange is made to pay.

THE SOLID CORNER STONE OF THE GRANGE should be mutual trust, mutual sympathy and mutual helpfulness. Patrons should know each other better and trust each other more. They should be men of worth and integrity, free from selfishness and distrust. The Grange organization in its tone, aims and purposes, seeks to correct evils of every kind, to encourage and build up everything that is good and enduring. The good Patron must be a man of integrity. He must be patriotic and seek ever to promote the public good, in doing which he will also find his own interest advanced. He should be a man of thought and reflection, else he will not know how to direct his own industry to profit. Without well-directed industry and wise and prudent economy no farmer can prosper. A good Patron will not be boastful of his knowledge. He must be too wise to be vain and self-conceited. Vanity and self conceit in any one are disgusting and odious to others, and infallible proofs of a weak intellect and corrupt heart.

THE GRANGE AND THE MIDDLEMAN. The middleman occupies a central position between the two extreme classes of the people—the producer and the consumer. He is sometimes a necessary evil; oftener a needless one. His presence is due mainly to the unthrifty or neglectful habits of the producers, who too often neglect to make proper arrangements for the distribution of their products. The middleman is shrewd and has a keen scent for the best end of a trade. Like the railroad-man, who is also a middleman, he generally charges for distribution all the traffic will bear. He knows a good thing for himself when he sees it, and he generally sees everything, in his particular line, that is worth seeing. It is one of the leading objects of the Grange to dispense, as far as possible, with the services of the middleman. Various means are employed to accomplish this end, one of which is to secure the most competent and faithful persons for such service, and to concentrate as much business as possible in the hands of one person or firm. Another method is to substitute for the ordinary middlemen those whose interests are made identical with those of the producers. Already much saving has thus accrued both in distributing produce and in purchasing supplies. Of course such advantages accrue only to those who come within the circle of such as make this thing a matter of study and business. It would be better if farmers could be more generally induced to put themselves in the way of the more thorough cooperation and education as practiced and enjoyed by members of the Grange. Farmers who are not Patrons would do well to consider these things more carefully and act upon their convictions.

The Secretary's Column.

By A. T. DEWEY, Secretary State Grange of California.

SEVENTH DEGREE CERTIFICATES.—We learn from N. G. Sec'y Trimble that he expects to be prepared to issue certificates for seventh degree about the middle of November. We believe this will be the first instance in which certificates for that degree have been issued.

STATE GRANGE FINANCIAL STATEMENT.—Receipts during October, of general fund, $338.43; disbursements, $367.65; balance on hand and in the treasury, $797.54. Receipts of lecturers' fund, $153.95; disbursements, $64.80; balance, $1869.63. Total balance in both funds, $2666.82.

DRIVE AHEAD.

Since the State Grange session very few Granges have reported progress. At that meeting, receiving reports of State officers and having a general conference among Patrons from all over the State, representatives and visiting members, it would seem, should have returned and begun the work of the new year with enthusiasm. We trust that the election excitement has only temporarily smothered the glowing flames that are alive in every Grange in the State, ready to burst forth in renewed energy in the next few weeks.

THE WORTHY LECTURER can do his fellow-Patrons a favor by communicating at least a short lecture on the late session and future lines of work for his constituents, through the columns of the PRESS. Give us some suggestions and advice for the laborers of your jurisdiction, W. L.

WHAT will be the work of the National Grange at Concord? These are stirring, progressive times. The Grange may be denominated the first leader in starting the great battle of progress and reform that is now waging in favor of producers and laborers. Certainly the coming session should be one of great moment, thoughtful, earnest, progressive, and fully up to, if not just a little ahead of the times. The annual address of Worthy Master Brigham and the expressed sentiments of his supporters from nearly every State in the Union are now looked for with interest.

THE PRESIDENT has set Thursday, Nov. 24th, as Thanksgiving Day. Let every Grange hold a juvenile session and make a pleasant season in our new Grange year, especially for the youth and the aged. Then the middle-aged cannot but enjoy it.

GENERAL DEPUTIES SHOULD PUSH THE WORK.

Until the worthy master appoints his new general, county and district deputy lecturers, the old ones are in full standing and expected to push the work. Let those who attended the State Grange at San Jose visit every Grange and report the same, advise and assist in the planning of an active year's work. During the last days of official duties, let each one try and make them the brightest and most effective of all.

ALL State officers and deputies are invited to send items of information for this department to the secretary of the State Grange, those for the P. of H. Department in general to the editor of the RURAL PRESS. Write often for one or both.

OFFICIAL ADVOCATE.—While the appointing of an official medium of communication is of great importance to the Order, it is of still greater importance that the officers and members of the Order send information to the Grange advocate for publication. It is the only way that the paper can be made of efficient value. Do not forget this, officers and lecturers.

WE should like to see the National Grange invited to hold its next session on our Pacific coast. Notwithstanding the great pleasure enjoyed by the National Grange on their visitation to California, we believe that they would be equally well gratified by holding a session in Oregon and becoming acquainted with its grand scenery and vast and wonderfully varied and productive lands. Certainly Washington and California State Granges would do their best to help Oregon entertain the National Grange, could it be induced to hold its session at Salem, the capital city of our neighboring State.

VISITING OREGON.—Mrs. Nettie Jones Bramman, of Temescal Grange, is now on a visit to Oregon, and we hope soon to hear some good Grange news from that jurisdiction.

A SACRAMENTO COUNTY FARMERS' INSTITUTE. Sacramento County Pomona Grange has appointed Mrs. Hattie S. Jones of Sacramento a committee to obtain the necessary information in regard to successfully holding a Farmers' Institute at the Capital City in the near future, and we have been requested to send such information as we can conveniently obtain for that object, which request we shall cheerfully comply with. In the meantime, we ask other Patrons and friends to forward Sister Jones any hints or information they can to help the cause along. Sacramento county should certainly hold yearly two or more profitable sessions of a County Farmers' Institute. We cannot too strongly urge all farmers and citizens who are fond of the farm and rural homes, the advancement of country life and prosperity of rural citizens, to join heartily in this undertaking. It is quite meet and proper that Pomona Grange of Sacramento should take the lead and hold the first meeting with as little delay as feasible.

FOR the benefit of those who may wish to communicate with members of the Committee on Women's Work, we publish the following list recently furnished the chairman: Mrs. Hattie S. Jones, chairman, Cor. 21st and Y streets, Sacramento; Mrs. E. Z. Roache, Watsonville; Mrs. Amos Adams, San Jose; Mrs. A. Smith, Vacaville; Mrs. Mary E. Saxton, Santa Rosa; Mrs. S. J Cross, East Oakland; Mrs. S. H. Dewey, 1304 Franklin St., Oakland; Mrs. Bates De Hart, Hollister; Mrs. Mary E. Merrill, Stockton; Mrs. H. C. Raap, Martinez; Mrs. Mary E. Donaldson, Pleasant Grove; Mrs. W. W. Kilgore, Grimes; Mrs. Maggie D. Brainard, San Jose.

WHAT GRANGES will decide to hold Thanksgiving reunions? Every Grange can give the children a thankful, jolly occasion once a year at least. It ought to be a good time for starting Juvenile Granges under the National Grange plan and ritual where the same can be inaugurated successfully. Sister Mary Pinkerton of Jolon is making a laudable effort for the establishment of a Juvenile Grange in connection with San Antonio Grange. We hope that her efforts may be crowned with success, although we hear very little of results coming from the effort of the National Grange to establish Juvenile Granges. Perhaps it would be a good plan to appoint a committee on entertainment for the children of every Grange, and at a recess held once a month, introduce them within the gates to listen to such exercises as can be appreciated by them when it is not feasible to make juveniles entertainers with the older members of the Grange.

THE *Farmers' Friend* says: We desire to emphasize the fact that the Grange is a nonpartisan organization, and that questions of a purely political character (we use the term in its ordinary acceptation and not in its technical sense) are not debatable at a Grange meeting. But we would state with equal positiveness that admission into the Order does not disfranchise a man. He remains a citizen, charged with all the duties and responsibilities of citizenship, and has as much right as any one else to stand and defend his political preferences. In doing this, however, he should subordinate party fealty to the general good, and especially to the advancement of the cause of agriculture and the interests of the farmers, who are the mainstay of our country.

ELEVATE THEIR LIVES.—Mrs. S. C. Mudge at Williams' Grove Picnic, Pa., said: "Sisters, what will it matter by and by that you have kept your homes in faultless order if you have neglected the culture of your own and your children's minds? You will be remembered only as a drudge that was born, that worked and died, by your children. They cannot remember you in any other sense, for they never knew you in any other; and if their education is neglected, they must go through life on the same level. But give them simple surroundings and an education if you cannot give them both, and you give them a higher life, a broader view of life, a purer life that is unknown to the uncultured mind."

THE NATIONAL GRANGE has taken a stand. It is not a political machine. But it goes boldly before legislatures and courts and the general public, to assert the needs and the rights of the farmer. It does this temperately and firmly, and knows no such word as fail. Its achievements in the past are the best guarantee for its success in the future. Meanwhile it is carrying into the scattered and often isolated farmhouses of the nation a sense of brotherhood and social fellowship, an atmosphere of sound morality, and high regard for religion, which comforts the hearts of thousands of men, women and children, and makes farm life better, purer and nobler. God bless the Grange.—John Trimble.

A CAREFUL study of the methods pursued by other organizations to increase their power and influence will help Patrons in the accomplishment of the same purpose. It is not enough that the principles we advocate are just and right. We must lead others to the same conclusion, and induce those who are engaged in the same pursuit to unite with us. Careful inquiry discloses a vast amount of ignorance, even in farming communities, concerning the intents and purposes of the Grange. Now, the way to get these men to join us is to familiarize them with the views we hold, and get them interested in the work that most intimately concerns them. There are only two ways of doing this—by personal visitation and by diffusing among them Grange literature. The first is, at best, often inconvenient and impracticable. The second can always be made available at comparatively little cost. One or the other of these methods must be adopted if we wish to succeed. Other organizations are pursuing a similar plan, with gratifying results to themselves. Remember, a good officer studies carefully the tactics of his enemy, and it will do Patrons no harm to do likewise.—Farmers' Friend.

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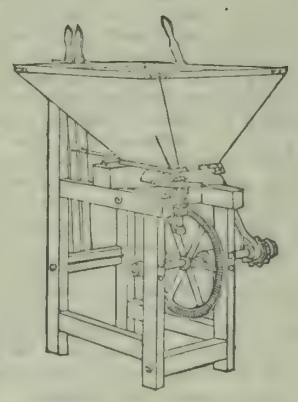

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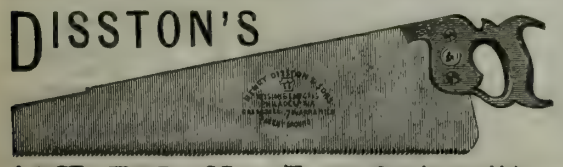

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AGRICULTURAL NOTES.

CALIFORNIA.

Butte.

EARLY-RIPENING OLIVES.—Oroville *Register:* Dr. W. E. Mack has a large number of olive-trees growing at Paradise in this county, and as the altitude of that place is nearly 2000 feet, he has been anxious to know whether the fruit would ripen there as early as in the valley and amid the low foothills. Greatly to his surprise, when the olives turned black this fall—the first fruit borne upon his trees—he found that they were a week or ten days earlier than any in the lower portions of the county. He feels greatly pleased with the result of his experimenting, and will this winter add another thousand to the four thousand trees that he now has on his land.

Fresno.

VALLEY APPLES.—Reedley *Exponent:* Rev. T. J. Bauder has brought to this office some of the finest apples we have ever seen in this State. They are of the White Winter Pair Main variety and measure 12¼ inches in circumference. These apples are grown from three-year-old trees. An idea prevails, and it may be to a certain extent true, that apples grown in the valleys of California lack in a certain degree that flavor which they possess when grown in a higher altitude or colder climate, but there are certainly exceptions to this rule, as specimens raised here such as above referred to fully attest. When proper care is used as to variety, with proper irrigation, apples can be and are raised here that are good enough for any mortal to eat. A more wonderful and luxuriant growth of vines and trees cannot be shown in the State than that seen on Mr. Bauder's place adjoining town, and in brief we say it is wonderful. Seeing is believing, and to see it simply silences criticism and dispels every doubt as to fruit culture in this vicinity.

Inyo.

A HIGH FRUIT ORCHARD.—Homer *Index:* J. L. C. Sherwin, the altitudinous professor of horticulture and pomology, of Round Valley, was here this week with a load of his produce, which was good, though raised at an elevation of 6700 feet above sea level—the highest fruit farm on the whole continent.

Kern.

LARGE OWNERS OF LIVESTOCK.—Bakersfield *Californian:* Miller & Lux have at this time on their great ranch 28,000 sheep, 35,000 cattle. 6000 hogs, 12,000 tons of alfalfa hay, 28 000 sacks of barley, 12 000 sacks of wheat, 5000 sacks of oats; also 3000 acres of Egyptian corn, which will produce nearly 6000 tons of this cereal food. Messrs. Haggin & Tevis' lands also show up 60,000 head of cattle, 5000 horses and 24,000 tons of hay.

Lake.

LARGE STOCK RANCH.—Klamath Falls *Express:* John D. and John S. Carr have leased for five years the big "A. L." ranch, near Silver lake, Lake county, belonging to the Sharon estate and also the extensive grazing lands in Sycan, and during the next month will drive 3500 head of steers from this county to their new possessions. John S. Carr, who was in town Monday, says that G. H. Hayes will superintend affairs there and will build 20 miles of wire fence and make other improvements. "We won't have to feed much this winter," said Mr. Carr, "as the bunch grass is already ten inches high in that vicinity." The Carrs have already turned off 1600 head of cattle this fall, and 1500 more will soon be driven to Gazelle.

Los Angeles.

MEETING OF THE HORTICULTURAL COMMISSIONERS OF THE SIX SOUTHERN COUNTIES.—L. A. *Times:* The Association of the Horticultural Commissioners for the six southern counties met in the rooms of the Chamber of Commerce. There were present Commissioners John Scott of Los Angeles, H. Hamilton and A. Rafferty of Orange, N. H. Claflin and N. E. Collins of San Bernardino J. H. Jones of San Diego, J. E. McIntyre and H. T. Snow of Ventura. Prof. Coquillett, who has just returned from an extended trip of investigation, at the order of the Pomological Department at Washington, to determine the good result, if any, which has been brought about by the recently imported Australian parasites, was present and made a report to the commissioners. In all his visit through Alameda, Santa Clara, Santa Barbara, Orange and Los Angeles counties, where the bugs had been placed, the professor said there was but one place in which he found the beetles alive, and that was Santa Barbara, where 300 or 400 colonies had been placed. A committee of one from each county was then appointed as follows: H. Hamilton, Orange; J. H. Jones, San Diego; W. E. Collins, San Bernardino; John Scott, Los Angeles; J. H. McIntyre, Ventura, and Mr. Eustis of Santa Barbara, to collect facts in relation to some of the charges which have appeared in matter emanating from the office of the State Board of Horticulture, reflecting upon the conduct of the commissioners of southern California in the course adopted by them in the parasite matter. Much of the discussion brought up was upon the matter of the fumigation of trees to kill the red and yellow scale and other insect pests, and it was also urged upon the growers to continue with their work by this process, as the parasite had been found to be entirely worthless as a destroyer of such pests.

Nevada.

GOOD GRAZING.—Grass Valley *Telegraph:* The feed for stock in the lower foothills is just now splendid. Mr. John Davis, who was in town yesterday, informed us that he has been all over the foothill ranges and he never saw the grass better nor as good before at this time of the year. All the cattle are fat and then, too, there are more cattle and horses in the foothills than heretofore. The farmers are increasing their stock and at the same time improving it. In a very few years Nevada county will be able to compete with any county in the State for the quality of its livestock.

Orange.

PAMPAS PLUMES FOR GERMANY.—Santa Ana Cor. Los Angeles *Times:* The cultivation of pampas plumes has proved a profitable undertaking for a number of Orange county gentlemen. Max Nebelung, of Anaheim, his shipped his crop of plumes, numbering 160,000, to Hamburg, Germany. This one crop alone filled two cars and was shipped to New York, from which point it went by ship to its destination.

A FINE ORANGE GROVE.—Orange *Post:* One of the finest-appearing orange groves in the vicinity of the northeast part of this city is the property of Prof. M. Manley. The location of the orchard is considered an exceedingly good one, being at a convenient distance from the foothills on one side, and not too far from the Santiago creek on the other; the soil is naturally adapted to the growth of the orange, and has been further improved by liberal quantities of fertilizers and has otherwise been well cared for. Under these favorable conditions the trees are strong and vigorous and have made a wonderful growth, the dark green color of the foliage, so satisfactory to the eye of the orchardist, is in pleasing contrast with the distant hills and pastures which still retain a coat of brown. At the present time the trees are heavily loaded with fruit, which is apparently without a blemish. In consequence of this enormous crop, it has become necessary to prop the overladen branches and many thousands of poles are being used for this purpose. We are informed the orchard consists of some nine acres and it is expected that the yield of oranges will be about 5000 boxes.

San Bernardino.

THE SUGAR OUTPUT.—Chino *Champion:* On October 28th the sugar factory completed its work for the season, having made the last of its syrups into sugar, which has all been shipped. And now, again, the great factory is still and echoes the tread of the intruder. The entire output of sugar for the year is as follows:

From syrups held from 1891, lbs	518,000
From beets in July	780 391
From beets in August	2 415 406
From beets in September	2,934.646
From beets in October	949.598
From syrups of 1892	305.500
Total output, lbs	7,903,541

BEET LAND-RENTING.—*Champion:* We are informed by Mr. White that there have been rented for beets next year over 2000 acres of the Chino land. This is nearly all by the farmers who raised beets this year. Almost all who raised beets this year have applied for from two to four times the amount for next year. From the way applications are coming in, the present residents will undoubtedly rent about 3000 acres for next year. Then inquiries are being received by mail almost daily for beet land and information on beet-raising, profits, etc., which would indicate that this winter will see a large influx of farmers in this valley to engage in the profitable work of raising beets. From present indications, we may expect the rentals to reach nearly 4000 acres. This year the rentals were but about 1500 acres altogether, so that already this early in the season that is increased over 500 acres.

Santa Barbara.

FARM ORCHARDS AT PINE GROVE.—Cor. Santa Maria *Times:* The farmers of this section have been improving the prevailing fine weather by gathering corn, digging spuds and housing other perishable crops. The corn crop is very good here this year and potatoes are fair, but hardly up to the average. A good deal of brush land is being cleared in this neighborhood for the purpose of planting to fruit and nut trees the coming season. Jones & Maulsby are gathering their winter apples and pears, pruning trees and preparing land for planting an apricot orchard. Tyler Bros. are bent on more almonds and will plant 20 acres or more. Jerome Cash and C. H. Glines are talking orchard. S. B. Schauer will plant more trees. F. C. Twitchell is stuck on blue-gums. J. R. Norris advocates walnuts and will plant largely the coming season. The new buildings on the Fleisher place are about completed and they are still hunting for water. Mr. Patterson is clearing up his brush ranch with a view to preparing it for orchard purposes. The many orchards of this section will go into winter quarters in fine condition, with splendid prospects for a big crop of fruit next year.

Santa Cruz.

LARGE APPLE CROP.—Watsonville *Pajaronian,* It is now estimated that the apple crop of the Pajaro valley this year will not fall short of half a million boxes. Orchards have been overrunning estimates, and boxes have been in such great demand that it has been impossible to get an order filled right away either in this place, Aptos or San Jose. As it takes 500 boxes of apples to fill a car, it can be seen that the apple crop of this valley will be about 1000 carloads. That amount is nearly equal in carloads to the orange crop of the famous Riverside district this year. The Pajaro valley is now the leading apple district of the Pacific coast.

TREE-PLANTING.—*Pajaronian:* If the season is at all favorable for tree-planting this winter, there will be a large increase made in the acreage of young orchards in this valley. The good prices which fruit has brought the past season will be a great stimulus to increased tree-planting.

MORE BERRY FIELDS.—*Pajaronian:* It is very evident that there is to be considerable acreage of new berry fields in this valley before another season. Good berry land is in demand. When the reclamation of the slough country has been further advanced there will be lots of berry land in this district.

INCREASED SUGAR-BEET CROP.—*Pajaronian:* About 25,000 tons of beets have been crushed to date, which is an amount considerably in excess of the entire run of any previous season. There is a tonnage yet to deliver that will equal the amount crushed to date.

Shasta.

PAID OUT FOR FRUIT.—Anderson *News:* About $20,000 was paid for green fruit shipped from Anderson this season. If next year proves a good one for fruit, this amount will more than be doubled.

Sutter.

ADAPTABILITY OF SOIL.—Colusa *Sun:* A day or so ago we saw Mr. Nall, of District No. 70, drive up to Mazet's with a load of the finest-colored Tokay grapes we ever saw. We asked him if he could doctor them up like some dairymen doctor their butter. He said it was the soil. He is over on Butte slough, and gets his Tokays finely colored, but a couple of miles from him, on the river, they will not color. The large black grape called the Bishop, he says, are the same. They have a splendid blue-black with him, while on the river half the grape sometimes remains of a green color. The raisin grape, however, does much better on the river. Every fruit has its peculiar soil that it likes, and to make fruit-growing profitable the grower must find it.

Tulare.

DRIERS PAY.—Hanford *Journal,* Nov. 1: The past week has been anything but propitious for the raisin man. Light falls of rain fell on Wednesday night and on Sunday morning, and the weather has been continuously damp and rather cold. Nearly the entire second crop of raisins is now on the trays, but as most of the raisins have been turned once, they are in good condition for the driers, which are now running in full blast all over the Lucerne valley. Now is the time when those who have no drier wish they had one, and every raisin-grower wishes that there was a distillery or some other manufactory here to which he could dispose of part or the whole of his second, and all his third crop of raisins, which must go for hog feed or remain on the vines to rot away part of the raisin-growers' profits.

Ventura.

THE ESTIMATE OF DAMAGE TO BEANS.—Ventura *Free Press:* The rain in the Santa Clara valley closed down the bean-threshing. In the extremely sandy district it is estimated that one-half of the beans were threshed out by the "elements." Fully one-half of the little white and lima beans were destroyed by east winds, and from a man who has worked 32 days on a thresher, it is learned that in 17 places at least one-half of the beans had been threshed and left on the ground by the wind or covered by sand. It is safe to say that beans will go up in price within a month.

Gas Machine.

The new improved AUTOMATIC GAS MACHINES stand unequaled on the whole Pacific Coast for lighting country homes, suburban residences, hotels, etc. The light produced by these machines is Bright, Clean and Steady, but soft and soothing to the eye. **Emitting No Smoke** and being uniform, it has no equal for reading by. The cost is more than One-Half Less than coal gas anywhere, it being but **$1 per 1000 cubic feet** These Machines are sold at **reduced rates, but every one is guaranteed to give entire satisfaction.** Before purchasing elsewhere, call and examine them or send for illustrated catalogue at Nos. 43-45 Stevenson Street, San Francisco, California.

JACOB SCHREIBER, Manager.

WANTED.
25 Bags Peach Pits.
Address, stating price,
Box 91, Templeton, Cal.

ALL THE SAME, ALWAYS.

SPRAINS.
MT. PLEASANT, TEXAS, June 20, 1888.
Suffered 8 months with strain of back; could not walk straight; used two bottles of **St. Jacobs Oil,** was cured. No pain in 18 months.
M. J. WALLACE.

BRUISES.
PITTSBURG, PA., 302 Wylie Ave., Jan. 29, '87
One of my workmen fell from a ladder, he sprained and bruised his arm very badly. He used **St. Jacobs Oil** and was cured in four days.
FRANZ X. GOELZ.

A PROMPT AND PERMANENT CURE.

SALE OF THOROUGHBREDS.

PROPERTY OF HON. L. U. SHIPPEE,

COMPRISING IN PART

STALLIONS By the noted sires LONGFELLOW, Imp. KING BAN, Imp. PRINCE CHARLIE (sire of Salvator) and MONDAY.

BROODMARES, The get of such celebrated sires as GLENELG, LUKE BLACKBURN, Imp. GLENGARRY, HINDOO, TEN BROECK, NORFOLK, JOE HOOKER, BULLION, KYRLE DALY, etc.

TWO-YEAR-OLDS and YEARLINGS By ST. SAVIOUR, WILDIDLE, Imp. GREENBACK, Imp. FRIAR TUCK, JOE HOOKER, FELLOWCHARM, MAJOR BAN and JOHN A.

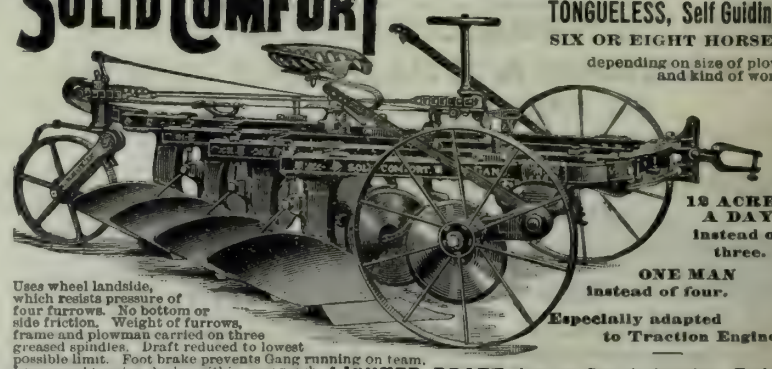
TO BE HELD AT

OAKLAND TROTTING PARK,
(SHELL MOUND STATION)

At 11 A. M., WEENESDAY, NOVEMBER 16, 1892.

KILLIP & CO., Live Stock Auctioneers,
22 Montgomery St., San Francisco, Cal.

SOLID COMFORT THE **"WONDER ON WHEELS"**
TONGUELESS, Self Guiding.
SIX OR EIGHT HORSES, depending on size of plows and kind of work.



12 ACRES A DAY instead of three.
ONE MAN instead of four.
Especially adapted to Traction Engine.

Uses wheel landside, which resists pressure of four furrows. No bottom or side friction. Weight of furrows, frame and plowman carried on three greased spindles. Draft reduced to lowest possible limit. Foot brake prevents Gang running on team. Levers and turning device within easy reach. **Driving,** Straighter Furrows, and **Adjustable frames**—can be narrowed or widened at will. Made with stubble, sod and stubble, or breaker bottoms. Ten or twelve inch cut.

LIGHTER DRAFT than any Gang in America. Easier

ECONOMIST PLOW CO., So. Bend, Ind., or Stanton, Thomson & Co., Sacramento.
☞ Special prices and time for trial given on first orders from points where we have no agents.
Our book, "FUN ON THE FARM," sent Free to all.

Gas or Gasoline Engines for Road Motors.

The increase of homes adjacent to cities has set inventive genius to work on the problem of safe and cheap motive power to propel cars on railway lines which extend in a radius of from five to ten miles around our cities and towns. A convenient and cheap motor is the gas vapor or gasoline engine. A practical application of this form of motive power to street car lines has been made by Mr. Daniel Best, of San Leandro, Alameda county. Some time in last January a railway line was projected from the terminus of the electric car line at San Jose to run out to Alum Rock Park, eight miles from San Jose, at the foot of Mt. Hamilton. This line has been completed for four miles and is now being built the entire distance. The Best gasoline engine is the motive power for conveying passenger and construction cars over this line.

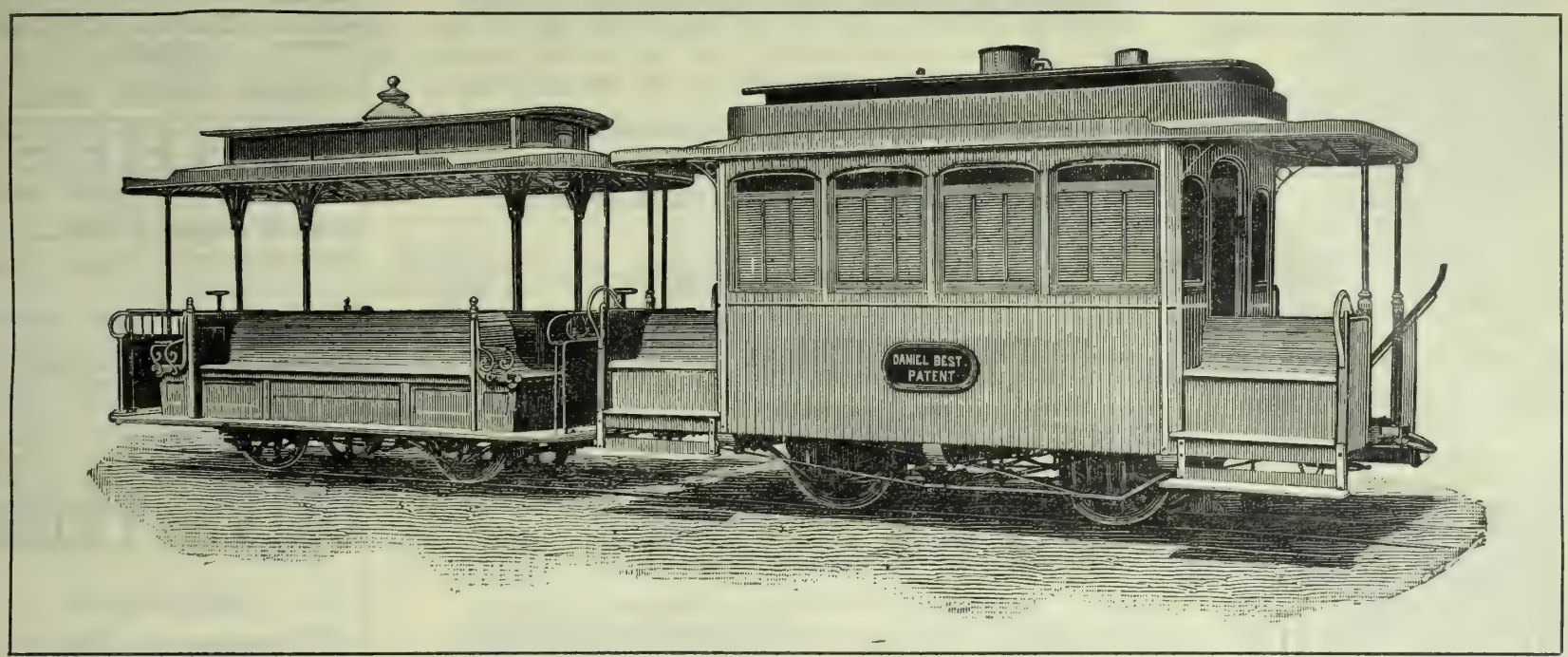
The Best vapor engine as applied on this line is a double-ender, the piston of each cylinder being connected with the main shaft. Each connects direct with the forward car axle by an endless chain. The number of revolutions per minute are 200 of the engine, and of the wheels of the car 100 per minute. The wheels are 30 inches in diameter; this gives a speed of 12 miles per hour. The speed of the engine can be varied at the will of the operator from 75 to 250 revolutions per minute. The engine is geared to the axle of the car direct from the crank-shaft, and at one side there is an intermediate gear which drives one set of wheels in the opposite direction from the crank-shaft. There is but one pair of wheels working at a time; one pair run one way and the other the opposite way.

The cost of operation is stated to be as follows: 9 gallons gasoline, at 14 cents per gallon, $1.26; 1 quart lubricating oil, at 10 cents, 10 cents; total, $1.36 per day.

The gas is all consumed and consequently there is no need of using any disinfectant, as there is no offensive smell whatever.

Mr. G. W. Dolly, the present engineer, who has been continuously in charge for the last three months, says: "We usually run eight miles an hour and from 10 to 14 hours per day, part of the time being consumed in hauling out the construction train loaded with gravel. In a cut on quite a sharp hill toward the mountain the up grade is four per cent; consequently, on the down grade, as you see, I throw off the current and move along at any speed I wish by natural gravitation."

There is no noise caused by the explosion of the gas that can be heard on the rear car, and the rumbling of car wheels is all of the noise that can be distinguished outside of the car containing the motor. The motor runs smoothly, without jerk or jar, and there is no inconvenience to passengers from smoke or disagreeable smell. On Sundays and holidays two passenger cars are attached to the motor car and from 70 to 100 passengers are carried at one load. The brakes are so constructed that the car can be stopped under full motion within five feet. The size of the car is 7x11 feet. Other suburban railway lines have been projected, but it seems that the problem of cheap transportation in this field has been settled by the improved Best gas or gasoline engine or motor. The cut shown on this page is made from a photograph recently taken and is an exact copy of the motor car and passenger car as it appears at the end of the line. We shall watch with interest the progress made in this new line of industry and from time to time shall note the progress, improvements and success attending the new feature in suburban railway lines.



BEST'S GAS OR GASOLINE STREET-CAR MOTOR.

THE buildings for the new meat-packing establishment at Rodeo are ready for the machinery, which will be placed by December. The big reservoir, which has a capacity of one billion, one hundred million gallons of water, is also constructed and being filled with mountain water. The packing houses and town of Rodeo will be supplied from this source.

A PERFECT SUCCESS.

"Keystone" Corn Husker AND Fodder Cutter.

Husks the corn and cuts the stalks into the best fodder known.

Send for our FREE book, "The Great Leak on the Farm."

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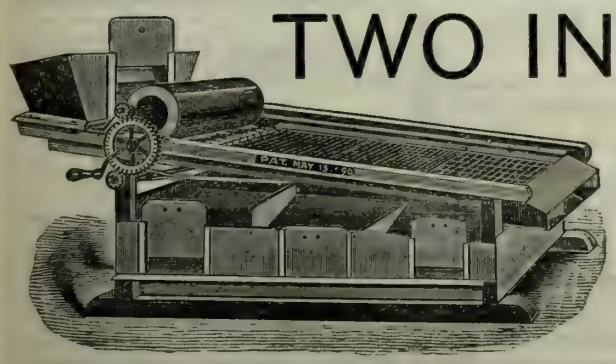
Much Improved for 1892.

TWO IN ONE.



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ECONOMICAL.

It is the best economy to have one machine which you can use for both green and dried fruit, saving time money and valuable space. No complicated machinery to get out of order and do imperfect work.

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No machine compares with this in speed. Will grade apricots for drying, also walnuts and pecans.

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☞ The above stock in both yearlings and June Buds.

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A BIG STOCK OF FINE

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No Substituting.

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Reasonable prices to dealers and canvassers. For particulars apply to

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Also, a general assortment of Apple, Pear, Peach, Nectarine, Plum, Cherry, Quince, etc., grown in sandy loam, without irrigation, which gives a fine proportion of roots. I offer no trees but what are grown in my own grounds and known to be true to label and free from scale bugs. Address: W. H. PEPPER, Petaluma, Cal.

Owing to age and poor health, I will sell my place and business at a bargain. Place consists of 250 acres of land, good buildings, 50 acres in orchard, and a large Nursery Stock, together with horses, wagons and implements, complete, for carrying on the business. A good opportunity for enterprising men with capital to step into a good-paying business. For further particulars address, as above.

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Apple, Pear, Plum, Cherry, Peach, Apricot, Nectarine, Quince, Grape Vines and Small Fruits.

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Orange, Lemon, Lime, Olive, Japan Persimmon, and all kinds of Nut-Bearing Trees Shade and Ornamental Trees, Shrubs, Etc.

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For the season of 1892-93 we are prepared to furnish a complete line of **Fruit** and **Ornamental Trees, Vines, Figs, Small Fruits,** etc., on short notice and at reasonable living prices. Our stock is free from insect pests, and for strength and health of root growth is not excelled, as we give this special attention.

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The New Yellow Freestone Peach.

FIRST AND BEST OF EARLY YELLOW PEACHES.

RIPENS IMMEDIATELY AFTER THE ALEXANDER (White Cling), which is the earliest peach in market.

Fruit is round, of medium size, **VERY HIGHLY COLORED,** flesh firm and sweet.

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A limited number of yearling trees for sale this season. Apply early before stock is exhausted.

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FRENCH PRUNES on Myrobolan, Peach and Almond Roots.

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All first class and best of material used, f. o. b.

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Every Facility for Breaking Colts Properly.
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HORSES BOARDED AT ALL TIMES.

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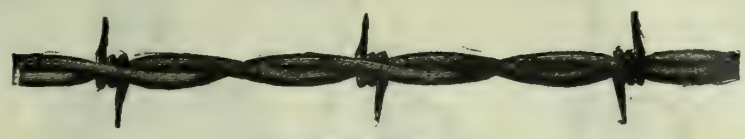
GLIDDEN STEEL BARBED WIRE.



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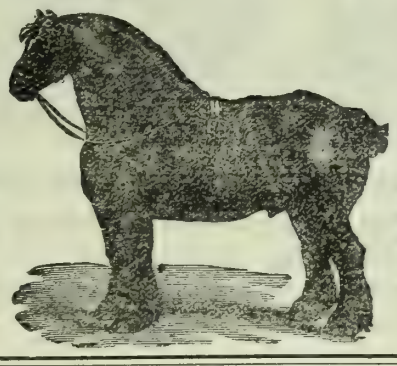

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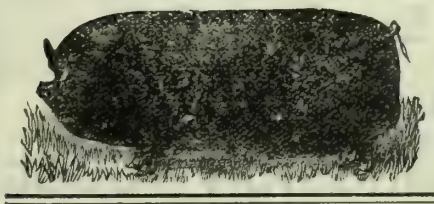
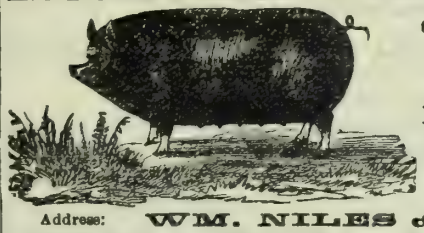
Should not fail to see our stock and get our prices and terms before buying as we are prepared to and will sell at prices that defy competition.



BERKSHIRE SWINE.
Prize Herd of Southern California.
6 premiums State Fair 1892.
9 premiums Los Angeles 1892.
PIGS OF ALL AGES FOR SALE.
SESSIONS & CO.,
P. O. Box 686. Los Angeles. Cal

HOLSTEIN-FRIESIAN CATTLE.

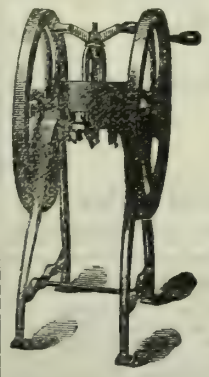


Registered Herd Book Stock of the Aaggie, Netherland, Neptune, Clifden, Artis and other families. None better.
JERSEYS,
Of the Coomassie, Alphea and other choice strains.
Poland-China and Berkshire Pigs.
POULTRY—Nearly all Varieties.
Third Edition POULTRY & STOCK BOOK, 50 cents y mail postpaid. Thirteen years experience on this coast.
Address: WM. NILES & CO., Los Angeles, Cal.

MANHATTAN STOCK FOOD.

RED BALL BRAND.

Genuine only with RED BALL brand.
Recommended by Goldsmith, Marvin, Gamble, Wells, Fargo & Co., etc., etc.
It keeps Horses and Cattle healthy. For milch cows; it increases and enriches their milk.
623 Howard St., San Francisco, Cal.



Mann's Green Bone Cutter

FOR POULTRY FOOD.

Patented June 15, 1886; August 20, 1889. Canada Patent, June 12, 1890.

WE WARRANT this machine to cut Dry or Green Bones, meat, gristle and all, by Hand Power, without clog or difficulty, or MONEY REFUNDED.
GREEN CUT BONE WILL DOUBLE THE NUMBER OF EGGS, will make them 25 per cent more fertile, and increase the vigor of the whole flock. COST OF FEEDING MATERIALLY LESSENED.
These Cutters are endorsed by all the leading California poultrymen. Send for a Catalogue describing all sizes of Cutters and containing vaulable information in relation to feeding green cut bones.

PETALUMA INCUBATOR CO.,
Pacific Coast Agents. PETALUMA, CAL.

Nancy Hanks

Record 2:04.

Trotted the fastest mile on record when hitched to a Sulky with Ball Bearing, Pneumatic Tired Wheels.

WE CAN FURNISH YOU WITH A
NO. 205 NANCY HANKS SULKY
With Pneumatic Tired Ball Bearing Wheels,
For $250.00.

This price includes the Regular Sulky Wheels as well, and either style may be used We solicit your order.
Remember, we give you the Regular Wheels in addition to the Pneumatic Tired Wheels. So you have two sets of wheels with each Sulky.

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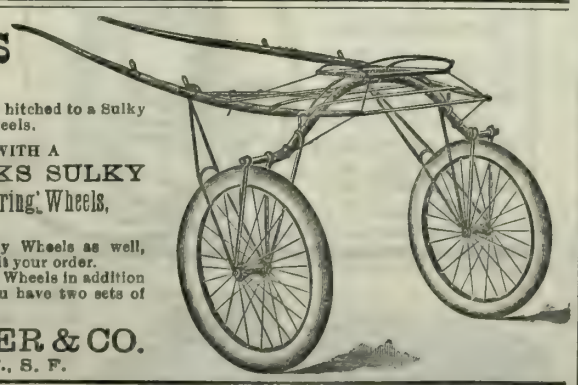
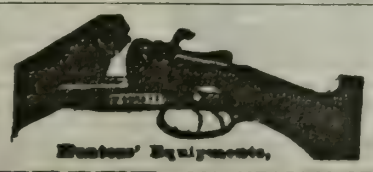


Send for Price Lists OF GUNS And all Articles used by Hunters and Anglers.



GUNS

GUNS SENT ON TRIAL.
OLD GUNS TAKEN IN EXCHANGE.

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GRANGERS' BANK

OF CALIFORNIA,
SAN FRANCISCO, CAL.
Incorporated April, 1874.

Authorized Capital	$1,000,000
Capital paid up and Reserve Fund	800,000
Dividends paid to Stockholders	720,000

OFFICERS.
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ALBERT MONTPELLIER.....Cashier and Manager
FRANK McMULLEN.....Secretary
General Banking. Deposits received, Gold and Silver. Bills of Exchange bought and sold. Loans on wheat and country produce a specialty.
January 1, 1892. A. MONTPELLIER, Manager.

SHROPSHIRES FOR SALE.

30 to 40 Thoroughbred and High-Grade Shropshire Rams Ready for Service.

This stock is the Best in the State, having been selected from the famous flock of the late Andrew Smith, of Redwood City

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OFFICE, 22 Fourth Sreet, San Francisco.
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FOR SALE.

Having decided to plant my place in fruit, I offer all my pure Percheron stock for sale, keeping only enough for working the place. Time will be allowed to all responsible purchasers that they may need, at 7 per cent.
WM. B. COLLIER,
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Calves, Yearlings and 2-year-olds
FOR SALE.
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Baden Station, San Mateo County, Cal.
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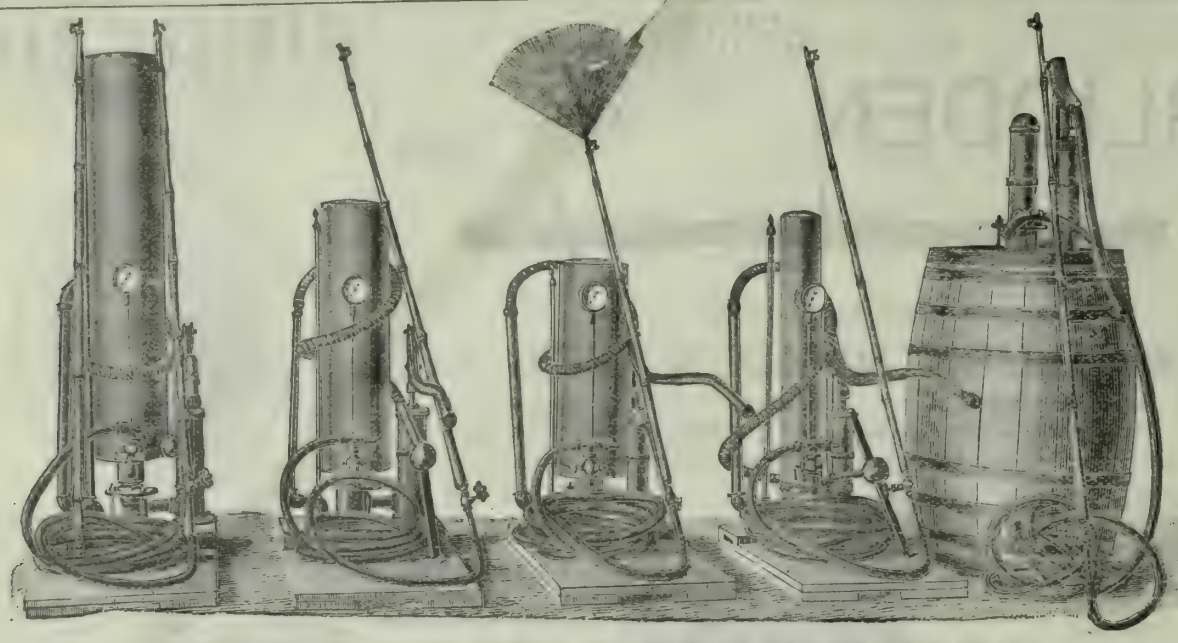
VETERINARY SURGEON.

MEMBER OF THE ROYAL COLLEGE OF VETERINARY Surgeons, London, England. Late Veterinary Surgeon in the United States Army. Veterinary Contributor to the "Pacific Rural Press." The diseases of all Domestic Animals treated on Scientific Principles. Special attention given to Chronic Lameness and Surgical Operations. 405 BRODERICK ST., SAN FRANCISCO. Calls to the country promptly attended to. Telephone No. 4667.

MONEY "HOW CAN I Make Some?"
By using the Pacific Incubator and Brooder, which will hatch any kind of eggs better than a hen. In universal use. Gold Medal wherever exhibited. Thoroughbred Poultry and Poultry Appliances. Send 8 cts. in stamps for 82-page catalogue, with 30 full-sized colored cuts of thoroughbred fowls, to Pacific Incubator Co., 137 Castro St., Oakland, Cal.

—THE—
HALSTED INCUBATOR
COMPANY,
1312 Myrtle Street, Oakland Cal.
Send Stamp for Circular.

POULTRYMEN, Hens are beginning to stop laying and consequently the price of eggs is advancing. Every one should now feed Wellington's Improved Egg Food regularly if they desire to have eggs to sell when they reach high prices. Get it of any MERCHANT or of Proprietor, B. F. WELLINGTON, 425 Washington St., San Francisco.



THOUSANDS OF THESE PUMPS ARE NOW IN USE ON THIS COAST.

They are made of the Very Best Material. Corrosive Washes DO NOT injure the valves, plunger-packing or cylinder.

Your neighbor will tell you that he can spray MORE TREES IN A DAY with the Bean Pump than with any other.

DO NOT FAIL TO USE THEIR NOZZLES.

SEND FOR CIRCULARS TO

The BEAN SPRAY PUMP CO., San Jose, Cal.

ALAMEDA STEEL WIND MILL.

10, 12 and 14 ft.

Cheaper than any First-Class Mill in the market.

Every One Guaranteed.

No bearings, no springs, no wheels to get out of order. The simplest mill in the world.

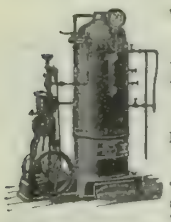
Agents Wanted

— ADDRESS —

TRUMAN, HOOKER & CO., San Francisco or Fresno.

SPECIAL VERTICAL ENGINES.

TWO TO SIX HORSEPOWER.



With Tubular Boilers, made of steel plates of 60,000 tensile strength.

Durable! Efficient! Safe!

Lowest Priced on the Market.

Material and workmanship warranted equal to those of any make.

Tested with cold-water pressure at 150 lbs. and they are warranted to carry that much steam pressure.

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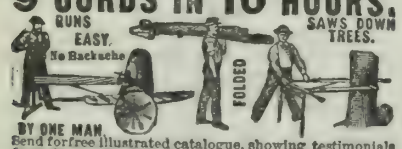
9 CORDS IN 10 HOURS.



Send for free illustrated catalogue, showing testimonials from thousands who have sawed from 5 to 9 cords daily. It saws down trees, folds like a pocket-knife, weighs only 41 lbs., easily carried on shoulder. One man can saw more timber with it than two men with a cross-cut saw. 57,000 in use. We also make larger sized machine to carry 7 foot saw. First order secures the agency. **FOLDING SAWING MACHINE CO.,** 241 to 249 So. Jefferson St., Chicago, Ill.

TREE WASH.

"Greenbank" Powdered Caustic Soda and Insecticide.

T. W. JACKSON & CO.,

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SPRAY YOUR TREES!

Whitewash Your Barns and Fences!

WAINWRIGHT'S PUMPS

Do Either Successfully.

Catalogue and testimonials sent by mail.

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No. 5 Spear Street, San Francisco, Cal.

California Inventors

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CONSIGNMENTS OF GRAIN, WOOL AND ALL KINDS OF PRODUCE SOLICITED.

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Full Cargoes of Wheat furnished Shippers at short notice.

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THE Most Efficient Wood Preserver.

APPLIED WITH AN ORDINARY BRUSH.

Protects All Kinds of Timber, Above or Below Ground or Water, from Rot and Decay.

CARBOLINEUM WOOD PRESERVING CO.

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Meat Chopper

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The Best in the World.

For Sale by the Hardware Trade.

Send for Catalogue

Enterprise M'f'g Co.,

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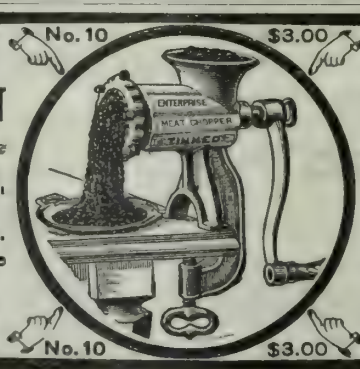
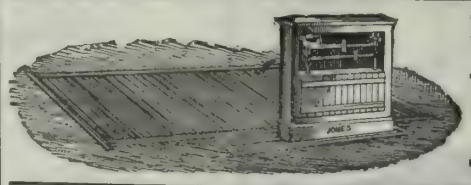


FOR CHOPPING Sausage Meat, Mince Meat, Scrapple, Suet, Hamburg Steak for Dyspeptics, Peppers, Hog's-Head Cheese, Chicken Salad, Hash, Chicken Croquettes, Codfish, Scrap Meat for Poultry, Lobsters, Tripe, Clams, Corn for Fritters, Stale Bread for Bread Crumbs, Cocoanut, Cabbage, Horse Radish, Vanilla Beans, &c. Also for making Beef Tea for Invalids, Pulverizing Crackers, Mashing Potatoes, &c.



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Price $66, Delivered Anywhere in the United States.

These Scales have STEEL BEARINGS, Not Wood—BEAR THIS IN MIND.

From 25 to 50 per cent cheaper than any other Scales of like quality. All sizes and kinds of Scales always in stock.

Truman, Hooker & Co., San Francisco

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MUCH OF THE PAIN, MISERY, AND MANY OF THE FAILURES IN LIFE AVOIDED Mothers and Daughters better informed concerning their own physical being and how best to DEVELOP, CHERISH AND PROTECT IT. Send or call. Consultation free. MRS. ALICE WELLS, rooms 15 and 16, 906 Broadway, Oakland, Cal.

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— AND DEALERS IN —

CALIFORNIA AND OREGON PRODUCE,

Green and Dried Fruits,

Grain, Wool, Hides, Beans and Potatoes.

Advances made on Consignments.

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Consignments Solicited.

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GREEN AND DRIED FRUIT, NUTS, PRODUCE, POULTRY, EGGS, ETC.

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MOORE, FERGUSON & CO.

WOOL, GRAIN, FLOUR

— AND —

General Commission Merchants,

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Members of the San Francisco Produce Exchange.

Personal attention given to sales and liberal advances made on consignments at low rates of interest.

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GEORGE MORROW & CO.,

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COMMISSION MERCHANTS,

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SHIPPING ORDERS A SPECIALTY.

BRAY'S SONS & CO.,

Successors to BRAY BROS Established 1855.

COMMISSION MERCHANTS,

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SPECIALTIES:

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Consignments Economically Handled.
Highest Market Prices and Prompt Returns.
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And Dealers in Fruit, Produce Poultry, Game, Egg Hides, Pelts, Tallow, etc., 422 Front St., and 221, 223, 225 and 227 Washington St., San Francisco, Cal.

RECULATE THE STOMACH, LIVER AND BOWELS, AND PURIFY THE BLOOD.

A RELIABLE REMEDY FOR

Indigestion, Biliousness, Headache, Constipation, Dyspepsia, Chronic Liver Troubles, Dizziness, Bad Complexion, Dysentery, Offensive Breath, and all disorders of the Stomach, Liver and Bowels.

Ripans Tabules contain nothing injurious to the most delicate constitution. Pleasant to take, safe, effectual. Give immediate relief.

Sold by druggists. A trial bottle sent by mail on receipt of 15 cents. Address

THE RIPANS CHEMICAL CO.,

10 SPRUCE STREET, NEW YORK CITY.

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SEWER, WATER AND CHIMNEY PIPE AND CAPS.

Send for prices on Sewer Pipe for culverts, for roads, and for draining lands.

JAMES M. HAVEN. THOMAS E. HAVEN, Notary Public.

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No. 530 California Street,

Telephone No. 1766. SAN FRANCISCO, CAL.

S. F. Market Report

Market Review.

SAN FRANCISCO, Nov. 9, 1892.

The past week was broken to such an extent by national and State elections as to virtually cause general trade in merchandise and farm products to be at a standstill. Now that it has passed and the results virtually known, it will be only a question of a few days before trade will resume its normal condition. The only thing which is liable to be a disturbing factor is the tariff, but as this will not probably receive attention for fully one year, trade will have, by that time, adjusted itself to the probable changes.

Wheat the past week held to fairly firm prices in all markets, at home and abroad. The opinion is gaining ground that the extraordinary movement of wheat to market has led to a large short-selling at home and abroad, and with strong holding by farmers, which usually obtains toward the close of the year at the East and in Europe, ought to bring about much higher prices before winter passes.

The local wheat market has ruled quiet but steady, with a strong undertone. The holdings are drifting more and more into strong hands, and with weak holders once eliminated, much better prices can be looked for with a certain degree of confidence. This opinion is based on the large tonnage (engaged and disengaged) in port; the strong statistical position of the cereal in the demand and supply markets of the world and a steady falling off in farmers' deliveries. Barley has held to firm prices, with slight fluctuations reported. Receipts the past week were quite free, but this was offset by a good demand from both consumers and the short interest on Call. The receipts of oats were quite free, but the bulk came to strong parties, which caused the improved prices to be fully maintained. It is reported that about all the surplus in Washington is under the control of one firm. If this proves to be correct, we can look with a certain degree of confidence for a strong market the remainder of the season. Corn has held barely steady. The demand is rather offish, and had receipts shown any material increase, lower prices would have followed. While rye and buckwheat have been more or less inactive, a firm tone appeared to have obtained throughout the week.

Bran has come in quite freely, and with an offish demand prices were rather in buyer's favor. Middlings have ruled barely steady. Free receipts of screenings from up north have been against the market. Roll barley has met with a continued free consumptive demand in the country. Both feedmeal and cracked corn have been only moderately dealt in. Hay has moved off fairly well, particularly the more choice grades. Owing to a steady improvement in pasture in the more favored sections of the State, range stock and dairy cows are not fed so much hay, which has lessened the call for stock hay.

Butter has continued on the down grade, and as sellers press the market buyers show a corresponding offishness. Receipts have been quite free, and with a restricted demand, lower prices and a weak market have resulted. It now looks as if those who persisted in closing their eyes to the the statistical position and surroundings in the State will be heavy losers. The RURAL PRESS, editorially and also in this department, gave from time to time facts on which to form a correct basis for operation, and those who have followed the course outlined have no cause for regret. Cheese has held fairly firm. The supply is not large, while the demand has been steady. Eggs have sold higher. The higher prices are increasing shipments from points east of the Rocky mountains to this State. If it were not for these receipts, prices would be out of the reach of all. It is said that several parties in the interior are buying eastern eggs and, shipping them to their place of business, repack them and return them to this city as California eggs. In this way they make a handsome profit.

Garden truck has not shown any material change. Onions have held to fairly steady prices. The receipts of potatoes have continued heavy, but the market has held strong for the more choice good-keepers. Defective, diseased and otherwise poor potatoes have met with an indifferent demand, with sales largely in buyer's favor.

The green-fruit market has shown no material change the past week. The election largely interfered with trade, and only the more choice and good-keeping grapes, apples and pears met with much of an inquiry. The market is being cleaned up of trashy apples, and as supplies lessen the market strengthens. Good-keeping grapes were in more favor.

The dried-fruit market has held to fairly steady prices for the more choice of each kind, but all below choice ruled in buyers' favor. Prunes, apricots and plums have held to firm prices, but peaches have been largely in buyers' favor. The eastern market is shaping into a better position for holders. All present information points to much better prices in the spring months than have obtained for several years. Foreign advices indicate better prices, which ought to favorably affect ours in the near future.

Raisins are steady, with a continued free outward movement. All present advices indicate that the markets at the East will hold up, if not advance, in the spring months of 1893. There is a continued strong bear pressure, owing to packers acting together, but this must eventually give way before lessened supplies, strong holding and a free consumption. Foreign raisins at the East are in light supply and higher, as are old-crop California raisins.

Markets by Telegraph.

Dried Fruit Steady.

NEW YORK, Nov. 6.—Apricots are steady at 11½@17c. Dried wine grapes are not wanted. Unpeeled peaches in bags still range at 12½@16c spot. Prunes are moving only for trade wants. Spot prices for single sizes are lower, because the first selections of late arrivals have been absorbed. Forties are quoted at 13c; fifties at 12½c; sixties at 12c; seventies, 11½c; eighties, 11c; nineties, 10½c.

There is a good demand for coast soft-shell almonds. Quotations are 15@16¼c per pound.

Choice Beans are Firm. Honey Is Scarce.

NEW YORK, Nov. 6.—Honey is scarce and wanted. Lima beans—Offers to shade rates for delivery of new by Pacific Mail have not really broken our market. Undergrades sag a little, but all good are firmly held at $2@2.05 per spot bushel.

Better Tone in Hops.

NEW YORK, Nov. 6.—Receipts are liberal, but closely taken up for export and a rather better brewers' demand. Last week's prices close full and firm, with selected Pacifics touching 24½c. A sale of California olds was made at 8c. With steadier London advices the market looks brighter. Exports for the two weeks are 40,542 bales.

Raisins Selling Wide Range.

NEW YORK, Nov. 6.—With a larger offering of boxes, prices have a wider range. Layers are quoted at $1.70@2; loose, $1.70@1.85. Bags are offered at 6c for three-crown and 4½@5c for common to good two-crown. A line of fancy bags from El Cajon brought 7@8c. Steamer receipts for the week for New England are 5031 boxes and 3996 bags; for New York, 11,197 boxes and 2868 bags.

Wool Shows Signs of Advancing.

NEW YORK, Nov. 6.—The disposal of a big volume of domestic wool is the feature of the week. Manufacturers are disposed to collect reserves while prices are where they are, and lines have been taken to an extent that forestalls the outside speculative feeling which more or less attends the situation of diminished stocks and certainly safe figures. In New England there is a growing speculative sentiment among sellers who have faith in an eventful upward turn to prices, but their policy is to let any present weighty surplus go into a course of assured consumption, and are consequently indifferent to the approaches of outside capital. California and kindred unwashed wools have sold promptly up to the extreme of late current rates. This is substantially an improvement, as during the active business of the season many top qualities have been carried off, to the promotion of next good grades. Sales at New York: 68,000 pounds of spring California, 230,000 pounds of fall Texas, 18,000 pounds of scoured California, and 512,000 pounds of other domestic, and 272,000 pounds of foreign on private terms. Sales at Boston: 3,902,000 pounds of domestic; also 616,100 foreign, of which 466,000 were Australian. Philadelphia reports a favorably active market.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	Nov.	Dec.	Jan.	Feb.	Mar	April
Thursday....	5s09½d	5s10½d	5s11½d	6s00 d	6s01 d	6s01⅞d
Friday.....	5s10 d	5s11½d	5s11½d	6s01 d	6s02 d	6s02½d
Saturday...	5s09⅞d	5s10⅞d	5s11⅞d	6s00⅞d	6s0 ⅞d	6s02⅞d
Monday.....	5s09 d	5s10½d	5s11½d	6s00½d	6s01½d	6s02⅞d
Tuesday.....	.....	.....	.....	.....	.....	.....

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market for P. S.
Thursday...	33s	32s9d	32s9d	Rather more inquiry.
Friday.....	33s	33s	33s	Steady
Saturday..	33s	33s	33s	Firm but not active.
Monday.....	32s9d	33s	32s9d	Quiet.
Tuesday.....	....	....	32s9d	

To-day's cablegram is as follows:

LIVERPOOL, Nov. 9.—Wheat—Firmly held and more disposition to buy. California spot lots, 6s 9d; off coast, 33; just shipped, 33s 3d; nearly due, 33s; cargoes off coast, steady; on passage, firm but not active; Mark Lane wheat, quiet; French country markets, quiet.

San Francisco.

WHEAT.

	Seller '92.	Buyer Dec.	Buyer Jan.	May
Thursday, highest	....	134	....	13 ¾
" lowest	....	133⅝	....	136⅞
Friday, highest	132	134½	....	136⅝
" lowest	132	133⅞	....	136⅝
Saturday, highest	....	....	133⅞	136⅝
" lowest	....	....	133⅞	136⅝
Monday, highest	....	133⅞	....	137
" lowest	....	133⅞	....	136⅞
Tuesday, highest	....	....	....	....
" lowest	....	....	....	....

BARLEY.

	Seller '92.	Dec.	Jan.	May
Thursday, highest	89¼	*92	90⅛	95
" lowest	89	92	90⅛	95
Friday, highest	....	*91⅛	*92	....
" lowest	....	91⅛	92	....
Saturday, highest	....	*92⅛	91⅞	95⅛
" lowest	....	92	91⅞	95⅛
Monday, highest	....	*92⅛	....	....
" lowest	....	92⅜	....	....
Tuesday, highest	....	....	....	....
" lowest	....	....	....	....

*Buyer option.

Eastern Markets.

The following shows the closing prices of wheat for the past week at

New York.

Day.	Nov.	Dec.	Jan.	March.	May.
Thursday	124½	126⅝	129½	134½	138½
Friday	....	127	129½	135	138⅝
Saturday	124½	126	129	134	138
Monday	125	127	129½	135	140
Tuesday	....	....	....	....	....

The following is to-day's telegram:

NEW YORK, Nov. 9.—Wheat—76⅞c for December, 77⅞c for January, 79c for February and 84c for May.

Chicago.

Day.	Nov.	Dec.	May
Thursday	117½	120	129⅝
Friday	117	119½	129
Saturday	117	120	130
Monday	120	120¼	130
Tuesday	....	....	....

The following is to-day's telegram:

CHICAGO, Nov. 9.—Wheat—73½c for December and 79c for May.

General Remarks and Statistics.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending Nov. 8, '92, were as follows:

Flour, qr. sks	168 889	Bran, sks	15,682
Wheat, ctls	227,268	Buckwheat "	548
Barley, "	79,3 6	Middlings "	2,478
Rye, "	732	Chicory, bbls	55
Oats, "	15,538	Hops, "	687
Corn, "	4,65	Wool, "	687
*Butter, "	192	Hay, ton	1,878
do bxs	596	Straw, "	174
do bbls	97	Wine, gals	237,230
do kegs	274	Brandy, "	9,800
do tubs	....	Raisins, bxs	15,140
do ½ bxs	12	Honey, cs	14
†Cheese, ctls	618	Peanuts, sks	502
do bxs	91	Walnuts "	1,253
Eggs, doz	10,952	Almonds "	890
do " Eastern	72,300	Mustard "	....
Beans, sks	26,94	Flax "	800
Potatoes, sks	30,241	Popcorn "	....
Onions, "	2,840	Broom corn, bbls	117

*Overl'd, 212 ctls. † Overland, 269 ctls.

Exports by Sea from San Francisco from July 1 to Nov. 1.

	1892-93	1891-92
Wheat, ctls	3,945,877	5,527,357
Flour, bbls	429,257	423,258
Barley, ctls	905,110	682,501

Tonnage Movement.

From reliable advices up to Nov. 8, the following summary tonnage movement is compiled:

	On the way 1892.	On the way 1891.	In port 1892.	In port 1891.
San Francisco	252,437	408,667	*167,817	124,289
San Diego	11,784	24,157	8,651	.....
San Pedro	11,193	8,990	....	45,718
Oregon	4 ,812	38,8 6	28,750	
Puget Sound	19,238	28,569	.....	
Totals	335,464	509,259	205,218	170,007

*Engaged for wheat, 1892, 51,781; 1891, 108,788.

Cereals.

The exports of wheat from Russia from January 1st to October 1st have been 16,395,000 bushels, against 72,706,000 bushels last year. Rye, 693,000 bushels, against 37,078,000 bushels. Barley, 17,306,000 bushels, against 22,444,000 bushels. Oats, 12,262,000 bushels, against 37,753,000 bushels, and on corn, 7,000,000 bushels, against 11,613,000 bushels.

In connection with the estimates of the English wheat crop the yearly statement of Sir John E Lawes, in regard to the experiments on his farm at Rothamsted, is interesting. These experiments have now extended over a period of 49 years, with crops grown yearly on the same plot under the same conditions from year to year. These experiments show conclusively the value of fertilizers. He believes that the entire result in the United Kingdom is less favorable than on his ground, but makes his estimate on his own averages as follows: Crop, 59 387 846 bushels; amount available less seed, 54,774,996 bushels. The average population of the United Kingdom is put at 38⅓ millions, and the consumption is six bushels per capita, or 230,000,000 bushels. After deducting the home supply, the requirements of foreign wheat will be 175,000,000 bushels. If a lower estimate of 2.2 bushels per acre is accepted for the United Kingdom, the requirements will be 184,000,000 bushels. After making allowances for the large stocks of wheat on hand at the first of this cereal year, it is believed that the requirements for the ensuing year will be in the neighborhood of 160,000,000 bushels.

The editor of the *Northwestern Miller* says that from his personal observation it is sure that the wheat crop of the rich-producing districts along the Volga in Russia was in a very bad condition this summer as late as July, and that there can be no other result than a repetition of the great scarcity which was seen a year ago. Although there is no indication yet of a repetition of the prohibition of exports, there is no denying the fact that another famine will follow in the wake of the last. This statement was based on no casual reports, but on a number of private letters from parties who last year were engaged in relieving distress. He quotes such statements as: "This is another bad year for Russia. People are suffering even more than last year. Then, at least, they had a little oats; now there is nothing to feed the cattle on." Again: "Fuel and fodder are both scarcer than last year." Again: "The condition of many villages in our neighborhood this year promises to be, if possible, even worse than last." Another correspondent says: "Even the oats have been burnt up this year, and, in a word, there is a state of most complete destitution." In the northern part of Samara the crops have again failed, owing to the repetition of drough . The *Miller* thinks that there is a likelihood of being a repetition of the prohibition of exports, providing there are large exports this year, but at present, owing to the severe loss of last year, merchants are indifferent and the peasants have nothing to sell, which accounts for the poor business.

To-day was largely consumed in discussing politics and therefore business suffered.

On Call, wheat futures were higher, but spot parcels were reported to us strong at unchanged quotations. While no higher quotations were reported to us, yet it was said that an advance was offered for a straight parcel of shipping.

Barley was in good demand, and for a straight parcel of feed a slight advance was obtainable, provided it was favorably situated.

Oats were offered sparingly, which was offset by an offish demand.

Corn, rye and buckwheat were essentially unchanged.

Feedstuff.

The market was heavy for bran, but firm for both ground and roll barley. Other ground feed was steady.

Hay was weak and easy at current quotations. Compressed hay sells at $10@10.50 for giltedged.

Wheat-hay, wire baling, sold to-day at $10.

Dairy Produce.

Dealers report giltedged butter slightly steadier to-day. The demand was reported fair. The lower quotations appear to be attracting outside orders. Cheese was steady.

Eggs moved off freely to-day. Choice, fresh-laid Californian sold at 47½ cents, and selected at 50 cts. Eastern fresh-laid in 25 and 50 box parcels sold at 26@26½ cts., and cold-storage at 21@22 cts.

The receipts of butter, cheese and eggs at San Francisco in October were as follows:

Source.	Butter, Lbs.	Cheese, Lbs.	Eggs, Dozen.
California	1,2 9,100	412,000	65,341
Oregon	78,100	34,300	780
Eastern	370,200	213,500	341,340
Totals	1,657,400	695,800	403,461
January	502,200	476,9 0	420,345
February	622,550	313,500	200,245
March	1,188,700	574,200	358,756
April	1,793 050	802,900	590,068
May	1,713,100	715,900	536,170
June	1,811,200	634,100	603,735
July	1,157,700	789,100	374,211
August	1,376,300	694,800	447,325
September	1,560,300	786,900	408,461
Ten months	13,562,500	6,448,100	4,449,116

During the first ten months of 1891 the receipts were 11,903,000 lbs butter and 5,861,300 lbs cheese, 4,314,042 dozen eggs.

Vegetables.

Garden truck was essentially unchanged. The supply and demand appeared to have been about equal.

Onions were strong. There was no difficulty in placing choice good-keepers.

River red potatoes were dull and hard to sell today. Sales were made at 40@50 cts. per sack on the wharf. Salinas Burbanks, if choice, sold readily. All other kinds were slow.

Sweet potatoes were dull and heavy to-day. Sales of river were made on the wharf at 50@75 cts., latter for the best.

Fruit.

Grapes were in fair offering at unchanged quotations. Apples were slow at steady prices. Peaches are out of the market. Quinces and pears sold lower. Wine-grapes were firmer for choice, good keepers.

The dried-fruit market was dull and weak for all kinds below good, but choice to gilt-edged were firm. Apples are moving with some degree of firmness.

At a meeting of the California State Raisin-Growers' Association, the following minimum prices were agreed upon: Clusters, 20 lbs., per box, $2; choice 3-crown London layers per box, $1.65; standard 3-crown London layers per box, $1.45; 3-crown London layers per box, $1.30; 3-crown choice loose, unfaced, per box, $1 30; 3-crown fancy loose, faced, per box, $1 35; 4-crown loose, sacked, per lb., 5c; 3-crown loose, sacked, per lb., 4½c; 2-crown loose, sacked, per lb., 3½c; standard 4-crown loose, boxed, per box $1.15; seedless Muscats, per lb., 4c; seedless Muscats, fancy, per lb., 5c; seedless Muscats, fancy, boxes, per box, $1.25; third-grade seedless Muscats, sacks, per lb., 3c. It is understood that this is to take immediate effect, and that we, under no consideration, deviate from the above prices. All prices to be f. o. b. from point of departure.

Live Stock.

The market for bullocks and calves appears to be firmer for the more choice. Mutton sheep and hogs have held to fairly firm prices. The consumption of fresh meat is said to be enlarging.

Miscellaneous.

The poultry market has been more or less demoralized throughout the week, with at times much difficulty met in selling. At the close the tone appears to be steadying, and unless more eastern comes in, the market ought to do better. Turkeys sold higher.

Beans were essentially unchanged the past week. It is said that considerable quantities were damaged by rain.

Hops have held to fairly firm prices, notwithstanding buyers trying to get prices lower.

Wool has moved off fairly free, considering it was election week. For a choice, desirable clip a slight advance was reported to have been made.

Mustard seed is under strong control. The market is firm. Alfalfa has a wide range, but choice sells at our quotations.

General Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

NOVEMBER 9, 1892.

BEANS AND PEAS.			
Bayo, ctl	2 30	@	2 40
Butter	2 75	@	3 00
Pea	2 65	@	2 75
Red	2 40	@	2 50
Pink	2 10	@	2 15
Small White	2 50	@	2 65
Large White	2 45	@	2 50
Lima	3 00	@	3 15
Fld Peas, blk eye	1 60	@	—
Do green	2 20	@	—
Do Niles	1 40	@	—
Split	4 50	@	5 50
BUTTER.			
Cal., poor to fair, lb	12½	@	—
Do g'd to choice	20	@	—
Do Giltedged	—	@	30
Do Creamery	26	@	—
Do do Giltedge	—	@	32½
Eastern, ladle	12½	@	—
Cal. Pickled	20	@	—
Cal. Keg	20	@	24
East'rn Cream'y	25	@	—
CHEESE.			
Cal. choice cream	9½	@	—
Do fair to good	8	@	—
Do Giltedged	—	@	12
Do Skim	5	@	6½
Young America	—	@	12
EGGS.			
Cal. "as is," doz	27½	@	—
Do shaky	20	@	—
Do candled	37½	@	—
Do choice	45	@	—
Do fresh laid	—	@	47½
Do do sl'ed wht'e	—	@	50
Eastern "as is"	21	@	—
Do candled	26	@	—
Do selected	27	@	—

Outs de prices for selected large eggs and inside prices for mixed sizes—small eggs are hard to sell.

FEED.			
Bran, ton	14 00	@	15 00
Feedmeal	26 0	@	27 00
Gr'd Barley	19 00	@	20 50
Middlings	21 00	@	23 00
Oil Cake Meal	—	@	35 00
Manbatan Horse Food (Red Ball Brand) in 100-lb. Cabinets	—	@	8 00
HAY.			
Compressed	—	@	10 50
Wheat, per ton	8 50	@	—
Do choice	—	@	14 00
Wheat and oats	8 00	@	12 50
Wild Oats	7 00	@	10 00
Cultivated do	6 00	@	9 00
Barley	6 50	@	9 50
Alfalfa	8 00	@	9 50
Clover	8 00	@	10 00
Straw, bale	30	@	50
GRAIN, ETC.			
Barley, feed, ctl	82½	@	—
Do good	86½	@	—
Do choice	90	@	—
Do brewing	92½	@	—
Do do choice	96½	@	—
Do do Giltedge	1 00	@	—
Do Chevalier	1 00	@	—
Do do Giltedge	1 15	@	—
Buckwheat	2 25	@	—
Corn, white	1 15	@	1 20
Yellow, large	1 05	@	1 07½
Do small	1 12½	@	1 15
Oats milling	1 37½	@	—
Feed, choice	1 35	@	—
Do good	1 30	@	—
Do fair	1 25	@	—
Do common	1 17½	@	—
Surprise	1 45	@	—
Black Cal	1 10	@	1 25
Do Oregon	—	@	—
Gray	1 30	@	—
Rye	1 12½	@	1 17½
*Wheat, milling Giltedged	1 35	@	—
Do choice	1 33¾	@	—
Do fair to good	1 32½	@	—
Shipping, choice	1 33¾	@	—
Do good	1 31¼	@	—
Do fair	1 28¾	@	—
Common	1 26¼	@	—
Sonora	1 25	@	1 30
HOPS.			
1892, fair	18	@	—
Good	20	@	—
Choice	21	@	—
FLOUR.			
Extra, city mills	3 90	@	—
Do country m'ls	3 90	@	—
Superfine	2 50	@	3 00
NUTS—JOBBING.			
Walnuts, Cal. lb	8	@	—
Do choice	10	@	—
Do paper-shell	11	@	—
Almonds, soft sh'l	12	@	—
Paper shell	13½	@	—
Hard shell	6	@	—
Brazil	8	@	—
Pecans, small	8	@	10
Do large	14	@	16
Peanuts	3½	@	4½
Filberts	10	@	—
Hickory	7	@	8
Chestnuts	18	@	20
ONIONS.			
Silverskin	50	@	75
POTATOES.			
River Reds	30	@	45
Early Rose, ctl	40	@	50
Peerless	60	@	70
Garnet Chilies	60	@	70
Burbank Sed's	40	@	60
Do do Salinas	90	@	1 25
Sweet	50	@	1 00

Extra choice sell for more money

POULTRY.			
Hens, doz	5 00	@	6 00
Roosters, old	5 0	@	5 50
Do young	4 50	@	5 50
Broilers, small	2 50	@	3 50
Do large	3 50	@	4 00
Fryers	4 00	@	4 50
Ducks	4 00	@	4 50
Do large	4 50	@	5 00
Do ex large	—	@	6 00
Geese, pair	1 50	@	1 75
Turkeys, gobl'r	15	@	18
Turkeys, hens	15	@	17

All kinds of poultry, if poor or small, sell at less than quoted; if large and in good condition, they sell for more than quoted.

Manbattan Egg Food (Red Ball Brand) in 100-lb. Cabinets	—	@	11 50
GAME			
Quail, per doz	75	@	1 25
Ducks	—	@	—
Do Mal'd ⅌ doz	4 00	@	5 50
Do Sprig	2 25	@	3 00
Do Teal	1 50	@	—
Do Widgeon	1 50	@	2 00
Do small	1 00	@	1 50
Geese	—	@	—
Do gray ⅌ doz	2 00	@	2 50
Do White	1 00	@	1 50
Do Brant	1 00	@	1 50
Snipe	—	@	—
Do English, doz	1 50	@	2 00
Do Jack, per doz	75	@	1 00
Hare, per doz	1 00	@	1 50
Rabbits, large	75	@	1 25
Do small	1 00	@	1 25
PROVISIONS.			
Cal. bacon, heavy, per lb	12	@	—
Medium	13	@	—
Light	14	@	—
Lard	8½	@	12
Cal sm'k'd beef	11	@	—
Hams, Cal salt'd	13	@	—
Do Eastern	14	@	—
SEEDS.			
Alfalfa	10	@	—
Clover, Red	14	@	—
White	28	@	—
Flaxseed	2 25	@	—
Hemp	4½	@	—
Mustard, yellow	5½	@	6½
Do brown	4	@	—
WOOL.			
FALL, 1892.			
S Joaquin, plain	6½	@	10
Do mountain	10	@	12
Do lamb	8	@	10
Northern Choice	14	@	—
Do Defective	11	@	—
Do Lamb	10	@	14
HONEY—1892 CROP.			
White comb, 2-lb frame	9	@	12½
Do do 1-lb frame	11½	@	14½
White extracted	7½	@	—
Amber do	6¾	@	—
Dark do	6¼	@	—
Beeswax, lb	23	@	—

Live Stock.

BEEF.			
Stall fed	6	@	—
Grass fed, extra	5¾	@	—
First quality	5½	@	—
Second quality	4½	@	—
Third quality	3	@	—
Bulls and thin Cows	2	@	—
VEAL.			
Range, heavy	5	@	—
Do light	6	@	—
Dairy	7	@	8½
MUTTON.			
Wethers	6½	@	—
Ewes	6	@	—
Do Spring	7½	@	—
HOGS.			
Light, ⅌ lb, cents	4¾	@	—
Medium	4¾	@	—
Heavy	4¼	@	—
Soft	4	@	—
Feeders	3¾	@	—
Stock Hogs	3½	@	—

Twine and Baling Rope.

BALE ROPE.	
Sisal, 3 yarns	9
Do, 2 yarns, light	9½
Duplex, 3 yarns	9
Manila, 3 yarns, heavy	10½
Pure Manilla, 3 & 4 yarns	12
Do, 2 yarns, light	12½
TWINE.	
Pure Manilla Hop, in balls, tarred	11½
Do, Grapevine, in balls or coils	12
Do, Spring	16
Duplex Hop in balls, tar'd	9½
Do, Grapevine, in balls or coils	10½

Continued on next page.)

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

NOVEMBER 9, 1892.

Limes, Mex	3 00 @ 3 50
Do Cal	— @ —
Lemons, box	6 00 @ 8 00
Do Sicily choice	7 00 @ 8 50
Strawberries, pr chest	5 00 @ 9 00
Apples	30 @ 60
Do Choice	75 @ 1 00
o Extra choice	1 00 @ 1 25
Canteloupes, pr crate	— @ —
Grapes, pr bx –	
Do White	35 @ 50
Do Black	30 @ 60
Do Muscats	25 @ 60
Do T Kays	35 @ 60
Do Royal Isabel	1 00 @ 1 25
Do Cornichon	50 @ 65
Wine Grapes, Zinf'nd'l, pr tn	— @17 00
Mission	10 00 @12 00
White	8 00 @10 00
Pears	25 @ 75
do Winter Nelis	75 @ 1 00
Quinces pr bx	75 @ 1 00

Extra choice fruit for special purposes sells at an advance on outside quotations

Beets, sk	— @ 50
Carrots, sk	30 @ 50
Okra, dry, lb	8 @ 10
Parsnips, ctl	1 00 @ 1 50
Peppers, drv. lb	7 @ 9
Do grn Chili, bx	40 @ 60
Do do Bells	40 @ 60
Turnips, ctl	— @ 50
Cabbage, 100 lbs	35 @ 50
Garlic, lb	2 @ 2½
Tomatoes	25 @ 60
String Beans, lb	3 @ 4
Lima Beans	4 @ 4½
Cucumbers, box	50 @ 75
Mushrooms	— @ —
Egg Plant, bx	25 @ 50
Marfat Squash, ⅌ ton	8 00 @10 00
Cauliflower	50 @ 65
Celery	50 @ 75

Dried Fruits.

The quotations given below are for average prices received by commission merchants for consignments by growers. Something very fancy fetches an advance on the highest quotations, while poor sells slightly below the lowest quotations. Prices, unless otherwise specified are for fruit in sacks; add for 50-lb. boxes ¼c per lb. and for 25-lb. boxes ¾ to 1c per lb.

APPLES 1892.	
Sun-dried, ¼'s, com'on	2½ @ 3½
Do do prime	3½@ 4
Do do choice	4 @ 4½
Do sliced, common	3½ 4
Do do prime	4 @ 4½
Do do choice	4½@ 5½
Evap. bl., rl g. 50-lb. bx	8 @ 9
Fancy, higher.	
APRICOTS—1892.	
Sun-dri d, unbl. com.	4½@ 5½
Do do prime	6½@ 8
Do do choice	9 @10
Do bleached, prime	12½@ –
Do do choice	15½@ –
Do do fancy	14½@16
Evap choice, in boxes	15 @16
Do fancy do	15½@17
FIGS—1892.	
Sun-dried, black	4 @–
Do white	3½@–
Do do washed	— @–
Do do fancy	— @–
Do do pressed	— @–
Smyrna boxes	— @–
Do sacks	— @–
GRAPES—1892.	
Sun-dried, stemless	3½@–
Do unstemmed	1½@ 2
NECTARINES—1892.	
Red, sun-dried	8 @ 9
Do Evap., 1 boxes	— @–
White, sun-dried	9½@11
Do evaporated	— @–
PEACHES—1892.	
Sun-dried, unpeeled	7 @ 7½
Do do prime, bl ched	10 @–
Do do choice, do	11 @–
Do do fancy	12 @ –
Sun-dr., pl'd, bl'ched	@–
Do do prime	14 @–
Do do choice	— @15
Do do fancy	— @16
Evap., pee'ed, in boxes choice	17½@ –
Do do fancy	20 @–
PEARS—1892.	
Sun-dried, quarters	— @ 3
Do sliced	4 @ 5
Evap., slic'd, in b'xes	7 @ 8
Do ring do	9 @10
Unp'led, q'rt'd, bl'ch'd	10 @11
PLUMS—1892.	
Pitted, sun-dr ed	10 @10½
Do evap. boxes, choice	– @ –
Do do do fancy	— @ –
Unpitted	4 @ 5
PRUNES 1892.	
Cal. French, ungraded	7½@ 8
Do graded, 60 to 100	8½@ 9
Do do 40 to 60	11 @12
Fancy sell for more money.	
RAISINS—1892.	
London Layers, cluster per box	1 90 @2 00
Do choicest do	1 60 @1 70
Do prime pr bx	1 40 @1 45
Loose Muscatels, common, pr bx	— @ —
Do choice do	1 25 @1 30
Do fancy do	— @ —
Unstem'ed Muscatels in sks pr lb.	4 @ 5½
Stemmed do do	— @ –
Seedless do do	— @ –
o do pr 20-lb. bx	— @ —
Sultanas, unbl, bxs	— @ —
Do bl'ched in bxs	@ —

Halves, quarters and eighths 25, 50 and 75 cents higher respectively than whole boxes.

Wine.

Red and White Wine from bay counties, vintage of 1891, per gal., in cellar lots	12 @20
1892 vintage in cellar lots	10 @15

Auction Sales of California Fruits.

At New York.

Nov. 3.—Three carloads: Tokay Grapes, double crates, $3.80@4 90; single crates, $1.90@2.25; Cornichon Grapes, double crates $4 05; single crates, $2 15; Winter Nelis Pears, $3 80; Pomegranates, $1.45.

Nov. 4.—One carload: Tokay Grapes, double crates, $4.10@4 60; single crates, $1 90@2.35; Cornichon Grapes, double crates, $4 20; single crates, $1.95@2.20.

Nov. 5.—One carload: Tokay grapes averaged $1 40 per single crate.

Nov. 7.—One carload: Tokay Grapes, half-crates, $1.40@1.55.

Nov. 7.—Two carloads: Tokay Grapes, double crates, $3.35@4.50; single crates, $1.50@2.55; Cornichon, double crates, $3 25@4; single crates, $1.55@1.80; Black Morocco, $1.60@2; Emperor, $1.50.

At Chicago.

Nov. 3.—Two carloads: Glout Morceau Pears, $2.60@2.75; Duchess Pears, $2.40; Winter Nelis Pears, $2.35; Vicar Pears, $1.75; Pound Pears, $1.75; single crates Muscat Grapes, $1.35; single crates Tokay Grapes, $1 25. Some Grapes arrived in a damaged condition and sold for less.

Nov. 4.—Two carloads: Tokay Grapes, double crates, $2.75@3 10; single crates, $1.65; Muscat Grapes, double crates, $1.65@2; single crates, 75c@$1.10; Emperor Grapes, single crates, $1@1.40; Pound Pears, $1.90.

Nov. 5.—One carload: Muscat Grapes ranged from 90c to $1.15 per single crate; average, $1.10.

Nov. 7.—One carload: Tokay Grapes, full crates, $2 90@3.30; half-crates, $1@1.40; full crates Emperor, $2.10@2 15; Glout Morceau Pears, $3.25.

Nov. 7.—One carload: Tokay Grapes, double crates, $3.50@3 55; single crates, $1.10@1.70; Cornichon, double crates, $2.35; Muscat, $1.80@1.85; single crates, 75c@$1.10.

At Boston.

Nov. 4.—One carload: Tokay Grapes, double crates, $1@6 50; average, $5.10; single crates, $1.50@3.25; average, $2.10; Emperor Grapes, single crates, averaged $2.

Nov. 7.—One carload: Double crates Tokay Grapes brought $4.10@5.20; single crates, $1.50@2.50; Cornichon, $2.45@3 15.

AN ingenious grocer, who had in vain devised all manner of methods for clearing his store from the nuisance of flies, has shown himself to be well up with the times by starting an electrical fly trap. This is driven by an electric motor, and consists of a band smeared with some sweet substance on which the flies alight, and on which they are carried along and swept into a wire trap. The new trap has been so successful that many grocers' shops in England are now supplied with it, and it is also installed in many shop windows, where it serves the double purpose of a unique fly-catcher and a novel advertisement.

THE plan of making trunks with round tops is now abandoned by the best trunk-makers. The fact that the "strength of anything is its weakest point" seems to have been forgetten when so much labor and expense was put into the cover only. Trunks are now made with flat tops, but strong all all over alike.

The Grangers' Bank.

The Bank Commissioners completed last week their customary examination of the Grangers' Bank, and reported its condition as follows:

RESOURCES.

Real estate	$ 119,357 52
Invested in stocks, bonds, warrants	15,595 50
Loans and discounts	1,922,185 44
Cash balance on hand	136,241 26
Due from banks and bankers	12,156 12
Furniture and fixtures	6 074 00
Expenses and taxes	26,871 10
Other assets	4,025 65
Total resources	$2,242 507 59

LIABILITIES.

Capital paid in coin	$ 854,980 00
Reserve fund	48,743 23
Due depositors	465,828 23
Due banks and bankers	819,437 44
Interest collected	52,617 82
Rents and exchange	485 07
Dividends unpaid	415 80
Total liabilities	$2,242,507 59

This report is very satisfactory. It shows that nearly two million dollars has been placed as loans chiefly upon farm crops in warehouses, and this must prove a great accommodation to producers. This policy has prevailed from the foundation of the bank, as is shown by the following extract from the by-laws adopted at the incorporation of the bank April 27, 1874:

This bank has been organized for the purpose of enabling the Patrons of California to secure to themselves such advantages in obtaining money for use in the agricultural portions of the State upon as favorable terms as it can be obtained in the city for commercial purposes, believing that the land and securities of the agriculturist are equal to, if not better than city property as a basis of credit, and at the same time giving people of every class an opportunity of safely and profitably investing their money.

This provision has been faithfully carried through as far as practicable. Seven-eighths of the stockholders of the bank are farmers, and out of eleven directors only one is of the city. The bank has accommodated thousands of farmers throughout the State since its organization, and it has had a beneficial influence and acted as a check to high rate of interest that farmers might otherwise have had to pay. The bank has also shown that its policy is a good one, for it has been very prosperous, never speculating in any way, but doing a strictly legitimate and conservative business.

Albert Montpellier, the cashier and treasurer, has been connected with the bank from the first day it opened its doors for business, over 18 years ago, and undoubtedly much of the high standing and confidence the bank enjoys both in the city and country is largely due to his financial ability and honorable dealing. He has enjoyed continually the support and confidence of the Board of Directors. The high standing the bank now occupies should be a matter of congratulation to all interested.

WHERE THE GOLD HAD FLOWN.—"Gold," says a mintmaster, "melts at 2016 Fahrenheit; but it evaporates and passes off at a much lower temperature than melting heat, and also if it be maintained in a molten state for any considerable time before it is passed into an ingot." Ignorance of this metallurgical law once caused consternation to temporarily reign in the hearts of the staff of an American coinage factory. Soon after the San Francisco Mint commenced operations, an inspector visited it to take stock, and discovered a shortage of about $160,000. The employes expressed amazement, which quickly developed into dire alarm when arrests for theft were threatened. But before it was deemed necessary to adopt such stern measures some one suggested that evaporation had caused the deficiency, and that the missing metal had gone up the chimney. Acting upon this hint, a daring individual ascended the flue, and, to his own and his comrade's great relief, he found the lost gold on the roof, where it had condensed as it came in contact with the air. The slates were taken off the mint building, and the tiles of a church and other contiguous edifices were also removed. This argillitic collection was ground to a powder, and the gold was recovered. The brickwork of the furnaces and chimneys of the mint was similarly treated; and after the San Francisco authorities had regained as much gold as they could with the appliances which they possessed, the dust was sent to the Philadelphia Mint and worked over more closely. Finally the triturated material was sold to French chemists, who intended, it was understood, to subject it to a still more careful manipulation. In this way more than one-half of the original deficit was eventually covered.

LAST MONTH

THE JUDSON FRUIT COMPANY

Solicited consignments from the Fruit and Produce growers of California. The Consignments Came, and we believe that shippers are satisfied. It is our aim to handle all goods placed in our hands in such a manner as to secure the confidence of consignors.

Packing for long distance shipping a specialty.

Good Storage. Good Local Trade.

ADDRESS THE JUDSON FRUIT COMPANY,

308 & 310 Washington St., San Francisco, Cal.

Our Agents

J. C. HOAG—San Francisco.
R. G BAILEY—San Francisco.
F. D. HOLMAN—California.
GEO. WILSON—Sacramento, Cal.
SAMUEL B. CLIFF—Creston, Cal.
A. C. GODFREY—Oregon.
W. H. MURRAY—California.
E H. SCHAEFFLE—El Dorado and Amador Co's.
C. E. ROBERTSON—Humboldt Co.
CHAS. E. TOWNSEND—Placer and Yuba Co's.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription, paid in advance, 5 mos, $1 10 mos., $2; 15 mos., $3. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to othe s

Take Care of the

NICKLES

and the

DOLLARS

Will Take Care of Themselves.

If you only save one or two Nickles on each Fifty-cent purchase

You will be many Dollars ahead at the end of the year.

Send for our catalogue of

RUBBER GOODS.

Pacific Coast Home Supply Association

Mention this paper. 132 MARKET ST., S. F.

FOR $19.00

We can send you one of our

SPECIALTY SINGLE BUGGY HARNESS,

Which is the result of years of figuring to make the best harness ever known for the money. It is made from oak stock, hand stitched and finished by skillful mechanics, handsome full nickel or Davis hard rubber trimmings.

Just the Harness for an Elegant Turnout.

They sell here for $25.00, and harness not as good is often sold for $35.00 in retail shops. If harness is not as represented, money will be refunded.

Liebold Harness Co.

110 McAllister St., San Francisco.

Collar and Hames, instead of Breast Collar, $2 00 extra.

Please state if you want single strap Harness, or folded style Harness, with traces double throughout.

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Analytical Chemists and Assayers.

ESTABLISHED 1887 — 109½ COMMERCIAL ST., LOS Angeles, Cal. We have fitted up the best laboratory in Southern California and are prepared to make Assays and Analyses of all Metals, Minerals, Ores, Waters, Fertilizers, Etc. ASSAYING TAUGHT

APIARIAN SUPPLIES. Golden Italian Queens. Tested, $2.00 each; untested, $1.00 each. L Hives, $1.90 each. Root's V groove sections, $5.00 per 1000. Dadant's comb foundation, 58c and 55c a pound. Smokers, $1.00 each. Globe veils, $1.00 each, etc. WM. STYAN & SON, San Mateo, Cal.

The ÆOLIAN!

The Greatest of all Musical Instruments.

THE IDEA

In inventing the Æolian was to make an instrument that would do away with the years of practice mad necessary by the piano and organ and at the same time have music

IN NO WAY MECHANICAL,

But capable of the most delicate shading in expression and time, entirely at the will of the performer.

The CELESTINA!

A marvellous little instrument equal to an Organ for family use. Plays all classes of music; no skill required. Price $25.

Send for catalogues and terms to

KOHLER & CHASE,

26 28-30 O'Farrell St, San Francisco.

BARGAINS!! BARGAINS!!

$5,500—Choice Fruit Tract near Haywards; 10 acres bearing trees. This is a good purchase.

$7,000—40 acres in Ingomar, Merced County highly improved, good house and barn, 10 acres of which are Muscat raisin grapes in full bearing, 5 acres in orchard, 10 acres in alfalfa; plenty of water.

$10,000—Twenty-five (25) acres Belmont, San Mateo Co., 12 acres in fruit.

$200 Lots (50x300), Town of Belmont. $50 down, balance on time.

$2,500—Lots (4) in City of Fresno; exceptionally well located and cheap; will exchange.

$12,000—A very desirable Residence and Lot (140x150), 19th Ave. and E. 17th St., Oakland; fine view; easy of access; will subdivide.

$3,000—Fine 20-acre Tract four miles from Fresno (Woltors Colony) partly improved.

These are fine properties and are to be sold. Write particulars at once.

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MARTINEZ NURSERIES

Importers and Growers.

A FULL LINE OF

Standard Fruits, Shade Trees, Shrubs and Ornamentals.

ALMONDS, APRICOTS, CHERRIES, PEARS, PRUNES, PEACHES,

No Irrigation. Free from Pests.

Write for prices and catalogue to

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E. P. HEALD, President.

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Hatch Chickens by Steam.

IMPROVED EXCELSIOR INCUBATOR

Will do it. Thousands in successful operation. Simple, Perfect and Self-Regulating. Lowest-priced first-class Hatcher made. Guaranteed to hatch a larger percentage of fertile eggs at less cost than any other. Send 6c. for Illus. Catalog. GEO. H. STAHL, Quincy, Ill.

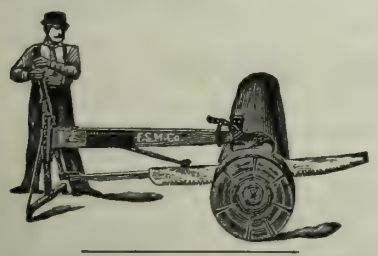
THE NEW CHIVALRY.—Be a knight, be a lady, of the New Chivalry! The essence of chivalry is to look out for the little ones. We often talk of it as if it were a reverence due peculiarly to women; and some fear that, should women enjoy political equality with men, chivalry would disappear. It would rather grow than disappear, even if that were all it meant,—reverence of man for woman; for it is a deepening reverence, deeper far than the mediæval sentiment, that underlies and prompts our modern movement in behalf of woman's rights; and that which begins in a deepening feeling is not likely to endanger the expression of the feeling. But chivalry means far more than reverence of man for woman. It means reverence of strength for weakness wheresoever found. Men often need more of it *from* a woman than they can possibly give *to* her. Chivalry is that in me to which every one whom I have power to injure can appeal in virtue of that fact with the unspoken plea, "You must use your power to bless!" Wherever a child can be helped, wherever a stranger can be guided, or a friend who is shy be set at ease, wherever a weak brother can be saved from falling and its shame, wherever an old man's step can be made easy, wherever a servant position can be dignified in his eyes,—is the chance for chivalry to show itself.—Rev. Wm. C. Gannett.

A Chance to Make Money.

Dwellers in the country are daily reminded of the disadvantages they labor under in the matter of purchasing supplies as compared with those who live in large distributing centers like San Francisco. To do away, in a large measure, with these disadvantages, and as a fair business proposition to all concerned, a few active and experienced business men, about three years ago, organized what has become known far and wide throughout the States of California, Oregon and Washington as the "Pacific Coast Home Supply Association." As the name implies, this association acts as a purchasing agent for all who see fit to avail themselves of its services. The immense trade that it is now handling, its rapid growth in popular favor, and its daily increasing territory, would indicate that it has gained the confidence of large numbers of people. This could only have been accomplished to such an extent, and in so short a time, through absolutely fair and conservative business methods. The convenience, satisfaction and actual saving of dollars and cents realized by those who patronize this concern is amply manifested by the many letters received from all parts of the country. The same care and attention that is given to large orders is also given to small ones, and owing to the large nature of the aggregate transactions of the association, and also to the strictly cash basis upon which its business is conducted, the buyer reaps not only the benefit and convenience of being able to place an order for a large variety of goods in one place, but also the advantage of lower prices than he could obtain were he to go to the expense of travel and loss of time incident to a visit to the city. It goes without saying that the life and success of the association depends upon its own fair dealing with its members. A letter addressed to the Pacific Coast Home Supply Association, No. 132 Market St., San Francisco, will bring catalogues and any particulars desired.

A Labor-Saving Machine.

The cut below represents a Folding Sawing Machine. The advertisers claim for this device that with it one man can saw as much wood as two men could, in same length of time, with the old-style crosscut saw. They have numerous testimonials to back up this claim, and invite thorough investigation. See advertisement of Folding Sawing Machine Co. in another column.



LARROGUE holds that he has demonstrated, by a series of experiments, that water liberated by evaporating from chemical combinations is electric; that water evaporated from the ocean is equally electric; and that the vapors from this source are, ordinarily, positively electric. This theory he applies very plausibly to account for electric displays in thunder storms.

THE devil, like the quack doctor, charges nothing for advice, but makes you pay dearly if you follow it.

COLORADO FRUITS.

An English Fruitgrower's Opinion of the Recent Fruit Show.

OCTOBER 10, 1892

To the Rocky Mountain News

Notwithstanding the high encomiums passed by many of the people of Denver on the exhibition of fruit which has just been held in the Equitable building, it is possible that but few of them fully realize what the fruit so exhibited means for Colorado. Having been a fruitgrower in England, and the secretary of several horticultural shows in that country, and having also traveled considerably in America and thereby become personally acquainted with American fruit, the writer ventures to publish his opinion as to the future of horticulture in Colorado as indicated by the show just closed.

Considering that the first fruit-trees (apples) were planted in Colorado so recently as 1863, as I am informed, the stock having to be hauled over 700 miles across the plains from Iowa, because there was no railroad then in existence, it is at first difficult to realize that Colorado has 30,000 acres planted in fruit, 25 per cent of which area was planted in the spring of the present year. The cause of this wonderful development must be from the fact that the combination of soil and climate in Colorado has been practically demonstrated to be preeminently adapted for fruit culture. Moreover, there seems no immediate probability of the local supply overtaking the local demand. While the local supply has already considerably diminished the imports of fresh fruit from California and other States, large quantities are still imported, in addition to which I understand there is a large local consumption of canned and evaporated or dried fruits, which will eventually come from Colorado orchards and factories. The local market therefore seems likely for a long time to keep far ahead of the supply.

Colorado horticulture also demonstrates the advantages of cultivation by artificial irrigation as against natural rainfall.

As to the exhibit itself, while the counties of Arapahoe Jefferson, Boulder, Larimer, El Paso, Fremont and others lying to the east of the Rocky mountains, made a significant display of fruit, the honors of the exhibition for the tender varieties, such as grapes, peaches, etc., certainly belonged to the counties of Mesa, Delta and Montrose. At no point in the United States, and certainly not in England, could the exhibits from those counties be duplicated for their combination of variety, size, color and flavor of fruits grown in the open air. For instance, the apples and peaches surpassed in quality those of California, while the grapes, pears and plums were fully equal to the products of the Pacific coast.

On the other hand, the apples, pears and peaches surpassed those of New York and other States east of the Missouri, while foreign varieties of grapes, such as the Black Hamburg, Tokay, Muscat, Cornichon, Siltana and many others cannot be grown in the open air in those States as they are in western Colorado. It will readily be seen, therefore, that Colorado occupies a somewhat unique and very superior position as a horticultural State and the future development in this line is certain to be great. I am not surprised to learn that the matter has begun to attract the attention of eastern capitalists and that one New York gentleman has planted 80 acres of pears in Mesa county, mostly Bartletts while in the same vicinity are two 80-acre peach orchards.

It would require too much space to at all particularize the 2000 plates of fruit exhibited, comprising as they did about 70 varieties of apples, 25 of pears, 20 of plums, 20 of foreign grapes, 40 of American grapes, 20 of peaches, 15 of apricots and three of nectarines, but one matter may be mentioned, viz, that the varieties well known in the eastern States, such as, in apples, Ben Davis, Maiden Blush, Jonathan, Wolfe River, Missouri Pippin, Fameuse and others, attain a much larger size in Colorado and are finer in color, in fact, have a higher market value. The same remark applies to other fruits.

The Colorado State Bureau of Horticulture has had a number of specimens of Colorado fruit reproduced in wax, exact counterparts as to size, shape and color, for exhibition at the World's Fair in Chicago next year. I saw the original fruits and the wax copies and know them to be correct, but feel convinced the wax models will be regarded as gross exaggerations by many of the eastern and foreign visitors to Chicago.

I am not directly or indirectly interested in any fruitgrowing district in Colorado, so feel at liberty to make the following general remarks: There must be very many enterprising young men in the eastern States, with some experience in horticulture, who possess a little capital, and who are ambitious to make more headway for themselves than seems to lie before them where they are. Such young men, if they knew of it, would do well to write to Dr. Alexander Shaw, Secretary of the State Bureau of Horticulture, Denver, for a copy of volume VI of the annual reports of the bureau, which contains much practical, reliable and official information as to horticulture in Colorado. They could then come to Colorado, personally visit each fruit-growing district, consult practical fruitgrowers, work at least one season for a fruitgrower before purchasing land, and then use their own best judgment. This is the suggestion I shall make to young Englishmen of my acquaintance. I am certain that the right sort of young men, following such a course, would finally have reason to bless the day they came to Colorado.

AN ENGLISH FRUITGROWER.

—Denver *Rocky Mountain News.*

WANTED.

A FOREMAN who is competent to manage a large fruit and raisin ranch. Address, giving reference,

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HIGH BRED TROTTING HORSES

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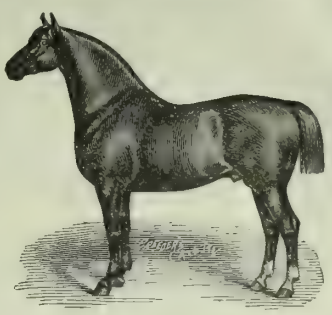
THOROUGHBRED HOLSTEIN-FRESIAN CATTLE.



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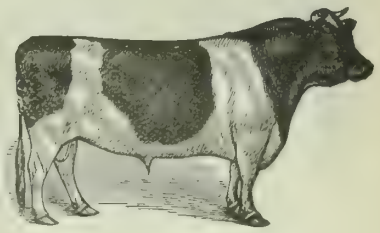
The Entire Breeding Establishment of



J. H. WHITE, Esq.,

Lakeville Stock Farm, Lakeville, Sonoma Co., Cal.

AT PUBLIC AUCTION,

Wednesday, December 30th, 1892,

AT 11 O'CLOCK, A. M., SHARP

AT SALESYARD, CORNER VAN NESS AVENUE AND MARKET STS., SAN FRANCISCO.

Catalogues will be sent on application to

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The following San Francisco Firms ana Individuals Received the Highest Awards of the State Agricultural Society at the late State Fair.

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For BEST WINDMILL—Four in competition.

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BEST DISPLAY OF AGRICULTURAL MACHINERY, CALIFORNIA MANUFACTURE, GOODS MANUFACTURED BY BENICIA AGRICULTURAL WORKS.

BUFFALO-PITTS THRESHING MACHINE.
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BEST PLOW FOR ALL PURPOSES, THE "BENICIA."
BENICIA SPRING WAGON.

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CANNON'S SHEEP DIP—Three in competition.

PARAFFINE PAINT CO.

BEST PREPARED PAINT (P. & B.).
SAMPLES OF PAINT, CAL. MANUFACTURE (P. & B.).

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SHEEP DIP.

BEWARE OF CHEAP IMITATIONS.

One gallon, mixed with 60 gallons of cold water, will dip thoroughly 180 sheep, at a cost of one cent each. Easily applied; a nourisher of wool; a certain cure for SCAB. Little's dip is put up in red, iron drums containing 5 English or 6¼ American gallons, and is sold to the trade by the English gallon. For the convenience of our many customers it is also put up in one-gallon packages, for which we make no extra charge. Each drum and package bears the label of "Little's Dip."

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Successors to FALKNER, BELL & Co., Sole Agents.

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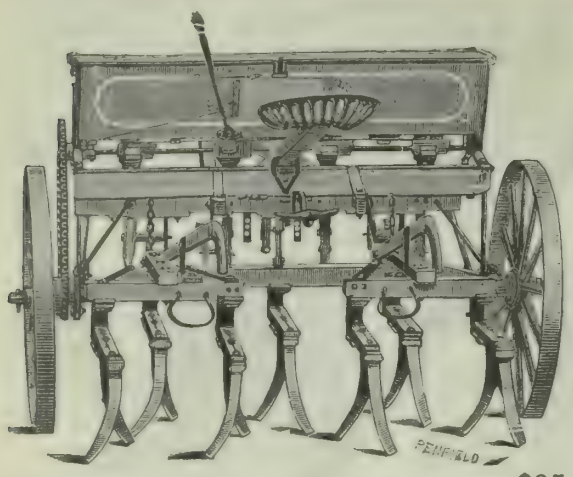

No. 3 "Bull Dog" Harrow, with Seeder attached, $35

(Cut does not show recent improvements; has 9 sets of teeth, as shown in cut below.)

Jackson's Windmills.

NOTE THESE PRICES:

10-foot	Wheel,	weight,	650 lbs.	$35 00
12-foot	"	"	700 "	45 00
14-foot	"	"	930 "	55 00

Superior Windmill Pumps at Equally Low Prices.

I MAKE A SPECIALTY OF

IRRIGATING MACHINERY.

WRITE FOR CATALOGUE.

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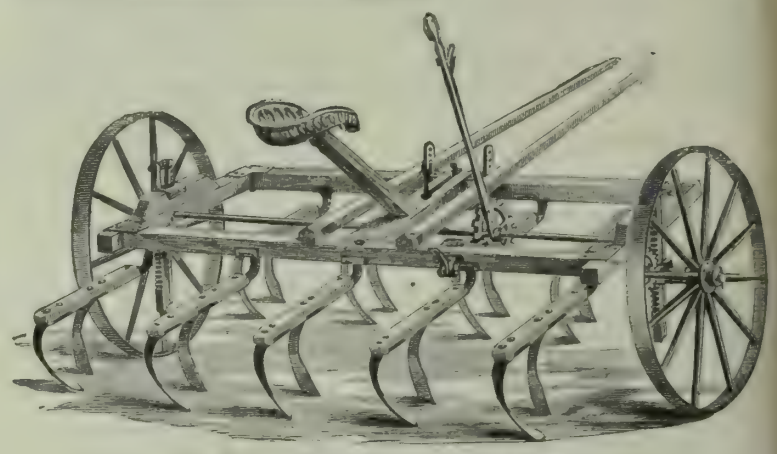


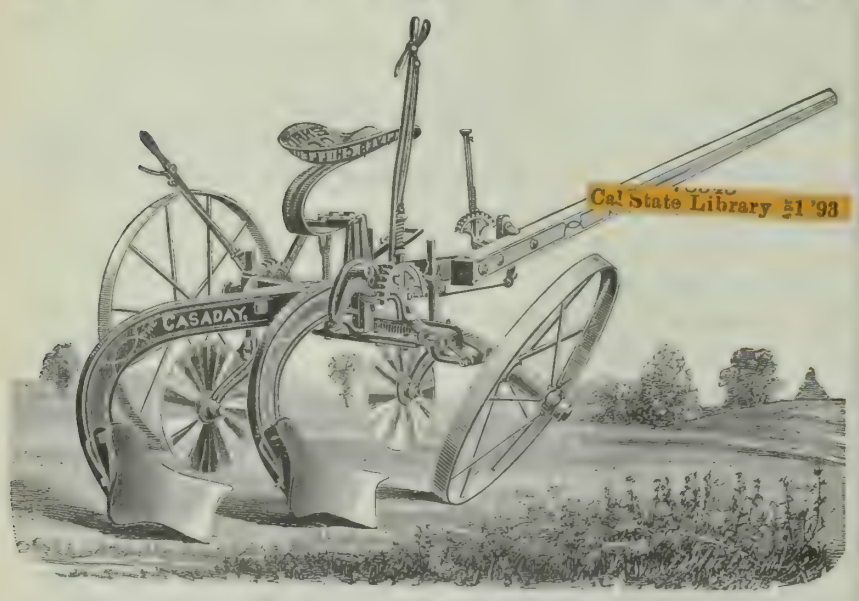
No. 3 "Bull Dog" 6-foot Riding Harrow.

"BULL DOG" RIDING HARROW, $25.00.

This tool is best adapted for hard, rough, stony, rooty, or boggy ground; is also excellent for c vating summer fallow or fall plowing, when the ground is to be prepared for the seed.

It cuts 6 feet in width, has 18 teeth and is recommended for the most obstinate soils, as, being economical machine, which will do the work where no other harrow can be used.

KING OF GANG PLOWS.



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EQUALED BY NONE.

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Shawls Over 200 samples from 2 of the largest mills in Europe, mostly knit or fancy woven, for stylish Evening Wear, $1.50 to $8.00. You save over half by buying these—**READ.**

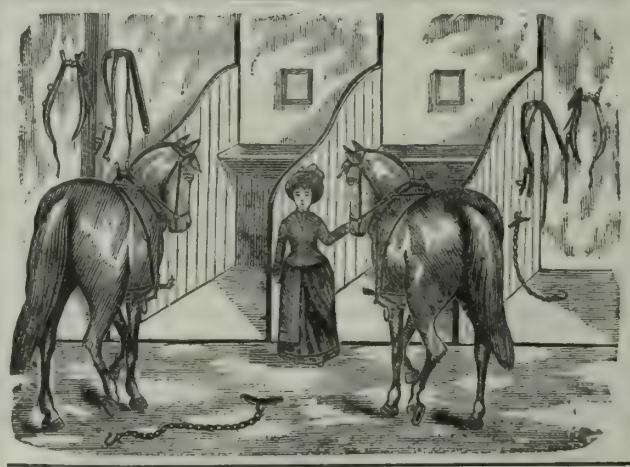
Coats Ladies' ¾ Coats, say 32-in. long; Sizes, 32 to 44; Black Navy, Light Tan—all pretty, serviceable and cheap, $3.75, $4.75, $6.50, $7.50, $10.00. Girl's Coats, long, $3.50 to $5.00.

Newmarkets Closing over 60; sizes, 34 to 42; dark and medium colors; long coats; last year's style; worth $9 to $14; now closing, $4.50 to $7.00. Be quick with orders.

On any of the above goods send full description with price, and we will forward subject to approval, to be returned if not O. K., at our expense, and money refunded.—Send for full list.

SMITHS' CASH STORE

414, 416, 418 Front Street, S. F., Cal.



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Steel Harness!

No Doubletrees, No Traces.

No injury to trees or vines. With the New Deerfield, each horse is harnessed separately in usual way. Fits any team.

PRICE PER SET, $17.50

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School of Practical, Civil, Mechanical, Electrical and Mining Engineering,

Surveying, Architecture, Drawing and Assaying,

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A. VAN DER NAILLEN, President.

Assaying of Ores, $25; Bullion and Chlorination Assay, $25; Blowpipe Assay, $10. Full course of assaying, $50

ESTABLISHED 1864. Send for circular.

CALIFORNIA FRUITS AND HOW TO GROW THEM By Prof. Edward J. Wickson.

A practical, explicit and comprehensive book embodyin the experience and methods of hundreds of successfu growers, and constituting a trustworthy guide by which the inexperienced may successfully produce the fruits for which California is famous. 600 pages. Fully illustrated. Price $3, postpaid. Send for circular. DEWEY PUBLISHING CO, publishers 220 Market Street, San Francisco, Cal.

PACIFIC RURAL PRESS

Vol. XLIV. No. 21. SAN FRANCISCO, SATURDAY, NOVEMBER 19, 1892. THE DEWEY PUBLISHING CO Office, 220 Market St.

Fighting Frost with Fire.

Californians have succeeded, to a certain extent, in fighting frost with smoke. The vineyards in the small coast valleys have often been saved from killing frost by filling the valleys from hill to hill with a dense smudge from burning piles of rubbish anointed with coal tar. Even on the broad San Joaquin, apricot orchards have been sometimes rescued by the same means. But smoke is a dull weapon for California warfare, and this winter something keener will be tried. We have already alluded in general terms to the proposed method. One feature was to locate small furnaces, hewn from discarded coaloil cans, at short intervals through the orange orchard, and, by having them previously loaded with combustibles, a hundred or a thousand fires could be speedily kindled and fire belching from so many throats would speedily warm the old face of the midwinter sky.

This rude proposition seems to have suggested a more perfect arrangement to H. B. Everest of Riverside, who is said to own the largest-bearing orchard of the Navel variety in the world, and whose losses by frost about Christmas time last year are reported to have been about $20,000. Mr. Everest, who was formerly engaged in manufacturing petroleum oils, has been experimenting for several months with other materials for burning in place of tar and brush and has perfected an apparatus which, it is claimed, will prevent the frosting of fruit even when the temperature falls as low as 18 or 20 and remains there for several hours. This heating apparatus has been placed throughout Mr. Everest's 80-acre grove at a cost of over $2000, and is being adopted by several other growers. It will not be patented and is a simple device that any horticulturist may prepare. Briefly described, the contrivance consists of a 100 gallon iron cask on each acre, filled with oil, from which two pipes run along between the rows of trees, with half a dozen elbows to the acre, 20 feet apart, over which are flat sheet-iron pans, into which oil spatters and burns as it vaporizes. Burning at the rate of one gallon per burner every hour, an intensely hot flame is made, which rises several feet and creates also a dense smoke which acts as a smudge. The cost of the plant is about $25 per acre, and the oil should not cost over $7 an acre in the coldest winter.

This is a proposition quite worthy of California dash and enterprise. Fortunately, we have vast stores of petroleum and can cheaply warm all that is out of doors with it. Mr. Everest's experiment will be watched with the keenest interest, and, if found practicable, will be of wide applicability.

AERIAL TUBERS.—In a recent talk before the California Botanical Club, Mrs. T. S. Brandegee is said to have given an interesting talk upon a new kind of potato lately originated at Santa Rosa. The specimens shown were small and greenish, but veritable tubers. They grew from a potato-plant grafted upon a tomato stalk. The tubers did not grow near the root nor under ground, as in the ordinary fashion, but high upon the plant, generally in the axils of the leaves. On some of the little potatoes tiny leaflets were starting out in place of eyes. The statement attributed to Mrs. Brandegee may be correct and yet aerial tubers are not uncommon and do not require any tomato grafting on the potato-plant.

WORLD'S FAIR SHOWS.—There seems to be full interest manifested both in the preliminary World's Fair display, to be held in the Mechanics' Pavilion in this city in January, and in the California World's Fair building in Chicago. In both undertakings, the available space seems to be well covered by the applications, though all who have something good should still apply, for probably room will be found for all. The success of both undertakings seems, however, well assured, and that is gratifying. For the California building, it is said, the applications cover four times the available space in the building, and some scaling down will be necessary.

An Old Mission.

The choice of the Mission style of architecture for the buildings of the Stanford University, and more recently for the California World's Fair building at Chicago, has served as a sort of revival of this style of construction. It does not strike us as a revival likely to go far, for there is certainly little in the style to commend it, aside from its historical associations. These may be to a degree in sympathy with the quiet and dignity of a seat of learning and therefore the style may be well placed at Menlo Park. The choice in Chicago was surely made wholly because of the uniqueness of such construction amid American surroundings, and because California could claim the most of the nation's possessions in this line. But there are some who claim that this point of view does not satisfy and that California could have chosen better models than those of the *padres*. Probably, however, the general verdict will be that California contributed more to the architectural features of the World's Fair by her peculiar building than she could have done by the choice of any other style.

THE OLD MISSION SAN ANTONIO DEL PADUA, AT SAN DIEGO.

We apprehend that the revival of the Mission style will not go farther than it has at present. It is decidedly out of harmony with modern spirit and activity. It has not been pursued even in religious structures by those who can be supposed to have most reverence for it. It belongs to a unique period of our history, and there it will probably rest for all time. Still, there is undoubtedly more interest in the Mission style and more discussion of its features now than there has been since American occupation. In view of this fact, it will be timely to present herewith a sketch by a well known local artist of the first Mission built in California, San Antonio del Padua, founded by Junipero Serra in San Diego in 1769. The view shows that a portion of it has a modern roof, while other parts still have the tiles. On the posts of the gateway are wooden figures which certainly have a grotesqueness not in harmony with their environment. They are said to have been taken from the wreck of a ship of which they were figure-heads, and it is surmised that they were set up to work a spell upon the savage mind.

THE Transcontinental Association is trying to hold a meeting in Chicago.

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ALFRED HOLMAN.....General Manager

San Francisco, November 19, 1892.

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BUSINESS ANNOUNCEMENTS.

[NEW THIS ISSUE.]

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Agricultural Implements—Deere Implement Co.
Agricultural Implements—Baker & Hamilton.
Agricultural Implements—Allison, Neff & Co.
Windmills—The Crane Company.
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Pacific Hospital—Dr. Asa Clark, Stockton.
Money to Loan—Holcom & Howe.

☞ *See Advertising Columns.*

The Week.

Delightful autumn days continue in unbroken series. The north winds have been replaced by those of a more westerly origin and cooler nights have resulted. The midday sunshine has also a harder contest with low temperatures, but still heavy clothing is a burden. The weather favors field work but the absence of rain prevents any considerable ground breaking or progressive undertaking. The days are excellently adapted for putting things to rights, for fence building and repairing, for renewal of roofs and for painting and whitening of everything. Surely, if the farm does not get a thorough brushing up and refreshing during these favoring leisure days it will not be the fault of the weather.

The days also invite all to the highways. Let the visits which have been deferred during the long busy summer now be paid. Let the home workers have the reinvigoration which comes from long rides in clear, bright air and the renewal of valued friendships and acquaintance. The longer the rains delay the greater will be the rush of work when they do come. Prepare then for this, not by aimless idling, but by recreation which strengthens and fits for extra labor.

This week the fruitgrowers are assembled in convention in San Jose. Early tidings speak of large assemblages and active interest in the proceedings. Not only this State, but our neighboring States are largely represented. The occasion will be one of great importance and value, and for those who could not attend, our columns during coming weeks will reflect transactions of greatest interest and moment.

And again comes Thanksgiving! By proclamation of the President, Thursday, Nov. 24th, will be the day. To all families through whose gates the Rural comes we extend our best wishes for a day full of joy and sincere thanksgiving.

Beautifying London.—The city of London is growing civilized. Time was, and within the memory of London citizens of middle age, when trees were very rare about the streets of the city or its suburbs. Now, as appears from answers to systematic inquiries, there are but three out of the seventeen districts where the search was prosecuted, that are absolutely without trees. In the remaining fourteen, 14,700 trees are found on the public highways, of which 5158 were planted by order of the various branches of the city government and 5823 by builders and other citizens.

Agricultural Produce and the Tariff.

There is naturally much anxiety among Californians interested in the new lines of production which are being pursued in this State, as to how their industries will be affected by the industrial revolution which is expected to begin as soon as a Congress assembles under Mr. Cleveland's administration. It is a foregone conclusion that tariff changes, more or less radical, will be made. It seems the clear desire of the people that shall be the case. The ax must fall and naturally there is concern as to whose industrial neck shall be on the block.

It is not very comforting to one who has labored to build up a producing interest under the protection of a tariff to contemplate the throwing down of the barriers against foreign cheap labor and ignoble living. There is not much consolation in the view that compensation for the hardship or ruin will come in some way and in some form. The theory of free trade and unrestricted competition with all kinds of people, willing to exist in all kinds of ways, may be very beautiful as a theory; but it is hard for those whose money and livelihood is vested in what must now be considered menaced interests, to be patient with any merely theoretical view of the case.

It is of course possible, and we hope even probable, that the hardship and losses which now seem imminent may prove less than anticipated. It may be that we can do something with a newer, richer soil and a more energetic and inventive people to carry our products against the work of older, drowsier nations. Unquestionably, every possible effort will be made in that direction, but how much will it avail? None can foresee, and there is therefore the anxiety and concern of which we speak.

It is possible, also, that the changes which, upon sober reflection and after congressional discussion, will be made, will not trench so closely upon the peculiar and new industries of California as now seems probable. This, too, cannot be foreseen, and this only substitutes another form of uncertainty for the confidence under which our leading industries have recently advanced.

In view of the new discussion which will spring up as to the effects of a wide-reaching tariff revision, it seems desirable to restate the existing duties upon the leading articles of agricultural produce. The following statement from a contemporary, we suppose, is substantially correct:

The duty on wheat is 25 cents per bushel, on barley 30, oats 15, corn 15, buckwheat 15, rye 10, beans 40, onions 40, green peas 40, potatoes 25, castor beans 50, hops 15 per pound. Tobacco for cigar wrappers, if not stemmed, $2 per pound, and if stemmed $2.75. All other tobacco in leaf 35 cents.

All garden and agricultural seeds not otherwise provided for, 20 per cent ad valorem. Vegetables of all kinds preserved or pickled, 45 per cent ad valorem. Vegetables in their natural state not otherwise provided for in the Act, 20 per cent ad valorem. Cabbages, 3 cents each. Hay, $4 per ton; straw, 36 per cent ad valorem. Honey, 20 cents per gallon.

Butter and all substitutes therefor, 6 cents per pound; cheese, 6 cents per pound; fresh milk, 5 cents per gallon, and milk preserved 3 cents per pound.

Apples, green or ripe, 25 cents a bushel; dried in any form, 2 cents per pound. Grapes, 60 cents per barrel of three cubic feet. Plums, 2 cents per pound, prunes 2, figs 2½, raisins 2½. Fruits preserved in their own juices, 30 per cent ad valorem, and if preserved in sugar, syrups or spirits and jellies of all kinds, 35 per cent ad valorem. Oranges, lemons and limes in packages of 1½ cubic feet or less, 13 cents per package, and in about the same proportion for larger packages; in bulk, $1.50 per 1000, and in all cases ad valorem duty of 30 per cent upon the boxes or barrels in which this fruit is imported.

Almonds, not shelled, 5 cents a pound; shelled, 7½. Filberts and walnuts of all kinds not shelled, 3 cents per pound and 6 cents shelled. Nuts of all kinds, shelled or unshelled, not otherwise provided for, 1½.

Bacon and hams, 5 cents per pound; beef, mutton and pork, 2; lard 2, tallow 1. Meats of all kinds not otherwise provided for, including prepared or preserved, 25 per cent ad valorem. Poultry, live, 3 cents per pound; dressed, 5. Horses and mules, $30 per head, except that those animals valued at $150 and over per head, $30 per cent ad valorem. Cattle more than one year old, $10 per head; one year or less, $2. Hogs, $1.50. Sheep one year old or over, $1.50 per head, and under one 75 cents. All other animals not provided for in the Act, 20 per cent ad valorem.

The list is not complete, but it gives an outline and shows clearly how many products, for the success of which we are now striving in California, are affected by the danger of removal of protection. Others not mentioned are just as seriously menaced.

It has been pointed out that in the above list, there are only five farm products of which we are exporting more than we import. These are wheat, corn, oats, cotton and meat. On the other hand, we import more horses, wool, barley, hay, hops, flax, hemp, sugar, rice, fruit, beans, peas, potatoes, eggs, poultry and a whole long list of vegetables than we export. It is this large list of articles which it was hoped the country under the protective system would produce for itself.

The present situation is one which calls for the closest vigilance and the fullest weight of influence on the part of producers. No doubt many things can be measurably saved from anything like a sweeping reduction by clear statements of the injury which such legislation would work. It is too soon to declare, but it is just the right time for producers to study and confer on these subjects as they have never done before.

Australian Lemons.

About 1000 boxes of Australian lemons have arrived in this market recently, and it is reported that they have been quickly and satisfactorily disposed of. The commission merchant who received them has rather an ambitious project in view, which he thus describes:

I would make San Francisco the distributing center, and while many persons may think that such a plan could never be carried out, there is nothing difficult about the undertaking, and our positions can easily be explained. We are in a position to receive goods that are as good as those that come from Spain or Italy. We can receive them in much shorter time from Australia than they can be sent from Messina, Catania, and other parts of Italy. The price is greatly lessened. What must follow?

As soon as a steamer arrives, at once dispatch the lemons to any point in the United States, and it will not be long before San Francisco will become the distributing point. When you can receive goods quickly and in first-class shape, and dispatch them promptly at a price considerably below what was heretofore paid for an article that is no better, success must follow.

The merchant's idea seems to be that a vast quantity of Australian fruit can be brought in here and sold without interference with the California lemon product, for he says: "When California's supply gives out, as it did a short time ago, there would be no necessity for depending on the shipments from Italy and Spain."

The weak point in the merchant's proposition and the injury which such a project as his may work to our own producers may be seen when one recognizes the fact that the supply of California lemons need not give out as it now does and that in the future it will not give out. It is quite possible, by the new methods of curing and storing lemons which our own producers have developed, to market the California product continuously and to furnish the fruit at any time of the year that it is needed. Of course, at present the product of these fine lemons is small and the supply is exhausted, but when the lemon orchards recently planted and those now being projected come into bearing there will be no call for lemons from Sicily, Australia, or any outside region, and the distribution of lemons will be from California and of the California product. San Francisco will not be the center of such trade, but that does not matter, the profit from the business will build up the whole State, and that is a higher aim.

The Alameda County Flower Show.—The increasing interest in popular contests for floral eminence can be seen in the qualifying success of the first fall show held last week at Oakland by the Alameda Floral Society. It was held during the closing days of election week and had, therefore, many distractions to contend with, but in spite of these the patronage was good. From the exhibition standpoint the affair was a great success. The ground floor of the Mills Tabernacle, the largest auditorium in Oakland, was fairly crowded with exhibits. The display of out-door roses was much greater than the State Society's show in this city the previous week; the show of chrysanthemums and of ornamental and foliage plants was naturally less than at the great display in this city. The success of the first effort in Oakland will lead to continued effort in the same direction. It should also stimulate to similar undertakings in all towns of considerable population with suburban gardens and greenhouses.

A Mole Which Ate Vegetables.—We have had much of late about ground pests. A few weeks ago we published Prof. Washburn's interesting essay on gophers and moles, in which the latter's disregard of vegetables was reaffirmed. An Oregon lady, Miss Talbot, dissented from this old tenet and proposed to demonstrate the contrary. At the last fair of the Portland Mechanics' Institute, Miss Talbot had a vegetable-fed mole on exhibition, and of her experiment a Portland exchange says:

Miss Talbot trapped a mole, caged it and put it on a vegetable diet, which seemed to suit it admirably from the start, and now, after months of an exclusively vegetable diet, it appears hearty and healthy and eats readily almost any kind of vegetables, but is especially fond of peas. Miss Talbot's investigations in this matter have resulted in a valuable addition to the public stock of knowledge about moles.

Personal.—Emory E. Smith, Assistant Professor of Horticulture at the Stanford University, has returned from his first summer's observations and studies abroad. He made a very interesting *extempore* address on sights in foreign lands at the meeting of the Floral Society last Friday.

The convention for the advancement of women met in Memphis, Tenn., recently. The session will continue for several days.

From an Independent Standpoint.

The brief outline of election news given in last week's RURAL is in the main confirmed by later reports. Not only has the fact of Mr. Cleveland's success been confirmed, but his majority is even greater than was suspected. He carried all the Southern States with Connecticut, Illinois, Indiana, New York, New Jersey and Wisconsin. His majority in Connecticut is 4500; in Indiana, 11,000; in Illinois, 30,000; in New Jersey, 16,000; in New York, 45,000; and in Wisconsin, 12,000. Ohio is in doubt, and it will require the official count to determine whether its vote will be given to Harrison or Cleveland. Analysis of the popular vote demonstrates that he has a half a million pluralty over Harrison and a majority of between 400,000 and 500,000 over Harrison and Weaver together. If all four of the so-called doubtful States had cast their votes for Harrison, Cleveland's gains in the States heretofore deemed surely Republican would have given him the victory. Mr. Cleveland, therefore, is not only elected, but is elected by the Northern vote. The Populist success was limited to the four States of Colorado, Kansas, Idaho and Nevada. Of these four, Colorado, Idaho and Nevada gave Weaver their votes with almost single reference to the silver question and as a protest against the anti-silver attitude of the Republicans. In Kansas it was a square Populist victory by a majority of 6000. The House of Representatives will be Democratic by about 100 majority and the winter returns to the Senate will give that body also to the Democrats by a very narrow majority. Thus, next March, for the first time since the war, the Democratic party will find itself in complete control of all the departments of the Government.

California's electoral vote will go to Harrison by a majority not yet officially reported, but in the neighborhood of 4000. The Legislature, however, is Democratic and will choose a Democrat to succeed Senator Felton, whose term expires in March. Of the Congressional candidates, Geary (Democrat) is elected in the First District; Caminetti (Democrat) is elected in the Second District; English (Democrat) is elected from the Third; Maguire (Democrat) is elected in the Fourth; Loud (Republican) is elected in the Fifth; Cannon (Democrat and Populist) is elected in the Sixth, and Bowers (Republican) is elected in the Seventh. The Populist vote in the State at large is about 24,000. In San Francisco, Cleveland's majority is about 7000, but the city was so split up in factions that no party can claim a triumph in the municipal voting. Ellert, Non-Partisan candidate for Mayor, representing specially the anti-De Young sentiment, was elected by about 4000, his closest opponent being the notorious Dr. O'Donnell, an all-round political crank, who stood as an independent candidate. The voting in the city was almost altogether outside of party lines and resulted in the election of a mixed Board of Aldermen and of a miscellaneous assortment of Democrats, Republicans, Non-Partisans and Independents in the several executive departments of the city government.

On the eve of the election both of the National parties professed entire confidence of success, but it would be difficult to determine which was in fact more surprised by the actual result. The Republicans were simply stunned by the completeness of their rout and the Democrats were scarcely less seriously affected by the completeness of their triumph. Probably nobody expected such a radical change in the political complexion of the country. In all parts of the Union leading men have, during the past week, been trying to get their reckonings and give some intelligible explanation of the event. Mr. Whitelaw Reid attributes it wholly to the tariff policy of the Republicans. Mr. Harrison attributes it to the candidacy of Mr. Whitelaw Reid, to the incapacity of Chairman Carter and to the fact that his advice was not followed in certain aspects of the campaign. Mr. Depew thinks it was due to his being limited to speech-making and having no part in the planning. If Mr. Wanamaker has any definite ideas, he failed to make them clear in the statement of a half column in length—and so on. There are explanations upon explanations by men public and private and by newspapers of the country, the general verdict being that the election turned wholly on the question of the tariff. Unquestionably the tariff was chief among the causes of the landslide, but we venture to suggest a cause which none of the great men of the country seem to have discovered, namely: profound disgust on the part of the Republican masses, growing out of mismanagement of the party and of the fact that unworthy men have been allowed to lead it away from the principles upon which it was founded and upon which it claims the popular support. Many Republicans, who usually stand with the party for patriotic rather than partisan motives, voted either for Cleveland or for the Populist candidate because they would not follow Mr. Clarkson, Mr. Platt, Mr. Quay, et al. In our judgment, disgust with the self-appointed leadership of the party, combined with disgust at its failure to take up the labor question, the immigration question, the currency question and other vital issues of the time, lost to the Republican party a sufficient number of voters to have carried the election. As we look at it, the Republican party has been defeated through resentment at its failure to cast off its offensive leaders and take up the new questions with the old courage. The tariff unquestionably cut a figure, probably the the largest figure in the fight, but it was less on account of the tariff than dissatisfaction with the management of the party and its attitude toward the new issees.

For example, California elected a Democratic legislature, which in turn will elect a Democratic Senator, and its Republican vote was cut down nearly 20,000. What was the cause of this? Surely not the tariff, for, in a local sense, California profits by the tariff. It was chiefly because nearly 20,000 of those who have been Republicans had lost faith in their party. They resented the domination of corporation attorneys in the party conventions; they resented the election of Mr. Stanford (chief among railroad men) to the Senate; they resented the failure of the last Republican legislature to enact laws in the interest of the people at large because there was opposition from the corporation and monied interest; they resented the general rottenness of that same legislature, and they resented most bitterly the consequences and sum of all these degradations, the candidacy of M. H. DeYoung for the United States Senate. These, in brief, are the reasons why nearly 20,000 California voters who have heretofore acted with the Republican party, deserted its standard and voted either for Weaver or for the Democratic candidates. These voters, who have taken the bit in their teeth, are just as devoted as they ever were to the old principles, and will return to the party when the party returns to itself, but they have learned the lesson of independence and can never again be counted on to support the party unless the party is right.

Mr. Cleveland has discreetly kept his mouth shut since the election, but his friends and enemies are doing a great deal of talking for him. Yesterday (Tuesday) it was reported that he had declared his independence of Tammany. He was quoted as having said in private conversation: "I am under no obligations to Tammany Hall or any other organization for my election, and I do not propose to be dictated to by anybody. New York State did not choose me to be President of the United States, hence I can get along well without any further advice from that quarter. Now that I am President it is my intention to be the head of this nation in reality, and I will not permit any dictation as to my future actions." The authority for this report is shadowy. It is reported on the other hand this (Wednesday) morning by the N. Y. *World* and other Democratic papers that the whole of the Government patronage in New York is to be turned over to the Tammany organization to be dispensed by its chief boss, Dick Croker; that there will be a clean sweep of all Government employees in New York not directly under the protection of the civil service laws. It is further said that Mr. Grace, formerly Mayor of New York and the leader of a large faction, will be allowed to name the ministers to Chile and Peru, where he holds large commercial interests. We suspect that one of these reports (which we find in the morning's *Chronicle*) is about as true as the other (which we find in the morning's *Examiner*). It illustrates the general confusion respecting Mr. Cleveland's plans and the general unreliability of so-called political newspapers.

Mr. Cleveland's position is in one sense an exceptionally hard one. He was elected by a combination of three political elements—by the old line Democrats, the Tammanyites and the Mugwumps. Between these several political forces there are no points of sympathy or affinity. They are as wide apart in views, motives, habits and tastes as the Hindo castes. They hate each other with a holy hatred. Elements divided like these may sometimes be organized for a political fight, but they can never be brought into cordial and continual support of an administration. If Mr. Cleveland shall administer his office on reform lines, he will please his Mugwump friends, but will antagonize the bulk of his support who are quite of another color. If, on the other hand, he shall undertake to satisfy Tammany, he will offend the Mugwumps and disgust the country. There is no middle road. Mr. Cleveland must choose either one or the other horn of the dilemma, and in either event he is certain to have a fight on his hands. He faces, therefore, the most serious problem which has confronted any President since Lincoln, without the strength which a united party support would give him. It will be no small job to carry out the pledges of the Democratic platform, and it would not be surprising if Mr. Cleveland should break down in the attempt.

It is too early to tell just where the election leaves the new People's party. As yet its vote in the several States has not been reported in detail. On the Pacific coast it has certainly made a strong stand. Idaho and Nevada are its own; Oregon gave it one-third of its vote; Washington gave it a vote described as "notable" but not yet reported, and California gave it about 24 000. It is clearly in the field to stay, and it is, in our view, likely to swallow up one or the other of the old parties. It has what both of them lack, a courageous, progressive policy based upon moral as well as material issues. It is not afraid of the questions of the day, but addresses itself boldly to them. It has in its boldness, in its conviction and in its moral force the germs of a great and successful party. The RURAL does not seek to conceal its dissent from the more advanced positions of the People's party; but it is not blind to the fact that the party has in it more good than bad. If it will temper its earnestness with wisdom, make itself a *national* instead of a *class* party, and adjust itself to *reform* instead of *revolution*, it will be in a stronger position than either the Republican or Democratic parties. But to accomplish this, to put itself in a position to command the support of moderate and conservative forces of the country, it must find new leaders. Men ignorant alike of history and economics, and whose whole claim to attention is a loose flood of irresponsible and vehement talk, never yet organized a successful campaign or led a party to victory.

Mr. Cleveland's cabinet-makers have struck one piece of sound timber, and Californians will be on the *qui vive* to see whether the great party of reform can rise above "political considerations" and put a great department of the Government in the hands of a man who is not a politician, but is perhaps the foremost man of the country in knowledge of agricultural industry, its needs, the scientific principles which underlie its practices, and in grasp of the means by which the agricultural interest may be advanced and made more prosperous. That such a choice is contemplated is shown by a Washington dispatch to the San Francisco *Examiner* of Tuesday morning which says:

> The hope is freely expressed that something may be done to lift the Department of Agriculture out of the rut of politics and humbug in which it has been traveling ever since it has been created, and make it what it ought to be—the great scientific branch of the Government. Representative Hatch of Missouri has been spoken of for Secretary of Agriculture. * * * Ex-Governor J. Sterling Morton of Nebraska is spoken of as a man of the right kind, and Professor E. W. Hilgard of California is another. * * * It is needless to describe Professor Hilgard's attainments to Californians. He was proposed for Commissioner of Agriculture before the office was raised to the Cabinet rank, and he is fully qualified to manage the department, no matter what the title of its head may be.

This estimate of Prof. Hilgard's abilities and fitness for the place is eminently correct. His appreciation by the California people is also pronounced, and undoubtedly the new administration could do nothing better calculated to enlist the interest and sympathy of Californians than to call Professor Hilgard to a place in the Cabinet. His knowledge of agricultural science is profound, and its soundness, point and value are the greater from the fact that he never forgets that agricultural practice and science are indissolubly associated. Through the quickness of his perceptions, the accuracy of his scientific deductions and the warm geniality of his nature, he has drawn nearer to the needs and closer to the affections of the agriculturists of this country than an agricultural teacher has ever approached before. In the recent wonderful advancement which the United States has made in agricultural experimentation, Professor Hilgard was a pioneer, and has always been counted a moving force. In the recent advancement in agricultural meteorology, and in the problem of the utilization of the expanses of arid lands, every publication outholds Professor Hilgard's investigations and deductions as authority for progressive movements. In the newer industries for the newer States' soils and climates, the terms "California" and "Hilgard" become almost synonyms. It is not surprising that the Washington governmental experts should fasten upon his name in their earliest suggestions to Mr. Cleveland, nor will it be surprising if Mr. Cleveland accepts such spontaneous advice. As our readers know, Professor Hilgard is now in Europe for a year's rest and observation. Californians expect him to return to his work here refreshed and reinvigorated. There is a score of years of usefulness for him before California can think of putting him on the retired list. Nothing but the greater needs of the whole country could reconcile us to his withdrawal even for the duration of a presidential administration.

THERE is a lively contest between Mendocino towns to secure one of the two high schools the people have voted to build. Ukiah will undoubtedly have one.

Southern Pomological Meeting.

The following is the program of the autumn meeting of the Pomological Society of southern California, to be held on Tuesday and Wednesday, Nov. 22d and 23d, in the Board of Trade room in Pomona, beginning at 10:15 A. M. The following subjects will be presented:

Address of welcome, by J. E. Packard of Pomona; response by President L. M. Holt of Riverside; reading minutes of the previous meeting by the Secretary, E. Edson Smith of Santa Ana; admission of new members; reports of officers and committees, etc.

Experience with Ten Acres in California, by D. Edson Smith of Santa Ana.

Orange Culture, by M. Baldridge of Pomona.

How Can We Make the Most Money Out of Our Deciduous Fruits, by W. H. Holabird of Claremont.

A Talk about Farmers, by C. M. Heintz of Los Angeles.

At 3:30 o'clock a carriage ride to points of interest will be tendered to the members of the society by the Pomona Board of Trade.

At the evening session, 7:30 o'clock: Successful Methods of Curing Lemons, by E. W. Holmes, editor of the Riverside *Press*.

On the second day, morning session, 9 o'clock: Taxation of Fruit Trees, by Judge Franklin Blades of Pomona.

Olive Culture, by John S. Calkins of Pomona.

Green Manuring of Orchards, by Prof. E. J. Wickson of the University of California, Berkeley.

At the afternoon session, 1 o'clock: Destroying Insect Pests on Citrus Trees by Fumigation, Dr. J. H. Dunn of Pomona.

Almond Culture, by Percy W. Treat of Davisville.

Trapping Gophers.

FILLMORE, VENTURA CO., Nov. 11, 1892.

TO THE EDITOR:—I see a good piece in the last RURAL pertaining to gophers, but the writer did not exactly describe the kind of trap he uses. I have used some half-dozen different kinds, and I give the preference, decidedly, to a small steel trap, not over two inches across the jaws when set. Find a hole into the runway if possible, I sometimes use a small iron rod, dig to it, disturbing it as little as may be; shove the trap some inches either way into the runway, stake the trap, and pile up clods carefully to stop the hole you made, and, at the same time, leave the runway clear, so the gopher can pass and repass, and, if well and carefully done, you are almost sure of your gopher.

If you cannot find the main runway, this trap is no better than any other, as, half the time, he will push it to one side or cover it with dirt. If there was a call for them, these small traps could be made for 10 or 15 cents each. A blacksmith could make them, but he would dislike the job. My son Eugene, of Santa Barbara, makes them for 25 cents each. The spring need not be strong; a gopher will scarcely ever pull out of them.

The farmers on the Sespe have their work mostly done, and are waiting with smiling faces and happy, thankful hearts for the coming rains. Raisins are made; beans are threshed and housed; some little dry plowing is being done. The season, though rather dry, has not been an unproductive one, and we hear very little complaint. Money is rather scarce; still, we do fairly well. S. P. SNOW.

The Anaheim Vine Disease.

SANTA ANA, CAL., Nov. 15, 1892.

TO THE EDITOR:—Our preliminary bulletin on the "California Vine Disease" is about to appear from the Government press. Wishing it to reach those who would be most interested in the same, it would give me pleasure to forward such names as you may think proper to recommend for copies in your region. The edition is limited, and an early reply will be necessary to insure the names reaching the Department in time. The report will probably be out of press in a few weeks or sooner. A discreet selection of those who would be most benefited by the bulletin is desired. NEWTON B. PIERCE, Special Agent.

[It seems to us the best way to get this report into the hands of those who really desire and would be profited by it, will be to advise our readers who are interested to make immediate application to Mr. Pierce at Santa Ana.—ED. PRESS.

Prof. Coquillett Dissents.

LOS ANGELES, CAL., Nov. 12, 1892.

TO THE EDITOR:—I am sorry to find that on page 408 of the issue of the RURAL PRESS for Nov. 12 the erroneous account contained in the *Times* of this city, relating to the late meeting of the Horticultural Commissioners, is republished without noticing the correction which I gave in the *Times* of Nov. 6. I give herewith a clipping from the *Times* making this correction:

D. W. Coquillett writes to the *Times* that he was not present at the recent meeting of the Horticultural Commissioners, and did not render a report. as stated in the published proceedings, He says he found the newly imported ladybirds breeding in Alameda, as well as at Santa Barbara. Four hundred insects, not colonies, were sent to Santa Barbarba.

I regret very much that the original account of this meeting was republished, since it comes so wide of the truth.

D. W. COQUILLETT.

Botanical Notes.

SAN JOSE, Nov. 14, 1892.

TO THE EDITOR:—Our native red-flowering currant, known to botanists as *Ribes sanguineum*, or the blood-stained currant, is now in full bloom near Los Gatos. Laurel trees there have been in bloom for some time. The scarlet berries of toyon are now ready for the Thanksgiving and Christmas week harvests. By-the-way, it will be too bad if the very inappropriate name holly becomes fastened to this shrub. It is no relative of holly and does not look at all like it. Since its botanical name, *Heteromeles*, is rather cumbersome, why not retain the much older Indian name, *toyon* (pronounced *tow-ey-own*—both o's long). The spelling is Spanish, to be sure; but it ought to be, since the Mexicans spelled it first. The name *Christmas berries* is no name, for holly and mistletoe are also Christmas berries. Toyon berries often remain on the bushes (or small trees) until the last of May, or fully six months. V. R.

TRACK AND HARM.

An Orange County Race, Again

SANTA ANA, Nov. 9, 1892.

TO THE EDITOR:—Does not much the same world which "dearly loves a lover" love the horse also—the horse, his intelligence, grace, speed, susceptibility to improvement? I think so—much the same world. And it is a pretty sizable world, I'm a-thinking, even when the "roughs," "toughs," and gambling, tricky "sports" are counted out.

Surely it is a pure, innocent love, disinterested, tenderly appreciative, among worthy souls, from Job down. Why should the wicked, the coarse, the reckless, gambling fools, have the pleasure of seeing a good race, a well-trained horse in swiftest action, all to themselves? I protest.

The RURAL, which Oct. 8th last published my account of the Orange County Fair, and so kindly editorialized upon it, did not perhaps know that therein, for the first time in my life, I reported a horserace. Yes, and for the first time went to one. But I imagine most masculine readers guessed as much. Ah! Mr. Editor, you would have laughed to hear my son's (he is old enough to vote) comments thereon. With that *fin de-siècle* air, so awe-inspiring to the maternal heart, he pished and shamed over my little mistakes in race-course talk and pool-room phrases.

But I know better now. I shall not say "jockeying" when I mean "scoring" again. And I have learned that the men who bet on horses "never talk fractions." I have learned a good deal more than this, too. Alas! yes. Something of the seamy, tricky, conscienceless side of the many, perhaps the most who professionally make money racing horses. But I am not going to love a good horse or enjoy a good race any the less. Not I. Rather more; admiring the integrity and firmness which makes, any where, the last possible.

To-day, on our nice race-track here in Santa Ana, our "Silkwood" raced with "Our Dick" The challenge came of the race last month, wherein Silkwood was beaten by Our Dick. And Silkwood won in "three straight heats." Time, 2:08¾, 2:11¼, 2:13. But I am not going to tell of the jubilation, the roars of applause, 'rahs and tigers (why, one little woman, who sat sewing at an open window a mile and a half away, said she could tell Silkwood was winning by the noise); nor of the flutter of yellow, and the local pride and pleasure so naively expressed, at our winning in "the greatest harness horserace which has ever taken place in the State."

What I must tell, is how we treated Tom Keating when he came to town—rival and victor over our horse as his Our Dick had been. He was met by a welcoming band and delegation, escorted "with flying colors" through town to the best hotel, where he was kept all the week before the race as the guest of the association.

"I tell you what," exclaimed a citizen from another county, cognizant of it all. "I tell you what, the directors of the Orange County Fair Association are white men, no mistake!"

Our neighbors say it is all, or nearly all, owing to J. E. Pleasants, president of the association and judge at the racetrack. Reporters who came here are loud in his praises. One, who has reported races for 20 years, could hardly say enough in Mr. Pleasants' praise; said he was the model judge he had been looking for all these years. Surely, with so dignified and courteous a presiding judge, one of the best tracks in the State, and "our" Silkwood, Santa Ana races will become famous, even outside of California.

I have heard more than one word from my amateurish report. Not the least interesting of these words was of one of the stateliest, demurest, dearest of "old maids" in the far east, who read my account with pleasure, and who, I learned thereby, reads about all the fast horses and is wonderfully fond of hearing about races. And thus my idea of the size of the world which loves horses and a good race was enlarged.

And so, too, the other day, I was not quite so much paralyzed when I read of a Californian who paid $150,000 for the great thoroughbred, Ormonde.

"Approximations to the goal
The philosophic mind contents"—

So we will be glad of a place where, at its best possible in this "sinful world," gentlemen and ladies can enjoy a good horserace, a place where pool-selling is not too conspicuous, and gambling "sharps" and "fools" are in the minority.

As for these last, how amusing to the feminine mind are the vagaries of the masculine mind, when it would a-betting go—specially on horses. Really, some of them might as well open their wallets and say to the crowd around, "Here, help yourselves," as "plunge" the way they do—if Dame Rumor speaks the truth. One is reminded of a saying, once most aptly quoted: In a certain church, where was a charity box, the children were instructed, as they dropped their eleemosynary coins, to say a few appropriate words, presumably a text from scripture. There, one day, a little tot, as she deposited her penny, was overheard to say, with serious, uplifted eyes, "The fool and his money are soon parted." Nor could the surprised, amused bystanders discover of her where she learned her text. But it is to be recommended to the better at horse races.

AUGUSTA E. TOWNER.

THE APIARY.

Does Beekeeping Pay?

SAN MATEO, Nov. 5, 1892.

TO THE EDITOR:—Quoting from Mr. W. A. Webster's letter in your issue of Nov. 5th, that gentleman says: "To the often recurring question, 'Does beekeeping pay?' the writer would say yes; but would qualify this assertion by stating that success is quite as dependent upon environment as that of any occupation with which we are familiar. The unhappy apiarist is the toy of the elements, in which a slight variation from normal means failure. There are some locations, I believe, both east and west, where, with combination of skill, a good measure of success is obtained year after year."

The above question is one which I am often asked, and my answer is invariably "Yes! if the business is thoroughly learned and properly attended to." I agree with Mr. Webster that some localities are much better than others, but of course when a person wishes to go into beekeeping as a business he must, naturally, first of all find a suitable location.

To become a successful apiarist it is absolutely necessary in the first place to learn the business, for (like stock-raising and poultry-keeping) the business must be thoroughly understood befor you can expect to make it pay.

You must hive your bees into frame hives of the most approved pattern. You must learn the most approved modern methods for the production of comb and extracted honey (a great deal may be learned by reading some good work on beekeeping, and I know of no better book for this purpose than Root's "A B C of Bee-Culture.") Study the honey flows and have your stocks strong at the right time. Your honey must also be put up in the most attractive form for market.

One of the most approved patterns in hives is the dovetailed hive. It is dovetailed at the corners and, being very simple in construction, is easily put together. It is generally conceded that this hive is the best for the production of comb honey and is equal to any other hive for the production of extracted honey. It has received the hearty indorsement of many large and experienced beekeepers, alike for its simplicity, strength, durability and cheapness. In a future issue I hope to give a full description of this hive, with cuts showing the different parts.

Many apiarists lose quite a large amount of honey by not putting on their top story or "super" soon enough in the season. Last March we were visited by a well known apiarist, who has 500 colonies of bees a few miles south of us, and he was surprised to see that we had already got on our "supers" and several colonies had stored 24 pounds each of nice white comb honey in one pound frames. Our friend had never heard of such a thing and did not know it was possible to get any surplus honey so early in the season. The result was we had 30 to 50 pounds of comb honey to each hive before our friend had ordered any sections from his supply dealer. This was simply the result of watching the honey flow and having the hives full of bees at the right time.

To give an idea of the honey resources of southern California, I will give a few extracts from Mr. J. H. Martin's letter in *Gleanings* for October, and if friend Webster is determined to seek fresh fields and pastures new, we would strongly recommend him not to go east, or west, but to "go south, young man! go south!" Mr. Martin (speaking of beekeeping around Jurupa mountain) says:

To give some idea of the honey resources of this little range of rocks, with the aid of Mr. Clark on one side and Mr. Wilder's broncho on the other, I obtained some notes and snap shots from the saddle. Setting out from the Rambler's cabin and following down the north side of the range, after a mile of travel we find the apiary of Mr. Choate. Here are 100 colonies, and though the stocks were very weak in the spring, the surplus amounted to 2500 pounds. * * * * * * We now proceed nearly a mile farther, and in front of the broad and level Cucamonga valley we find the 200-acre ranch of Mr. W. E. Clark, with cattle, horses, poultry and fruit trees, and 170 colonies of bees. While Mr. Clark operates the ranch, Mrs. Clark operates the bees and proves to be a skillful operator. This apiary was started six years ago, from the colonies that were dug from the rocks above the ranch. Being novices in the business, the bees were first put into various nondescript hives, but learning of the better management in movable-frame hives, the swarms were properly transfered. After an increase of 75 swarms from 17, and considerable honey in one season, the bee enthusiasm increased, and the apiary now numbers 170, and the product this poor season was 10,800 pounds. Of course they believe beekeeping pays, even in a poor season. The nearest neighbors are two miles away, and one of these, a Mr. Button, with a poor season before him, commenced with 25 colonies, increased them to 50, sold some stocks, and secured 2000 pounds of honey, a few colonies "giving down" at the rate of 200 pounds each. Down toward the west end of the range we find the apiary of Mr. Langton, an Englishman who came to California with barely a hope of saving his life from the serious inroads of consumption, but the climate has given him a measure of good health and hope for many years on this terrestrial ball. We found Mr. L. very busy hanging out the family washing. Mr. L., during this very poor season, has increased his bees from 33 to 62 and secured 5400 pounds of honey. * * * * We now pass around the mountain and work our way up the south side, and a young man, Mr. Rance, from 25 colonies in the spring, increased to 50 and secured 3120 pounds of honey, which is not bad for a young man during this poor season. Another hitch along the base of the mountains and we enter a very rocky and cup-shaped canyon; in fact it is almost an amphitheater, with its abrupt, rocky walls on three sides. Here is an apiary of 115 colonies, owned by our friend Wilder. In this rocky retreat Mr. W. has, in this season of uncertainty, taken 9120 pounds of honey and seems to have no appearance of the blues. * * * * The nearest apiary to Riverside, on this range, is owned by Mr. Parks. His hives are among great rocks just above his ranch, and he has the reputation of securing the largest yields of any beekeeper in the vicinity. This very poor season his yield from 65 colonies is only 6000 pounds. Three years ago he had a good season and his 75 colonies gave him 33,000 pounds, or on an average of 440 to the swarm.

The above illustrations show what can be done with bees in California in a poor season. What think you, reader? Does beekeeping pay? WM. STYAN.

POULTRY YARD.

Incubation.

LODI, Cal., Nov. 9, 1892.

TO THE EDITOR:—Now is the time when all who have incubators, and who desire to have young roosters and large broilers to sell when prices are at the highest, should get them out and set them in operation. True, eggs are at a price which seems to say that it is much wiser to realize on them at once than to take the chances of hatching and raising with the added risk and expense connected with it at this season of the year. The young chicks then will need the greatest care to keep them warm, and this necessitates a room prepared with special reference to it and furnished with a stove or hot water pipes with which to keep an even temperature that the chicks may not be chilled and their growth partially, if not entirely, checked. If this occurs, they become very nearly, if not entirely, worthless and might as well be disposed of at once, as they either linger along a longer or shorter time according to their degree of strength and the power of resistance their constitution enables them to offer to the consequences of the injury done them by the chilling. Injury may also be due to the close-heated atmosphere of an imperfectly-ventilated room which lacks a sufficient supply of fresh air of the proper temperature to insure the well-being and healthy growth of the chicks. There is a much greater percentage of loss in chicks at this season of the year, however careful one may be, than in the bright, warm springtime, which nature seems to say is the proper time for the hatching of young chicks when the temperature is warm and even and tender young grass and insects and worms are abundant. At this season these must be artificially supplied, nor can it be done in as complete and satisfactory a way as nature at the proper season will do it.

However, the high price which one gets during April, May and June, and sometimes as late as the middle or even the last of July, compensates one for all the loss, added expense and extra care and high price of eggs at time of hatching in the fall. It is just the difference between from $4 50 to $6 and $13 to $15 per dozen. You may count ordinarily on raising to marketable young roosterhood condition a little less than one-half your hatch during the fall months, unless the weather should be more than ordinarily favorable, as it seems inclined to be this year, for both days and nights are warm and tender green grass and shoots are abundant. In the springtime, as it ordinarily is, the loss does not exceed one-half of the hatch under proper conditions of management, and is oftener less.

True, the eggs in the fall are not to be relied on as fertile as in the springtime, and there is the difference in price per dozen between 40 or perhaps 45 cents now and 15 or 20 cents in the spring; but to offset all this is the great difference in the price of the fowls marketed from the fall-hatching and the price of those hatched in the spring. The former is more than double, possibly three times as much, and this excess I think amply reimburses one his added expense and care and a handsome balance besides, if he does not rate the extra care and annoyance at losses at too high a figure.

This figuring applies more properly to the young roosters one raises than to the pullets perhaps, but then to offset the apparent lack of equal value of the pullets, one must bear in mind that the pullets hatched and raised during the fall and winter months are ready to go to laying in the early spring and at from four to five months old, while those hatched and raised during the spring and summer months, one must carry until the next springtime without income from them, which is a consideration, particularly when feed is high and you do not raise your own.

Many object to using incubators, and for various reasons, such as, for instance, the uncertainty of the operation and the lack of vitality in the chicks hatched in this manner, or that it is much less work to hatch with hens and the belief that they are sure to get more and better chicks. Some claim also that the chicks artificially hatched can never become laying hens. All these ideas, as far as my experience and observation go, are mistaken, for with properly-constructed incubators and knowledge and care in operating them, you may count on 90 per cent of your fertile eggs hatching and turning out good, strong and healthy chicks which will as surely become layers as they surely become hens of the proper age to lay. This I know because I have not had until this season fowls that were hatched in any other manner, and would not have had any other kind this year only that I wished to try the experiment of buying grown pullets in order to learn, by testing both methods, which was the better and least expensive of the two. My present stock then consists about equally of artificially hatched and hatched by natural process.

The result of the experiment seems to be that, leaving out of question the matter of skunks and sparrow-hawks, I much prefer raising my own artificially-hatched chicks. Skunks and sparrow-hawks in this locality enter largely into the consideration of the question, as for the past two seasons they have been very abundant and destructive in spite of all care and watchfulness. However watchful one may be, the nimble and business-like sparrow-hawks will destroy numbers of them, and being so rapid and wary in their swoop and flight, it is almost impossible to shoot them. Skunks one may more nearly provide against by the use of wire netting in the manufacture of the coops in which the chicks are kept at night, and floors should be provided as well to the coops or the pests will dig under, and then good-bye to the brood, be they many or few. I had a lot of 140 fine young Brown Leghorns destroyed in a single night by one miserable little weasel-skunk, which found an entrance where I did not think even a large-sized mouse could get in, and I suppose that he was not more than ten minutes in killing the lot, biting each one through the heart. One may see then that the utmost care is necessary in localities where such pests abound, and even then a loophole seems to be sometimes overlooked and mischief done.

With regard to the egg-producing qualities of the two kinds—the artificially-hatched and those hatched by natural process—I can see no difference, one kind being as good layers as the other, and for years I had only incubator fowls.

With regard to the uncertainty of a full hatch of good, strong chicks by incubation, as I have already said, with a standard incubator such as the Petaluma, the Golden Gate, the Halstead or the Pacific (and perhaps many others as well), and with watchfulness and care for details, however small and unimportant they may seem to be, a full hatch of strong, healthy chicks may be counted upon. If, however, one is careless, and the thermometer indicates one temperature one day and another the next, varying, perhaps, many degrees, then your chicks, if indeed you hatch any, will lack constitution and be worthless.

The temperature of your egg-chamber should be kept as nearly as possible at 104° and the eggs carefully and certainly turned each morning and evening and a proper degree of moisture secured to the eggs, which in some machines is provided for by the use of sand moistened with warm water each time that the eggs are turned, and in others by the use of cups of water or moistened sponges. The moist sand I think is preferable.

The matter of testing the eggs, in order to remove all that are not fertile, should be attended to on the third and fifth days, and all infertile ones removed, as with the heat they become spoiled and infect the others.

But the matter of successful incubation and brooding of chicks cannot be thoroughly treated of in one short article, and as this one I am afraid may be found long enough, I will defer what remains to be said to another opportunity, wishing to say, however, before closing that I wish some one who knows would take up the matter of sickness and disease in fowls which, in this locality and, so far as I can learn, in other parts of the State, appears to be unusually prevalent and fatal.

T. B. GEFFROY.

THE DAIRY.

Dairying and Milk Yields.

Written for the RURAL PRESS.

As a consumer of the products of the farm, the well-managed milch cow is the most profitable animal that can be kept. She will give six or eight times her own weight in milk each year, supposing her to be a cow of 1000 pounds in weight; hence the necessity of good appetite, digestion and constitution. All these must be good, or the cow cannot be either a good milker or a long laster.

When we consider that each 1000 pounds of milk contains something like 130 pounds of dry matter, we find that the cow giving 8000 pounds, or eight times her own weight in milk, returns in that product dry matter alone about equal to her own weight, which, again, is fully double the weight of dry matter contained in the flesh gained by a well-fed steer during the year, that has consumed food about equal in value to that eaten by the milch cow.

The comparison made is between the best class of milch cows and the best class of fattening steers, which latter, when we compare in the same way against the average milch cow of say 4000 pounds per annum, has no advantage over her in the matter of obtaining from land an amount of food useful to man.

While 4000 pounds of milk a year is undoubtedly above the average yield of the whole of the cows of this country, we may safely assume that it would be under, rather than over, if they were all as well fed during the milking season as are fattening steers when being prepared for the butcher. If we put the best class of cows as giving an average of 6000 pounds of milk per annum, it will readily be seen, as set forth by the above facts, that ten cows, with the above average, will yield a larger profit than 15 cows giving only the same quantity during the year as the ten best cows—each lot giving a total of 60,000 pounds of milk.

It is more than probable that the average quantity of milk given by the whole of the cows on farms in the United States, where either butter or cheese is made (exclusive of milk-selling dairies), does not exceed 3500 pounds per cow. There is therefore room for great improvement being made in the average dairy cow of the country, and it behooves all dairymen to lose no time in making a beginning in the improvement of their respective herds, where they have not already done so. The various products of the dairy do not bring as good prices as they did a few years ago, a fact which makes it imperative, from a financial standpoint, to keep only good cows, the largest producers being, as a rule, the most profitable ones to have. The unprofitable ones ought to be found out and weeded out without mercy, letting them go their own way; that is, to the shambles.

AVERAGE MILK YIELDS OF GREAT BRITAIN.

A short time ago a paper was read by Mr. R. Henry Rew before the Royal Statistical Society, entitled "An Inquiry into the Statistics of the Production and the Consumption of Milk and Milk Products in Great Britain."

In the production of this paper Mr. Rew has endeavored, through correspondence and careful estimates, to get at the average annual yield of milk per cow, which, as nearly as can be come at, after careful deductions, is 4000 pounds.

He says: "As regards the proportion of cows in a herd actually in milk at a given date, I gather from statements made by a few of my correspondents that it might be reckoned at something like 80 per cent." The whole number of milk-producing cows is 3 544,575, which, at 400 imperial gallons (of ten pounds per gallon) per cow, makes the total annual milk production in the year 1890 to be 1,417,000,000 gallons.

Mr. Rew then proceeds to show how the milk is used, and says: "We may reckon it to be consumed as follows: Milk, 570,000,000 gallons; butter, 617,000,000 (representing 105,000 tons of butter); cheese, 224,000,000 gallons (representing 100,000 tons of cheese); miscellaneous (condensed milk, etc.), 6,000,000 gallons.

The consumption of imported butter, cheese and condensed milk, represents a quantity of milk equal to 1,129,000,000 gallons, while the home production of the same articles only represents a milk product of 847,000,000 gallons.

The above quantities of milk are calculated on a basis of one gallon (ten pounds) of milk to one pound of cheese, and 21 pints (262 pounds) of milk to one pound of butter, "collected from a number of records from various sources—English and foreign—which go to justify in their average results the adoption of this standard."

AN INTERESTING MILK REGISTER.

In an appendix to his able paper, Mr. Rew gave the following interesting copy of the milk record of the St. Albans dairy herd of pure-bred Shorthorns, showing the weight of milk given by each cow and the number of days in milk after each calf. We make an abbreviation of the table by omitting the names of 30 cows and give the numbers only:

	First Calf.		Second Calf.		Third Calf.		Fourth Calf		Fifth Calf.		Sixth Calf.	
	Days in Milk.	Pounds of Milk Yielded.	Days in Milk.	Pounds of Milk Yielded.	Days in Milk.	Pounds of Milk Yielded.	Days in Milk.	Pounds of Milk Yielded.	Days in Milk.	Pounds of Milk Yielded.	Days in Milk.	Pounds of Milk Yielded.
1	266	4,723	236	5,002	389	7 190	275	6,570	273	7,007	266	7 237
2	197	2,467	176	1,935	235	5,032	268	5,596	220	2,573	.....	.....
3	289	3,614	350	3,890	300	4,513	26[illegible]	3,8[illegible]3	225	3,09	.....	.....
4	279	4,081	33[illegible]	5 812	246	4,674	334	9,273	.....	.....	.....	.....
5	263	4,041	251	4 102	248	4,165	272	4,853	.....	.....	.....	.....
6	386	5,414	319	4,221	270	3,771	316	4 512	.....	.....	.....	.....
7	327	3 937	271	4 688	244	4,333	219	4,063	.....	.....	.....	.....
8	363	5 349	308	5 973	269	4,473	251	5 784	.....	.....	.....	.....
9	3 0	4,210	367	5,434	267	5 197	379	5,944	.....	.....	.....	.....
10	366	4 566	263	5,020	270	4,593	.....	.....	.....	.....	.....	.....
11	248	3,795	249	3,818	258	4,120	.....	.....	.....	.....	.....	.....
12	432	4 854	320	5,790	.....	.....	.....	.....	.....	.....	.....	.....
13	326	4,1 3	284	5,358	.....	.....	.....	.....	.....	.....	.....	.....
14	400	4 129	213	3,705	.....	.....	.....	.....	.....	.....	.....	.....
15	277	3,360	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	.....	.....	252	6,180	33	5,264	280	6,140	237	6,17	314	7,815
17	.....	.....	.....	.....	229	5,371	332	6 157	329	5,734	4 9	11,162
18	.....	.....	.....	.....	308	5,998	281	5,[illegible]97	47[illegible]	8,481	37[illegible]	10,010
19	.....	.....	.....	.....	.....	.....	196	4 297	30[illegible]	6 680	112	2 215
20	.....	.....	.....	.....	.....	.....	280	5 578	28	3 6 8	140	1,458
21	.....	.....	.....	.....	.....	.....	230	7,753	28	7 99	280	7,588
22	.....	.....	.....	.....	.....	.....	.....	.....	202	6 349	238	5,878
23	.....	.....	.....	.....	.....	.....	.....	.....	163	3 051	25[illegible]	5 591
24	.....	.....	.....	.....	.....	.....	.....	.....	224	4.047	220	5,357
25	.....	.....	.....	.....	.....	.....	.....	.....	423	10,825	.....	.....
26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	251	6,087
27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	341	9,170
28	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	254	4,371
29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Av.	308	4,177	279	4,781	275	4 92	282	5,757	279	5,410	270	6,453

Numbers 1 to 15 inclusive are home-bred cows, all of which are included as in the original table. Numbers 16 to 30 are bought cows, those after the sixth calf being left out.

The are 10 in the seventh calf column, which have an average of 5868 pounds of milk, with an average time of 267 days in milk, the best of which gives 8950 pounds in 345 days. The three columns for cows with 8th, 9th and 10th calves have records of eight cows that average a little over 6000 pounds of milk, one of the cows having been in milk only 186 days and another 196 days.

The record for the bought cows only covers the time they were in the herd, consequently many of them did not have a full season in some years.

For the home-bred animals the record covers the life of the cow and shows that

SHORTHORNS ARE ABOVE AVERAGE MILKERS.

By those who study the above table it will be observed that 15 heifers with first calf average 4177 pounds of milk, with an average time of 308 days in milk. The weight of milk given by these is above the average of that of the whole of the cows of the country.

There is a yearly average increase up to the fourth calf, when the cows may be supposed to have been six or seven years old, which is generally the most profitable period in the life of a milch cow. One home-bred cow with her fourth calf has a record of 9273 pounds in 334 days, being an average of 27.76 per day.

The table, upon the whole, affords satisfactory proof that there are still good milkers among Shorthorn cows, but, with few exceptions, only where the habit of giving milk has been cultivated by breeding for its development and *milking* the cows. Cows that are allowed to habitually suckle their calves are more liable to deteriorate in their milking qualities than otherwise.

Cream from Dairy Exchanges.

A scrub cow is a scrub because there are scrub notions behind her. (Gov. Hoard.)

Second-hand experience is the cheapest kind if you only choose such as fits your conditions.

Every one who makes good butter increases consumption, as every one who eats that kind wants more.

A leading factor in successful dairying is to be made right, careful, neat, patient, thrifty, intelligent, kind, progressive.

A strong argument is made in favor of compelling makers of imitation butter to refrain from using the coloring that often deceives the consumer.

Poor feed causes poor butter in the fall. Look out or you will injure your reputation for good butter unless your cows have something better than weeds and frost-bitten feed to eat.

A dairy editor lately visited a farm whose owner was trying to print something as white as lard, but supposed to be butter. Rotten cream had been churned at too high a temperature for too long a time. The man was smoking a dirty pipe where milk was setting in shallow pans. Behind the door were two sacks of apples, half a sack of

onions, two mattocks, a spade and a butter-box. Nothing in dairying.

Twenty-two farmers constituting a farmers' club in Vermont milk 361 cows that average 253.2 lbs. butter per year. The best herd averaged 332.5 lbs. and the poorest, 200 lbs.

A good writer holds that the physical endowments necessary for the highest production of beef and butter are so contrary that both cannot exist in an eminent degree in the same animal.

Dairy-schools are making great progress. They started ten years since, "headless and helpless," with little means and no experience. Now they are rapidly reducing dairying to an exact science. They are able to trace and locate losses of butter-fat down to one-tenth of one per cent. When shall we have one in California?

The nutty flavor in butter is caused by formation of butyric acid (a volatile oil) and the ferment of the casein in the butter. If this takes place too soon or there is too much present, the butter becomes rancid. If the butter is washed very clean and all buttermilk taken, this action is delayed, the nutty flavor comes later, and keeping qualities are much improved.

John Gould says that the way to granulate butter is to add about two quarts of water at 62° to an ordinary churning. A spoonful of salt will do no harm. When the cream shows signs of breaking, add a little strong, cold brine; and when the buttermilk shows nicely, add at least two gallons of cold brine to the churn; revolve slowly a few times, and let it stand a few minutes before washing.

Recent tests to show comparative value of sweet and ripened cream in butter-making indicated:

1. Equal keeping qualities.
2. A limited market for sweet-cream butter; in some cases at fancy prices.
3. A yield of three per cent in favor of ripened cream.
4. A prospect that a more thorough understanding of methods of handling sweet cream and the introduction of the extractor may result in extensive and important changes.

The day of the average butter-maker whose ambition ends at the knowledge of the mechanical part of the trade is past, and the future has nothing in store for him better than low wages and unsteady employment. He must understand value of foods, nature of animals, as well as care and handling of milk under various conditions. He must be a man of sufficient tact and address to retain the good-will of patrons while correcting errors. He must be engineer, book-keeper, buyer and salesman. The day of concentration in creamery work is at hand. Competition is close. In the near future only the best will have good places, and the average man must drop out.

At a famous English dairy contest the following scale of points was agreed upon:

One point for every ten days since calving after the first twenty.

One point for each pound of milk per day.

Twenty points for each pound of butter fat.

Four points for each pound of solids other than fat in the milk, deducting ten points in cases where butter-fat amounts to less than three per cent.

Upon the above scale an Aberdeen-Angus cow, although not included in the dairy breeds, not only made the best record among 49 entries, but the best ever made at the show.

THE FIELD.

Advantages of Baling Hay.

J. W. Clark, of Placer county, Cal., writes the *Country Gentleman* as follows:

A few days ago I met two teams—one of four horses, the other with six—with loads of baled hay for Forest Hill, 40 miles distant, in the foothills, and I inquired as to the weight of same. The four-horse load was 50 cwt., or 2½ tons; the six-horse load, 70 cwt., or 3½ tons; both loads in bales of about 200 pounds each. The loads were about six feet higher than the sides of the wagon-boxes, but no wider, in either load. The bales were all of the same size and laid to fit close together and bear the swinging and racking of the rough, narrow mountain roads, without getting out of place or lop-sided, as often happens with unbaled hay on road passing over slanting ground. Indeed, loose or unbaled hay could not be on a wagon on the rough, narrow mountain roads without high, narrow racks, bolted tight to the running-gear.

The only places loose hay can be seen in here is in cocks or winrows before it is heaped or baled. Every day various sized loads of baled hay, from one to two bales on a buckboard to 60 to 70 cwt., are driven into the city, the owners of single horses and buckboards drawing them in small loads of one to four bales as they require renewed supplies from the ranches. In loading small loads, say up to a ton, which may be carried in a good-sized lumber wagon box one man can load the bales easily, and when several tons are put in one load for drawing to mountain towns, no other hand is required, as the teamster loads, the keeper of the hay store shoving the bales to the edge of the platform, which is high enough to load baled hay from. If a wagon or axle breaks on the way, a load of bales can be walled up on the side of any road, in half an hour or less, and covered with a piece of sail cloth, or a stack of bales in the field can be closely laid up and similarly covered.

Of course bales of dry hay will draw dampness from the ground if placed on bare soil; but any danger from such cause is easily prevented by placing a layer of dry straw or old boards under the bales. As to the hay spoiling from dampness in bales, as was alleged two years ago by a correspondent, any damage from such a cause ought to be purely imaginary, as hay can always be dried as much as required for long keeping in California climates. Only yesterday I saw the fourth crop of alfalfa curing in winrows, ready for baling. Alfalfa is generally baled here and keeps well, being used commonly for cow feed, while oat, wheat and barley hay make up the general horse feed, and it is rare to see a damaged bale.

Considering these facts, it seems to me that there is a vast amount of unnecessary labor and cost in making hay-stacks 20 feet high, as done with machine pitchers, horses, hoisting works, rakes, carriers and pulleys, and also with hay-loaders; and if hay is wanted to keep dry in winter or summer on your side of the Sierras, four times as much can be housed or otherwise securely gathered and protected from damage by rain when baled as when stacked loose, and with much less cost of machinery, labor and time. I write with some emphasis on this subject, because I have had 50 years' experience in various modes of making hay, including the old hand methods and the modern use of machinery, and am of opinion that four-ton stacks, the hay drawn around them with a horse-rake and the stacks protected with waterproof caps, form an economical method of stacking hay for baling, as one man can make a three or four ton stack while a boy draws the loose hay to it with a horse-rake, leaving it on any side convenient for pitching on the stack. If the weather is threatening, a small stack can be made in an hour or two without wagons or costly machinery, and if the hay is a little damp, it will sweat in the small stacks without material damage, and get ready for baling. I am credibly informed that building small stacks in meadows distant from the homestead to get the hay slightly sweated is customary in the meadows of the River Severn valley, thus securing the hay in good order as soon as it is ready to stack before drawing it several miles in large loads to the homestead. By stacking in small stacks with few men and little machinery, except horse-rakes, much drawing and time are saved—as experience taught me long ago—and the baling-machine can be moved from one small stack to another while a single load of hay could be drawn and pitched on a large stack. Again, if rain threatens, a small stack can be quickly made or rounded up, and secured with a water-proof cap without damage. Hay can probably be secured in the field as suggested at less than half the cost of putting in large stacks with costly machinery, and the barns or hay-lofts will contain three or four times as much hay in bales as could be put into them loose, making saving in storage space, as well as drawing twice as much at a load in bales without any hay-racks.

Again, the convenience of bales for feeding is worth considering. The hay is taken from the end of the bale with the hands when the baling-wire is cut, in a layer only a few inches thick, the hay left in the bale remaining close as the press left it, and so on till the bale is all used, the wires being easily cut. Use from the bale a few pounds at a time; the hay retains its fresh color and quality far better than when loose.

Furthermore, if other work is pressing, the hay can remain in small stacks till light frosts occur, when the baling can be done without hindering plowing or any other urgent work. Waterproof caps for small stacks or cocks can be obtained at little cost, or made on the farm in a short time. In Iowa, huge hay-stacks 20 feet high are made, requiring four or five men with teams and wagons, or hay-pitching and loading machines, which makes business and profits for machine manufacturers, but whether this expensive system makes much profit for farmers is an open question. Let them figure out the cost of each method and compare.

J. W. CLARKE.

Sorghum Syrup in California.

Mr. James Linforth of San Francisco, agent for sorghum cane machinery, has received the following interesting letter on sorghum syrup manufacture in El Dorado county:

Dear Sir:—We made but little syrup this year, as the cane was badly damaged by the storm of May 15th. The quality this year is far superior to any we have made in previous years. The syrup is the color of gold and this year is free from the wild taste that usually goes with sorghum syrup. The average per acre, in Missouri and other States of the South, is reported at 150 gallons per acre. I have been under the impression that cane here, while producing a clearer and finer article, would not produce as much per acre as in the States, but I have reason to change my mind. One of my neighbors planted a piece of cane 130 feet long by 24 feet wide—total, 3120 square feet. From this he had 20 gallons of extra thick syrup: Had the syrup been made of ordinary thickness there would have been 25 gallons.

We are going to send a specimen of the syrup to the U. S. Agricultural Department, with a challenge open to any country to beat it from sorghum cane. I frequently get letters from people wanting to know if I am "still experimenting in raising cane for syrup." No, I am not experimenting. I am raising what I want, the same as any other crop, and I believe there is no surer crop for this country.

JOHN BLACKISTON.

Arizona Notes.

TEMPE, Nov. 5, 1892.

TO THE EDITOR:—Inasmuch as the RURAL has given its readers an occasional extract from our papers, I have not thought it best to write for some time, lest some one might think we were trying to turn the correspondent's column into an advertisement to gain notoriety.

While some parts of our Territory have suffered from drouth, we of this valley have it about the same in our irrigating canals. Two years ago, when our river deluged our neighboring towns, we had sunshine here all the while. Away off in the eastern part of the Territory, in the White mountains, is our hope of getting water supply. When Jupiter or some other force kicks up a storm there, we of this valley find it out in due time in the swelling of our canals.

Our honey crop was a little short this year, but this was owing to our alfalfa being greatly pastured, as more cattle were crowded in here from the out ranges. Our farmers have been able to get the price of hay (in the stack) up to $5 per ton in October. Some are expecting fancy prices for hay in March, but cattlemen are pushing off their cattle as rapidly as possible, and there is a great deal of hay in our valley at this time.

Our canal schemes have been noticed by the RURAL, and so far as I can observe, even more than has been stated by the RURAL will be brought into completion in the near future. But, O my! what litigation and legislation we will have bye and bye over our canals and water service.

At our district fair (just as in old Sonoma away back in the fifties) we fell out over the racehorse, and the racehorse part of it goes, just the same, but— Well, it ain't my fight, so I can't help the matter out any. I guess our bees may gather honey next year just as well.

Our North and South Railroad is reported as nearing its completion rapidly, and two or three others are being surveyed and talked up. Our real estate agents have a great deal to say about having a shorter haul east to market, but they are quoting geographical miles and not actual freight rates of Arizona.

GEO. KAY MILLER.

HORTICULTURE.

Olive-Growing and the Manufacture of Olive Oil.

An Essay by FRANK A. KIMBALL of National City, San Diego County, California, at the last meeting of the American Pomological Society.

As a matter of convenience the subject will be discussed in what to us seems to be its natural order, viz: The ancient history of this most remarkable as well as most useful tree—manner of distribution and methods of propagation—planting in orchards and mode of cultivation, products of fruit for preserving, known in commerce as "Pickled Olives," and for oil, expressed from the fruit and known as "Olive" or "Sweet Oil," and last but not least, its wood, which in ancient times was considered little less than sacred. This will lead us, later on, to consider the steady advance made in the cultivation of the olive as a productive industry in its relation to the range of latitude and climatic conditions adapted to its profitable cultivation.

We need not inquire in regard to the origin of the olive tree, for the people of western Asia, who wrote our oldest history, found it in vast forests on the mountains; so at this point its written history begins, and here, in all probability, nature concentrated her forces and created the first olive tree.

It was slowly carried by the merchant as he followed or opened the channels of trade; by the emigrant it was carried as one of his choicest treasures, in fact as one of his "household gods;" and with and by him was planted on the verge of civilization, only to be again advanced from the place, where for centuries perhaps it had ministered to the comforts and necessities of those who were again to move forward in the van of civilization.

These certain methods of distribution carried it to southern Europe and northern Africa, and later on to South and North America, by priests of the Catholic church who knew so well its value as a food-producing plant; and its oil furnished an ever ready medicine of such universal application that to be without it was to find themselves handicapped. These Franciscan Fathers founds it to be a most important adjunct in their efforts to hold supreme influence over the wild men whom they sought to raise to the dignity of civilized beings.

In San Diego county, California, and within 20 miles of the extreme southwestern limit of the United States, Father Junipero Serra, the most renowned and honored of all the Franciscan Fathers who came to the western shore of North America during the last century, planted the first olive trees, or possibly olive pits, but more probably cuttings taken from trees which he knew were good for producing both food and medicine; from this plantation, without doubt, all the "Mission" olive orchards have descended, and now, after 122 years have elapsed, the trees of this *old* orchard are infants in age, and a thousand years hence might not have reached their prime, had careless soldiers and vandal stockmen left them undisturbed.

PROPAGATION.

The various methods of propagating the olive are by seed, or more properly "pit;" this can only be done successfully by freeing it from oil, which prevents both air and moisture from penetrating to the kernel. This may be done by a bath of caustic soda, which readily combines with the oil, or by breaking the pits and removing the kernels, which, if carefully handled and properly planted, will readily produce trees—but they will be as various in description as apple trees will be when grown from seed. This is an unsatisfactory process, for only about seven or eight pits in 100 contain kernels, consequently more than nine-tenths of the time required in preparing seed from pits is absolutely wasted.

To produce trees which will bear the desired kind of fruit, take limbs of any size, cut from the trees during the winter months, and, before the new growth starts, cut in pieces six to ten inches long and plant (either in nursery or orchard) in a vertical or oblique position, and nearly or quite cover them with earth, well-packed around the cutting from top to bottom, or the limbs may be laid in trenches (for nursery-planting) and covered about three inches deep. These will send up canes all along the cutting, in some cases not more than six inches apart; after the canes have reached a height of two feet (if at the proper season) remove the earth between the canes and saw the cutting off, giving to each cane a short section of wood, or with a sharp gouge remove the cane with all its roots, which secures an entirely independent tree with a large mass of fibrous roots, and of the variety desired and many years quicker than from "*seed*" to a bearing tree.

The cutting may be allowed to remain in the ground and

the year following another set of canes will be produced from dormant eyes which failed to start the first year, and this process may still be repeated.

With artificial heat it is easy to secure a vast number of trees by taking the growing tips of twigs, three or four inches long, and planting them in moist sand; oftentimes these herbaceous cuttings will produce 90 per cent of trees suitable to plant in nursery. And still another mode; take a gouge and carefully remove the spherical protuberances which are formed either just above or below the collar of large trees. These may be planted in nursery or orchard and will make beautiful trees. Olive trees grown from pits may be changed to any variety desired by grafting or budding, which may be done in many ways, all of which are illustrated in a small pamphlet published by the California State Board of Horticulture, in which are also illustrated all of the most desirable sorts of olives now produced in the State.

PLANTING.

From the nursery where olive trees are generally allowed to stand two years they are planted in orchard at distances varying from 20x20 to 30x30 feet in squares, or on the "triangular" plan with same distances on each angle which largely increases the number of trees to the acre, and properly distributes them over the area planted. The roots of an olive tree should never be allowed to get dry, between the time of digging and planting, and no tree requires greater care in planting.

PRUNING.

When the tree is taken from the nursery the trunk should be cut off to the height determined on for branching, say two feet, and all the lateral branches should be cut back to balance the loss of roots necessarily destroyed in removing the tree. Future pruning may all be done with thumb and finger, or a very small pair of pruning shears. The olive tree should never be allowed to grow tall, there being no compensation for the increased cost of picking the fruit and for thinning out the top to admit air and light.

CULTIVATION.

I need not say to any horticulturist that cultivation cannot be too thorough; good tilth is an exhibition of "Faith and Works" which comes very near being an absolute guaranty of success. But even this will not in *all* places succeed without another artificial help, viz, *water*, for it is the exception and not the rule where olive trees will do their best without irrigation; and wherever nearly perfect conditions do not naturally exist and irrigation is resorted to to establish such conditions, it has become nearly or quite an established fact that for each dollar so expended at least ten dollars may be expected in increased growth and quantity of fruit.

When taken from the nursery (at two years from planting of cutting), planted in orchard and properly cared for, the olive tree should pay all expenses of cultivation the third year. There are instances on record where *cuttings* planted in orchard have produced sufficient fruit the third year to pay all expenses of cultivation for that year, but this is not a safe basis for calculation, for it is only with *large* cuttings, taken from vigorous trees planted in a voluptuous soil and under the most favorable conditions, that such a result may be obtained.

In selecting a location for an olive plantation, great care should be taken to secure a well-drained tract, for there is no one thing which will so militate against success as a close, clayey soil with imperfect drainage.

Exposure also cuts an important figure in the profits to be derived from an olive orchard. A southern exposure hastens maturity of the fruit, and it must always be kept in mind that when the olive approaches ripeness it must be gathered, if first quality of oil is expected; true, the quantity of oil is much less, but the quality is much finer than that pressed from fully-matured fruit.

A northerly exposure will prolong the period of ripening many weeks, so by selecting land having both a northerly and southerly exposure a person, by his own labor, can harvest at least one-half more fruit than if either one of the exposures was selected. It is often said that any kind of soil is good enough for olive trees—and inferentially the poorer the soil the more profitable the crop; if this be so, it is contrary to all other efforts of nature of which I have any knowledge—but it is *not* so. But it *is* a substantial fact, however, that an olive orchard which has long been cropped, poorly cultivated and not fertilized, will make a record of unprofitableness which the owner may not long disregard; in such cases, generous fertilizing and good cultivation will cause a response which cannot be mistaken. Good location and good soil are two elements which will act as large factors in successful olive-growing.

Few, and perhaps none, of these suggestions need be made to the practical horticulturist; but there may be some one before me who has very little knowledge of horticulture, who may desire to plant an olive orchard—to him they may be of service. Nor should I stop here, but should further allude to the peculiar conditions under which we labor in California. As a rule, we do not care to see a drop of rain from the first of May to the first of December. During what is termed the "rainy season," and after any considerable fall of rain, the ground should be thoroughly "cultivated," or plowed and harrowed, and after the "rainy season" is over, the surface of the ground should be well-stirred at least once each month, so that it may be in perfect condition to absorb atmospheric moisture during the "dry season," and be all ready for the first rain of the succeeding "rainy season." Two purposes are thus accomplished; the land is kept in good tilth and no weeds can raise their unsightly and unprofitable heads.

TIMBER.

The first historians, on almost the first page of history, record the value of the olive tree for timber. Are not the trees now growing on the Mount of Olives the same which were there 2000 years ago? And can any one tell who planted them, or how many centuries they had been planted at that date? Were not the doors of the tabernacle of King Solomon's temple made of olive wood? Do we not find dovetailed blocks of olive wood now holding together, as they have done for more than 4000 years, the great blocks of porphyry of which the pyramids were made? Do not the tombs and temples, built "time out of mind," still contain solid and sound olive wood which, during the intervening ages, has resisted the "tooth of time?" To its durability add its beauty, and one can readily understand why dealers in antique furniture place such value on the timber of the olive tree; truly, it is a delight to the cabinet-maker.

AS A FOOD.

The olive, as a food, has a value not usually accorded to it, for it is only immediately around the Mediterranean and Red seas that it is used as such. In the districts named, the olive is picked when fully ripe, dried and eaten with the black bread of the country, and nearly or quite occupying the *place* and fully doing the service of *meat* In certain of the Mediterranean countries the lower classes of the people *may* taste meat 12 times during the year; but it is not *certain* they will, but it *is* certain that many of them consider it an annual luxury. The olive constitutes by far the larger part of their food.

It is quite possible that a majority of persons present are not personally familiar with olive-eating people and cannot fully appreciate its absolute necessity in supplying their daily recurring wants. From the highest to the lowest, all people are included. Only three things are said to be necessary for a Spanish soldier to take with him as a ration on a long and fatiguing march, viz, olives, bread and onions. The olive is a good flesh producer and (if I may be allowed to use a homely expression) has the invaluable quality of "standing by;" the onion is not only a food, but it is a stimulant and fully takes the place of wine. This ration is considered adapted to the soldier, as it contains all the elements required for nourishment.

The olives, to which reference is made, are not the green olives of commerce, such as are seen in every grocery and are found on the tables of every hotel and restaurant, and are almost as indigestible as the cork of the bottle in which they were bought. These unripe, unwholesome things will keep indefinitely and with much less care than the mature olive, but there is no comparison between the two products as food. The olive, properly prepared, will yet be regarded equal in value, pound for pound, with meat and far more healthy, and, from experiments often made, appears to be a natural food for man, for I have never yet seen a child, too young to walk or even stand on its feet, which would not eat ripe pickled olives when placed in its way, nor have I ever seen a child made sick from eating them.

During the early years of olive culture by Americans in California, the fruit was prepared like the ordinary olive of commerce; fruit picked perfectly green, processed to remove its intensely bitter taste, packed in salt brine and in two or three days was ready for the table, and was eaten only as an appetizer or relish. Pickled olives have the peculiar property of removing all taste from the mouth and restoring it as though nothing had been tasted, and are universally used by experts employed to determine the value and quality of teas, wines, etc., and these purposes are invaluable, as no other known substance contains such qualities in equal degree. The preparation of green olives has almost been abandoned in California, as the fruit thus prepared is in no sense a food. Nor should it be forgotten that production of food in one form or another has become a large factor in the world's political economy, and that the nation or country which produces the largest quantity and most comprehensive variety of food has a handicap on all other nations or countries less favored, either by nature's benefactions or the persistent efforts of its people.

From the early planting of the olive in California—prior to the year 1800 and down to 1867—I do not know of a single olive tree having been planted in southern California. From the last date to the present time, large areas have been planted, so that where in 1867 there was one tree in the State there are now a thousand, and the area now ready to be planted is probably nearly equal to that already planted.

The well-known thrift of the "Yankee," which seems to be an inherent virtue in the species, soon discovered to him that there was a great waste of labor and raw material in preparing a substance which had no value as a food, and that the purchaser of it had thrown his money away. Experience soon developed the fact that ripe olives, prepared by the same general process as the green ones, were not only toothsome, but from their intrinsic value as a food product would be a counterbalance to the price of meat. This led to many experiments in their preparation, and the process which has been most generally adopted is as follows:

The olives are carefully picked (and must be handled without being bruised) when quite red and before they begin to turn purple, and immediately *covered* with a solution of concentrated lye, in proportion of two ounces of lye to each gallon of olives, great care being taken that every olive is completely covered. A portion of the solution should be frequently drawn off and poured on top, to keep the solution of equal strength. After 12 hours examine them to see how far the lye has penetrated, and when it has penetrated nearly to the pit (which is easily determined by breaking open some of the olives) draw off the lye and replace with soft water, which may be changed once or twice each day till no trace of lye is left in the olives. This is best determined by testing with litmus paper. Then add salt to taste, provided the olives are to be used immediately; if to be kept for future use the brine must be made of same strength as for salting meat, and when required for use they may be freshened to taste, using cold water for the purpose.

Perfectly ripe olives prepared in same manner are far more delicious, be must be picked and handled with extreme care so that not an olive is bruised, nor will they keep nearly as long as those not so near maturity. During the process of pickling the olives must not be exposed to light or air. It is important that only one size of olives should be processed at the same time, else the smaller ones will be spoiled before the larger ones are "done," and it is absolutely essential that everything used in processing olives should be perfectly "sweet," as any offensive odor will be absorbed and the olives be made not only worthless but positively offensive.

EXPRESSING THE OIL.

The mode of extracting oil from the olive, which was practiced thousands of years ago, still obtains, but with machinery better adapted for economical work, steam being substituted for the labor of men and animals. To be able to obtain the largest quantity of oil possible from the olives, they must be left on the trees till *ripe* and shriveled—but quantity is at the expense of quality. The finest grade of oil can only be obtained by gathering the fruit while it is yet hard, but sufficiently ripe to allow the pit to be squeezed out without carrying any of the flesh with it. Early in the season the olive may become quite black before this condition is reached, but later in the season, when the weather gets cooler, the olive may be "ripe" when perfectly "green."

Immediately after being gathered they are spread, one or two inches deep, on trays or racks, which may be placed one above another, leaving space for circulation of air, great care being exercised to prevent them from heating (in which case the oil is spoiled for table use), and when a sufficient quantity of moisture has been evaporated they are ready for the

CRUSHING MILL,

which, with its appurtenances, must be made of materials which cannot absorb odors—metal and stone, as much as possible, being used and the same care and cleanliness exercised in *making* the oil must be continued till it is in the bottle. After the olives are crushed (which is done under stone or iron rollers that are made to revolve in a large stone or iron basin in which about 350 pounds of olives are placed and which constitutes a "charge") the pulp is placed in a tub of proper size, made of very narrow staves placed a little distance apart and bound with strong steel hoops which are hinged so that on being opened the pomace may be easily removed, and a light pressure brought to bear on it, and oil of first quality, or "Virgin Olive Oil," is produced. The pomace is then removed and recrushed and again subjected to pressure sufficient to secure a second grade of oil. It may be again crushed, at the same time adding hot water to assist in liberating the remainder of the oil, when a still greater pressure is used. This gives an inferior grade, which is used for light or lubrication. There yet remains some oil in the pomace, which may all be utilized by the soapmaker in the manufacture of castile soap. The residuum is applied as a fertilizer.

In the process of pressing the pulp, the fruit juice and oil, with a considerable quantity of pulp, runs from the presses into large tin tanks; the oil gradually rises to the top and is skimmed off and poured into the settling tanks, where it must remain for from 60 to 90 days, when a natural precipitation will have thrown down nearly or quite all foreign matter, and the oil is ready to pass through a filter, which is made by lining a conical bag, made of heavy filtering felt, with several thicknesses of white cotton-batting. It is again filtered through druggists' filtering mats, after which it is ready for bottling. Care for olive oil does not cease when it is transferred from the filter to the bottle. It is exceedingly important that *light* be excluded and that it be stored where an even and reasonably cool temperature is secured, and when offered for sale only "sample" bottles should be shown, and these are *not* to be sold, and a purchaser should decline to take a bottle of oil which has been placed where the sun's rays or even light has been allowed to reach it, and when transferred to the kitchen the bottle should *never* be left uncorked and should be kept in a cool place and in the dark.

REASONS FOR UNIVERSAL CONSUMPTION.

The constant and universal use of olive oil seems in a considerable degree governed or perhaps influenced by latitude, and within certain limits it should supplant all kinds of fats, including butter and lard,—both of which may and probably should be used in the higher latitudes and at high altitudes, but are unquestionably productive of disease in the regions adapted to production of olive oil.

The attention and influence of physicians and political economists should be directed to the general instruction in, and constant use of, olive oil by all classes of people, from the fact of its wonderfully nutritious character, whether taken into the stomach as food, or applied to the surface of the body for the same purpose, and also that it is not only healthy, but at the same time is agreeable to the palate.

History records the fact of the wonderful strength and agility of the soldiers of ancient Rome, with powers of endurence equalled by no people of more northern latitudes. One of the chief causes leading up to this result was the constant use of olive oil and dried or preserved olives.

The dread enemy of English-speaking people is dyspepsia, a disease almost unknown among the people whose diet is largely composed of the products of the olive tree, olives and olive oil.

Inquiry among educated people of Spain, Italy, Greece, France, North Africa, Syria, and in fact of all countries where like conditions exist, will develop the fact that dyspepsia is only known by its name. It goes without saying, among medical men, that oils, particularly of the olive, when properly used, not only do *not* interrupt or impede digestion, but are actual aids in promoting both digestion and assimilation.

In diseases of children, whether it be applied internally or externally, there is no remedy to take the place of olive oil.

Out of 41 cases of yellow fever in Barcelona, where the only remedy was olive oil, only *two patients died.*

For removal of "Gall Stones" it is an absolute specific, a fact which should be and perhaps is known to every physician in the land. The value of the products of the olive tree should be published far more extensively than it is, so that hundreds of thousands of people now crowded together in our large cities may be induced to occupy the millions of acres of land adapted to olive culture now lying idle in the State of California.

THE HOME CIRCLE.

Love's Victory.

When I am dead, dear love, if thou shouldst feel
Thy loneliness too hard a load to bear,
And that another could thy wound anneal
With gentle tenderness and loving care,
My spirit hovering near thee would not chide,
E'en shouldst thou smile on a beloved bride,
When I am dead!

I only ask she be not like to me—
As I was dark, let her be fresh and fair;
Instead of brown locks waving wild and free,
Close to her head coil round the golden hair;
And may she tower stately, grand and tall—
I shall not mind that I was frail and small,
When I am dead!

So that *she* come not nestling to thy side,
Nor climb up to the level of thy heart.
And lavish kisses without stint or pride,
Or beg sweet pity for some pain or smart,
As I was wont; nor Love's expression crave
To be, as I, Love's gladly-fettered slave—
When I am dead!

Nay, love her as thou wilt, and as she will,
With fullest meed, and with a conscience clear,
E'en though thy memory hold my memory still,
In quiet corner garnered, close and dear.
If a true heart should give thee of its best,
As I did once, I shall the happier rest—
When I am dead!

—H. ANNE PATCHETT MARTIN.

An American Hymn.

God save our native land,
And make her strong to stand
For truth and right.
Long may her banner wave,
Flag of the free and brave!
Thou who alone canst save,
Grant her thy might.

Ever from sea to sea
May law and liberty
O'er all prevail.
Where'er the rivers flow,
Where'er the breezes blow,
May love and justice grow,
And never fail.

In living unity
May all her people be
Kept evermore.
From hence on every side
May freedom's swelling tide
Roll grandly, far and wide,
To every shore.

O God! to Thee we raise
Our grateful song of praise
For this glad land.
Thou didst our fathers lead,
Thou wilt their children heed,
Supplying all their need
From Thy full hand.

—JULIUS H. SEELYE.

Ballast.

Written for the RURAL PRESS by MARY E. BAMFORD.

"Take the best of men, you get tired of them sometimes. I expect if I'd had the President, I'd get tired of him sometimes."

Virgie did not answer.

"The woman that gets Dolph," continued her mother, "will have to be holding him back all her life. I wouldn't want to always have to be ballast for a balloon."

"Yes," said Virgie, slowly.

She took the broom and went out to sweep the front steps. Mrs. Twicker, left alone, took soap and water and began to scrub the zinc beneath the stove.

"I don't know so very much about him except what Virgie's told me," soliloquized the woman, "but I can tell something by that. He's one of these sloppy, sweet-appearing men. Most women never have common sense about such. I don't know whether Virgie has or not; but *I* didn't get that kind of a man. I got a man who could earn his living at least."

Mrs. Twicker scrubbed vehemently at a black spot on the zinc.

"Men are kind of undependable," she asserted to herself, her mind still on Dolph's instability. "Men ain't substantial, though there's a difference in them, too. I couldn't have done any better work than to look after pa."

She gazed sorrowfully at her pan of soapsuds. She had thought a great deal of Mr. Twicker, with whom she had lived most happily till his death five years before.

Out of doors, Virgie had swept the steps and stood on the last one, looking over the gate, down the hill. Virgie herself had always had a feeling that Dolph was not a man to take hold of the practical side of life. She had tried to put away that feeling. It was delight enough to be with him, to see him smile. Her heart beat a little faster now as she remembered how he had leaned over the gate and talked the evening before. Dolph could always talk about himself for great lengths of time.

Virgie believed she could earn a living herself. She wondered if it were very hard work for a woman to earn a living for herself and her husband, too.

"Maybe Dolph would suggest that we take boarders and I support us cooking for them," she thought. "That's what that man who was going to marry Fannie Torsney wanted her to do. Fannie said that as soon as he asked her to earn the living for them both, she didn't want to marry him any more. He'd better have kept still till after they were married. He was just as able to work as she was."

Virgie ran into the house, but her questionings and surmisings did not leave her.

Mrs. Twicker was much worried over Dolph and Virgie in these days.

"He smiles a good deal," observed Mrs. Twicker in one of her many moments of reflection on Dolph's character. "You'd think he was real good-natured. But you can't tell. I've seen some of the smilingest kind of dispositions the meanest."

At last, however, Virgie put an end to her mother's fears by dismissing Dolph, who, after a few unsuccessful attempts at reconciliation, consoled himself by paying attention to one of Virgie's former schoolmates.

Virgie had always liked Lida. After having actually decided to give up Dolph, it was easier that Lida should have him than that any one else should. And when the two were married, Dolph really seemed to have some care about providing for Lida, and came down from his visions for a few months at least. After that, the two moved to another part of the city, and Virgie and her mother saw them less and less frequently.

The Twickers had heard nothing from Dolph and Lida for over a year when, one morning, a neighbor called.

"One of the folks you knew's dead," announced Mrs. Winfree. "You heard about her?"

"No," said Mrs. Twicker. "Who is it?"

"My niece told me last night," answered Mrs. Winfree. "It's that Lida that Virgie used to go with so much. I heard it pretty straight. My niece works in the next store to where Lida did, only it's upstairs. Lida was downstairs, where I wouldn't let one of my relatives risk their health, and my niece said she heard yesterday that Lida was dead. She's been sick and hasn't been in the store for four or five days. Lida hasn't. Did you hear what I said, Virgie?"

Virgie had just come in.

"I heard you say something about Lida," she answered.

"She's dead," repeated Mrs. Winfree. "Been working in a store and got pneumonia. My niece told me that Lida worked too hard. I never liked Dolph myself. First time I see him I said, 'He looks as if his name was William Henry.' Flat name, *I* think, William Henry."

Mrs. Winfree departed with decision.

"I'm going to hunt up the place, and find if it's true," determined Mrs. Twicker. "We'll go right off to-day. I guess we can find the house some way."

"I don't believe I want to go," objected Virgie.

"You come right along," commanded her mother. "'Twon't hurt you, and if Lida's alive and sick, some one ought to look after her, and if she's dead, some one ought to go to the funeral."

But it took long searching to find the section of the city outskirts in which Lida and Dolph had lived.

At last the travelers arrived at an uncrowded portion of the suburbs near the water. A little girl came running along the unfrequented road, and Mrs. Twicker asked her the way. The child said her name was "Baby," though she was ten.

"How soft the road is," commented Virgie, thinking compassionately of the white-faced wife who must have traveled it so often and so wearily.

"It bees awful muddy when it rains," explained Baby.

The child pointed toward a little slate-colored house on the low land near the water, and ran away, leaving Virgie and Mrs. Twicker near their destination. The path the two were following seemed to lead to the back of the little house instead of the front. The back door was partly open, and they could see that the room inside was very small. A man was bending over a sewing-machine. He was a tailor, evidently. Two women sat sewing on some heavy, dark-colored goods.

One of the women put down her work, and rose. She was Mrs. Henderson, she said.

"Yes, this 's the place," she acknowledged, "but the funeral isn't till to-morrow. She's laid out in our front room, that side. Did you know him and her?"

"Yes," answered Mrs. Twicker, and Mrs. Henderson went before them toward the front room.

"You want to see her, I suppose?" she said.

It was very dark in the windowless little entry, and the two visitors could at first but dimly see the door that Mrs. Henderson opened before them into the room where Lida lay. Mrs. Henderson drew the sheet from the face of the dead woman, and little by little, as the eyes of the visitors became accustomed to the dusk, they saw how thin and worn the silent sleeper was.

"She used to sew with us and for other folks," observed Mrs. Henderson. "She sewed till she thought she couldn't stand it to set still so many hours a day, and then she went into the store about three months ago, and that was just the end of her. It always seems to me, if you see your husband working hard every day, it makes you feel as if you was goin' to lift and help, too, all you can. But if he's lazy, it's too hard for a woman. That's what ailed her."

She motioned toward the white face in the dusk.

"Didn't he help any?" demanded Mrs Twicker sternly.

"I don't know," responded Mrs. Henderson grimly. "He was always thinking. He'd be off trying to talk politics to somebody, like's not, and he dug all over one yard trying to find some money that he believed an old bachelor buried there once. He never found no money anywhere that *I* know of, only in his wife's purse. He always seemed to think he had a right to go there for it. And he'd be that sweet and smiling and easy-going you'd never have thought he owed a debt. And he didn't. She paid them. He wouldn't be held down to work."

"She looks as if she'd had a hard time," sighed Mrs. Twicker softly.

"She does so," answered the other woman. "The toy-shop was in a basement. No one could help that, and they couldn't help the last rains coming down the stairs from the sidewalk above, till the floor of the basement was all wet and damp. It wasn't a fit place for a woman to be, and Lida caught an awful cold walking on the damp boards of the basement for a day or two, till things were some drier. And she died, and no wonder."

The grim lines about the woman's mouth softened a little as she looked at poor Lida.

"We tried to help her some, but she always seemed to scringe from being helped," added Mrs. Henderson, replacing the sheet.

Virgie and her mother went toward the door, but Mrs. Henderson stopped to pull one of the curtains more closely down.

"If that husband of hers had had a speck of grit, he'd never let her go into that basement to work, well man that he is," stated Mrs. Henderson with accentuated distinctness. But she'd do it, she'd do it. I tell you she never ought to have married him. But I suppose she thought she loved him, and I hain't no doubt she did. But love ain't everything. I remember how folks used to talk when I was young. 'Love's everything,' they'd say. They used to teach that too much, sometimes. If you loved a man, you must marry him anyway, no matter whether he was fit or not. Well, love's a great thing. It's the *greatest* thing. It's miserable to marry without love. It's wicked. But love *ain't* everything. A man ought to be a God-fearing, decent worker, and then if a woman loves him and has to scrimp when she's his wife, it's all right. I was brought up on the scrimp, but it wasn't through shiftlessness."

They had come out of the cold room into the little dark hall, and Mrs. Twicker inquired after Dolph.

"He's around somewhere. He's cried like anything," returned Mrs. Henderson indifferently, "but it's no matter. It's that baby girl of his *I* pity. Men like him always feel awful bad at first. Cry fit to break your heart, if you didn't know their'n would get cured soon enough. Of course he thought a sight of her, but love that will let a woman slave herself to death, and never lift a finger to help, isn't worth much He will find somebody else, I ain't a doubt."

Mrs. Twicker and Virgie rode home on the train. As it began to cross the water, Virgie turned in her seat and looked back. The tide was out, and away over farther yet was the little slate-colored house with its two yellow-curtained windows, behind which Lida lay.

It began to rain toward evening. At home, during supper, Virgie ate her toast and looked at the evening's paper, reading items now and then to her mother. Mrs. Twicker regarded her somewhat anxiously, but Virgie did not voluntarily begin to talk about the visit, and her mother said to herself that she hoped Virgie had some sense.

It rained hard out of doors. The two beside the fire after supper could hear the splashing on the windows.

"I'm glad the house doesn't leak," Mrs. Twicker said comfortably. "'Twon't drip anywhere."

It was nine o'clock before they knew it. The rain was still pouring heavily when Virgie started upstairs to bed.

"I'm coming in a minute," promised Mrs. Twicker. "I want to see to this fire."

Virgie climbed the stairs and went to the bureau in the dark. She lit a candle. Then see stood looking at it and its reflection in the mirror. Something that her mother had once said came back to the girl.

"The ballast gets thrown overboard, always," Virgie thought slowly. "I don't suppose the balloon misses it much. It isn't dragged down any more."

Below stairs, Mrs. Twicker carefully poked the coals through the grate, preparatory to putting the blower on the stove for the night. Mrs. Twicker gave a bright coal a final energetic punch. She was thinking of Lida.

"I'm thankful it wasn't Virgie," she said to herself. "There! I don't believe a man has any business to get married who hasn't any trade, nor any gumption, nor any mind to work. I haven't any great authority for it, but I believe it's the Lord's sentiments as well as mine."

One Woman's Life.

When she was a little girl her mother died. That was the end of love in her life. Her father was a strange, sullen man, who had a quarrel with the universe and its Creator, and had never settled it.

This one shy little girl was all the child that had ever slipped into his life, and her he scarcely noticed except occasionally in reproof.

After her mother's death, the child's life crept along with broken wings, but it did pass somehow, and the little girl was growing into a shy and timid woman, with creeping, apologetic ways, when her father died. She was no more alone than she had been for years, but there was a difference in the loneliness. It is better to have some one who is a care to you than to have no one at all.

She never had a lover. She was neither pretty nor bright, nor vivacious nor clever. She was quite colorless and dreary and monotonous. But she was a woman, and she used to look wistfully at a light-hearted pair of lovers that passed her at night on her way home from work. But it never occurred to her to wish for a lover herself.

With the running years she grew no more faded and colorless and dreary, and perhaps no more hopeless, but she grew older, and the hopelessness of middle life is harder to bear than the hopelessness of youth. It has an element of conviction in it.

Just when the first thought of it came to her she did not know. Perhaps it was the night when, so tired in body and brain that her head reeled and her knees shook under her, she opened the little cupboard at the side of her tiny bed and saw the bottle. The skull and crossbones on the label didn't suggest the pitiful thing they were intended to.

Instead of the horrible leer, the skull seemed to smile a greeting and a friendly invitation. Her hand shook a little as she shoved the bottle impatiently aside in her search for a special one; but her fingers had closed over it for an instant nevertheless.

The next night, when she reached the foot of the four long flights that led the way to her cold room up in the dark, she stood still a minute wondering how she ever could lift herself all that long way, and go on breathing to the top; and the going on with life after she got to the top was just as much of a strugle as the getting there.

"Why must I go on?" she murmured to herself; and then she saw the skull on the label again, smiling at her out of the dark. Again there was no suggestion of terror. Step by step she crept up the long way, pausing at each landing to catch a few minutes of panting, distressed breathing. Then on again until the top was reached and the door that led into the closet-like room. She passed in and turned toward the square hole in the wall and crept close to it. What a substitute for the glowing vitality of a rich, leaping flame! Yet it was all she had ever known in her life.

To-night it refused to warm her, so she moved heavily about the room, still keeping on her wraps. Her supper was in a paper in her hand, and by and by she laid it out upon the table. There was bread and a bit of smoked fish and cheese, which she tried to eat, and then set away with a sigh.

When she opened the cupboard the bottle stood directly before her eyes. "Strange!" she thought, in a dull, disjointed way. "I am sure I set that bottle to one side last night."

She took it out and looked closely at it.

It was half filled with a white liquid. What would not a few drops of it do for her! Here was pain, cold, weariness, misunderstanding, utter isolation. There was—what? But just sleep would be passing sweet.

She set the bottle back again and went back to the hole in the wall and sat down. She leaned her head against the wall and thought a few minutes. "It would be so easy. There is no no one to know," she was saying to herself a few minutes later. "There are only the bottle and I to guess, and I could put the bottle where it would never tell."

She was thinking along quite as if she were planning a delightful journey for some one else. The horrible end of the thing she was doing had no part in her thought. The thought of sin never crept in her mind for an instant, and yet she was a devout soul and had prayed her way clear in every hardship heretofore in her life. There was not one feeling in her soul but that of fascination; but one thought—that of rest. She was drawn on and on.

"First I should wash the label off the bottle and throw the little wet wad out of the window. Then I should pour out a few drops into a cup of water and throw the rest away and wash the bottle clean. I would put my room in order—I should wish to give them as little trouble as possible—then I should undress myself and put on my very best nightdress. Then I should drink the water in the cup and wash that, and put myself in bed quietly and peacefully. In the morning they would come—but no one would guess the truth, so there would be no shock. No one cares enough to make a single inquiry. And there is money enough in my drawer to bury me decently."

That would be all. But not to her. To her it meant blessed rest and peace and perhaps—a mother's love again.

A smile that no one but her mother had ever seen came over her face. She sat still a long time with her head against the cold wall, then rose and walked to her window.

The darkness outside was pierced through and through with the shine of friendly lights and full of the far off hum of human voices and the beat of human feet. Then she rose, the last light of that smile still on her face, and walked quietly toward the cupboard.

Are You Bashful?

The first chief cause of bashfulness consists in a man's attention being directed to himself. The man who is quite at ease in his office—bashfulness is most often an attribute of the male sex—becomes self-conscious in the drawing-room and very shy.

Although capable of joining in the conversation, his witty remark is forestalled, because he is too slow in giving utterance to it, or too timid to hear his own voice. The ordinary action of his brain is inhibited by his self-consciousness.

The second cause is emotion. The extreme bashfulness of many men when they are in love is proverbial, and the surprisingly few married men who suffer from bashfulness is noteworthy.

These causes are, however, usually insufficient to produce bashfulness, but there must be some further necessary condition. Many conditions predispose to it, *e g.*, a highly nervous temperament, deficient moral courage, with which is associated lack of self-assertion. These may be regarded as constitutional causes.

Another predisposing cause is defective education. The general education may have been neglected, or the want of opportunities of acquiring self-confidence in society may have been experienced.

Bashfulness is natural to youth. "Modesty is the graceful, calm virtue of maturity; bashfulness the charm of vivacious youth," and unless a young man takes advantage of opportunities of entering society, he will retain "an air of bashfulness, which is in reality the want of habitual intercourse with the world." (Waverly.)

As long as 1570 Ascham wrote that "if a young gentleman be bashful and soon blush, they call him a babishe and ill-brought-up thing." Deficient social education is therefore a cause of bashfulness.

Habit also predisposes to it. A mere indisposition to exert one's self, indulged in for too long a time, may eventually result in confirmed bashfulness.

This indifference may be due to a want of sympathy with the surroundings, or may have its origin in unalloyed selfishness—for many bashful men are extremely selfish—or may be due to vanity.—Cassell's Magazine.

TEACHER: "Now, Johnny, see if you can't give me an example of a sentence." Johnny: "Ten dollars or ten days."

YOUNG FOLKS' COLUMN.

My Baby Girl and Little Boy Blue.

My table is spread for luncheon—
Whom think you will lunch with me?
Why, my little Boy Blue, whose work is o'er,
Whose sheep lie asleep on the nursery floor—
Whose herd through the newly tasseled corn,
He homeward led by his flute-like horn.
Then he fell asleep in my easy chair,
And dreamed 'twas a haystack full and fair.
But now he's awake and wants his tea;
My little Boy Blue shall lunch with me.

And another, his sister, did you not know
That he had a sister some time ago?
With rosy cheeks and floss-like curls.
To us the dearest, best of girls.
A dainty lass to love and kiss—
To fill our hearts and home with bliss,
Many caresses to her befall,
But little Boy Blue gives most of all.

Ever bonny and winsome, fresh and sweet,
From her shining head to her dimpled feet,
She sits by my side in her tall high chair,
Like a graceful lily, pure and fair—
Yes, Baby Erma, of summers three—
And little Boy Blue shall lunch with me.

Ah! the years may pass as the years before,
And many a guest pass through my door,
And pause at my board for lunch and tea,
But none will be ever so dear to me,
Or fill my life with such joy as you,
My Baby Girl and little Boy Blue.

—Good Housekeeping.

How Joe Earned His New Suit.

"If you're so turrible anxious to have a new suit, why don't you go earn the money for it? I've a dozen uses for every red cent I have." The scolding voice ceased as Aunt Pheezy plunged the big ladle deeper in the boiling soap kettle, sending out a cloud of unsavory steam that filled the old kitchen and drove Joe out in a hurry.

"There is no hope of school for me this winter, that's certain," sighed the lame boy to himself as he glanced down ruefully at his miserable clothes, only held together by the numerous patches.

Like a swarm of tormenting imps his troubles rushed over him. How much he had suffered in the long, long years since his father died, leaving the little cripple dependent on Aunt Pheezy! The loveless life, the skimpy fare, the endless chores, and the old woman's nagging tongue, had been bitter, but this last trial was worst of all. To hear all "the fellows" talking of studying with the new teacher from York, when he must stay away on account of his wretchedly thin clothing, was more than he could bear; and he could not possibly find work now, for the farmers near by did not like to employ a lame boy. Even in summer he had seldom found a chance to earn a quarter weeding or picking fruit.

From force of habit he found himself wandering down the hill to the beach. The sun was setting in a blaze of glory. His last rosy beams danced in a broad pathway across the water and lighted up the picturesque confusion of the old shipyards, the rickety sheds and weather-beaten boats hauled up on the railways for repairs. The carpenters, quick to heed the 6 o'clock whistles, were reaching for the coats and dinner-pails hanging on the low pollard willows. One or two were collecting armfuls of clean bits of pine to kindle the good wife's fire at home. Merry, chaffing remarks passed from one to the other as they disappeared up the well-worn pathway. One tall young man marched gayly, shouting a popular song at the top of his lungs.

Swedish Jan was still busy, outlining a name on the stern of a small sloop. A tiny shaving curled away from the slender tool he held in his hand. As Joe stood watching, the name Eleanor appeared, each letter surrounded by a cleanly cut groove.

"There! that's all ready to be gilded to-morrow," said the man. Turning to replace the tool in his box, he saw Joe at his elbow. "What brings ye here to-night, lad?"

Joe, encouraged by the kindly tone, poured out his troubles and begged for work.

"Nay, laddie, 'tis too hard for ye here," looking pityingly at the crooked little figure. "Stay! I've an idea. Here's the parting-tool ye saw me using just now. Ye're clever at whittling and can draw. Can't ye manage to do a bit of carving that would sell up at the village? I've got an old V tool here that I'll make ye a present of. It's worn down till it's most too short for my big fingers, but it will fit yours first rate. See, you must push it through the wood in this way. let it cut out the pencil mark quite evenly. Here's a smooth, square piece of pine that will just do for a table top. Take it home with you, draw a few ivy leaves on it, cut them out neatly, and bring it back again to me."

"Oh, thank you, Jan; you are the only real friend I have," cried the boy, as he hurried home with his treasures. All that evening, by the light of the kitchen fire, he practiced cutting lines on an old starch-box cover. At first it was difficult to push the parting-tool across the grain; he found it necessary to sharpen the steel often on his little oilstone; but his fingers soon learned the knack of cutting a fine, even line.

The next morning he toiled like a small steam engine, feeding chickens, drawing water and chipping kindling, until Aunt Pheezy's eye could see no task left undone. Then he plucked a branch from the ivy that overran the side of the old house, and betook himself to a sunny corner of the woodshed. Laying the ivy gracefully on his board, he fastened it down flat with a few pins and traced each leaf and stem on the clean, white wood with a lead-pencil. It took him all the rest of the day to cut out his pencil marks, but late in the afternoon he carried it down to Jan.

"Well done, laddie; that looks nice. Now I will mix a little of this walnut stain with turpentine in this old can, and you may paint over all your design inside the lines with this little brush. See; the fine groove that you have cut prevents the brown from spreading beyond it. When you get through stand it up under the shed to dry.

The next day at noontime Joe went again to the shore, for he knew that Jan would then have a few minutes to spare for talking. Mr. Brown, the "boss," as the men called him, never allowed idlers about the yard to hinder his men during working hours.

Jan was eating his dinner, carelessly balancing himself, meanwhile, on the end of the long, horizontal beam to which the horse was attached when it was necessary to draw a vessel out of the water on one of the railways.

"There are two bottles for you, Joe, up yonder on the shelf. Bring them here with your table-top, and I'll show you how to polish it. See, I put just a little of this shellac varnish on this piece of Canton flannel and rub it on well with a circular motion. It absorbs it very fast at first, as this pine is so porous. Now it is getting rather sticky. I must dip my finger in the oil and touch the wood. That will help to spread the varnish smoothly."

"How beautifully it brings out the grain of the wood and the colors!" said Joe, admiringly. "It looks exactly like a wreath of walnut inlaid in the yellow pine."

"Yes, a good bit of what folks call inlaying is done in this same way. Now leave your board to dry until to-morrow where no dust can fall on it, then varnish it two or three times again. There's the whistle! I must get to my work again."

The next morning Joe rubbed his board lightly with sandpaper until it was quite smooth, then gave it three vigorous rubbings with the varnish, touching the surface with oil as it became sticky. He allowed half an hour between each rubbing for the varnish to dry.

When he carried the brightly-polished table-top to show Jan at midday, the man exhibited it to Mr. Brown, telling him at the same time something of the boy's story.

"Needs money, does he? Why, this table will just suit my daughter's parlor. I will give it to her for a birthday present, that is, if you can contrive legs for it in time. Here's a dollar for the lad. Tell him he is welcome to work at the little bench in the shop and he may help himself to anything he can find in the heap of odds and ends in the corner."

Overjoyed at this kind treatment from Mr. Brown, Joe set to work with redoubled ardor. When the table was presented to Miss Brown, she shared her father's interest in the boy, and secured several orders for him among her friends.

The first thing he made was a blotting-book, the covers of which were formed of two pieces of cedar ten inches wide and twelve long. On each he cut three irregular chrysanthemums. After the boards were varnished, he glued to them a piece of light blue felt twenty inches wide and twelve long for a lining, forming a book. Leaves of blotting-paper were then tied in with blue satin ribbon to match, the ribbon ending in a bow at the back. The reddish-brown of the cedar with its dark chrysanthemums formed a pretty contrast to the pale blue. He made several blotters of different designs—two of fine white pine were decorated, one with violets, the other with wild roses. Both were varnished with bleached shellac to keep the wood light in color. One was lined with violet cloth, the other with pink.

Good-natured Jan sawed out a dozen photograph-frames for him one evening. Joe sand-papered them nicely, and decorated them in the same way. These found a ready sale, and Joe earned enough money before school began to buy not only a pretty blue suit, but a heavy overcoat and shoes.

The first day he appeared in them at school was the beginning of a new era for the boy. The eager interest he took in his studies soon attracted the attention of the new teacher, himself a young man just past boyhood and fresh from college. With many a long talk out of school hours, and many an inspiring look, he encouraged the little cripple.

The boy still continued to do his simple carving, for finger-work did not interfere with brain-work, so problems and picture frames, grammar and glove-boxes were finished at the same time in the long winter evenings.

His first bit of decoration was a marvelous tobacco-box for Jan, covered with an ingenious tracery surrounding mermaids, dragons and all sorts of queer beasts, copied from one of Mr. Smithers's books.

The teacher's high opinion of Joe's talent prompted him to send one of the boy's graceful designs—a panel over which trailed a riotous Virginia creeper—to a friend who was engaged in decorating the interior of houses in the city. He employed many skilled workmen in the various branches of his business, and often lamented the necessity of giving the best work into the hands of foreigners.

"Why cannot some of our bright American boys perfect themselves in a trade as these Italians and Frenchmen do?" he would often say. "Here's our good gold going into their pockets, while our young men are half-starving themselves behind counters in order that they may be dressed up like gentlemen, with nice, white hands."

In this strain he wrote to Mr. Smithers, offering at the same time to give Joe a year's course at a school for manual training if his health permitted. So it came to pass that when the teacher departed for his city home Joe went with him. Aunt Pheezy, when it was revealed to her that she was about to lose her willing little slave, was full of doleful prophecies. Even Mr. Smithers felt many misgivings as to the boy's powers of endurance, but, to every one's surprise, he soon began to grow stronger. Newly roused ambition whispered to him that even a little cripple might do something to make the world richer and more beautiful. He has now been working busily for many months at the training school. His lameness will not allow of his undertaking all of the branches, but he excels in designing, modeling and his favorite wood-carving. Visitors to the school look with admiration at the rich garlands, the birds and cherubic faces which grow under his small, but skillful fingers. His keen-edged chisel often rests a moment as he dreams of the happy time when, his course finished, he will be free to follow his own fancy and produce wonderful pieces of furniture and charming panelings and balustrades rivaling the masterpieces treasured in European palaces.—Kate Cotheal Budd, in Harper's Young People.

LITTLE MABEL: "If you don't stop I'll tell mamma and she'll tell papa, and then papa will whip you." Little Johnny: "Then I'll cry, and then grandma will give me some candy, and I won't give you any."

JOHNNY BELLOWS: "Papa, buy me a dog, won't you?" Papa: "Perhaps." "Do please, papa. I've got a can and string."

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AGRICULTURAL NOTES.

CALIFORNIA.

Butte.

QUANTITY OF ORANGES.—Oroville *Register:* We have been trying to get an estimate concerning the quantity of oranges that will be marketed in this vicinity this winter. W. A. Rogers, who has grown oranges for many years in southern California and here for several years, estimates that the four-year-old budded trees will average ten oranges each. This will give 1000 oranges per acre. In Thermalito, outside of the Citrus Association grove, he estimates 70 acres, or 70,000 oranges, which will be about one and two-thirds of a carload. Henry Bird will have another hundred boxes, making in all two carloads outside of the oranges from the Infirmary and the Citrus Association, which will amount to three carloads more, making five in all. We interviewed half a dozen or more Palermo growers and estimate for that colony between five and six carloads. Wm. Dunstone, of Wyandotte, has 30 seedling trees, and from these he picked last year 10,000 oranges, and will gather more this year. When we add the oranges of Gardella, Seconi and those produced in Oroville, to those raised in the colonies, we ought to have fully 12 carloads in this section.

THE TURKEY CROP.—Gridley *Herald:* The past season has been extremely unfavorable for turkey-raising, and the result is a scarcity of that bird in comparison to previous seasons, and the outlook bespeaks good prices. Representatives of commission houses in San Francisco visited this section this week seeking turkeys for holiday trade, and they report a scarcity of that fowl in all parts of the State over which they have traveled. In the region around the Sutter Buttes, where many turkeys are raised each year and large bands roam hills and dales, there is this season one-third of the usual number. The insect crop also was scarce, and the poor turkeys suffered in consequence, while disease thinned their broods. In Tulare and adjacent counties the crop is about one-third, while in Tehama and Butte one-half a crop is reported. Some few bands of 1000 and over were seen in the northern part of the State, and around Sites, Colusa county, and vicinity large numbers were found; but, as a whole, the turkey crop is small and prices should be good, unless Eastern shipments flood our markets, and the World's Fair at Chicago will necessitate a vastly increased number there, so it appears as if the markets would not be overstocked.

Orange.

CITRUS FRUITS.—Santa Ana *Blade:* Citrus fruits require a great deal more attention than any other fruit grown in southern California, but in return are the most profitable. In the cultivation and production of the orange the first consideration is the proper conditions. It is time and money thrown away to plant an orange orchard in a locality where the soil is unsuited to its growth, or the land too damp or too sandy. An orange orchard with the proper conditions and at an age of bearing is a source of revenue for life to its owner. The orange-tree is the longest-lived fruit-tree known. It is reported to have attained the age of 200 years, and at the old Missions of southern California there are trees that have borne fruit for nearly a hundred years. No fruit-tree will grow and produce fruit so well under rough treatment. An orchard properly cared for will produce a profitable crop the fourth year from the bud, and from that time on increases in its yield of fruit. The early growth of the orange is very rapid, which continues until the tree is 10 or 12 years old. There are orange orchards in the Santa Ana valley, ranging in size from five to 20 acres, ten years old, that yield an immensely profitable income to the owners. This valley claims some of the finest orange orchards in the State, but, as before stated, to succeed in producing this valuable fruit, the proper conditions must be had.

Humboldt.

THE PEA CROP.—W. Sutherland, of Alton, in Eureka *Watchman:* Have found peas to be one of my most profitable crops. In December and January I begin my preparation by plowing my ground. Break it again in March. Sow broadcast from first of May to June and plow in about four inches in depth. It generally pays to raise and thresh, as they produce from 1½ to 2 tons of peas to the acre, worth from $20 to $25 per ton. Usually it pays better to feed to hogs than to sell. As the first sowing begins to ripen, fence and turn the hogs in. When this portion of the field is well-eaten, I change them to the next sowing. It is difficult to get the hogs fat enough in the field for good, heavy bacon, therefore, to obtain this result, I gather peas and finish feeding in pens. Green peas are also a most excellent feed to continue a flow of milk in cows.

NEW CREAMERIES.—Eureka *Standard:* C F. Bunker says that the Diamond Springs Creamery at Swauger's station will be ready for business on Feb. 1st instead of April 1st, as has been stated. The main building will be 48x72 feet in size and two stories high. The power-room will be 20x30 feet. The lower floors and basements will be of solid concrete and the whole building will be put upon the latest and best designs and will be the largest and best in the State. The machinery will all be of the latest and best patents and in fact nothing will be omitted which will add to the efficacy and cleanliness of the establishment. One great advantage in the location chosen is the unlimited supply of pure, cold water from the springs. The creamery will turn out cheese, as well as butter, thus utilizing the milk after the cream is extracted from it. This will effect a great saving, as the profit in cheese will be much larger than the profit in raising pork. The upper floor will be used as a curing-room for the cheese. The creamery will start in business with the milk from 2000 cows, amounting to 20 tons per day. This may not be the case for the first week, but that amount will be coming in daily shortly after work begins. As is well-known, creamery butter commands the top price in the San Francisco market, and this county's product takes the lead. This is the only section in the State or the country where creameries run the year round. When other States are frozen up in winter, our cows are at their best—up to their hocks in the rich, luscious grasses of evergreen pastures. When other counties of this State are dried up and the cows must be fed hay or grain, our cows have the rich grasses, nourished and kept green by the fogs and mists of old ocean. Every creamery erected adds to the wealth of our farmers, and that this county will erect many more in the next few years is assured by the success of those already running. The farmers of the island are to meet and organize a company to erect a creamery on the plans of the Diamond Springs establishment. As a source of wealth, creameries are the farmers' friends and many farms in this county will be given up to the feeding of cows, and the creamery will be the "goose of golden eggs" which our dairymen will take good care not to kill.

San Bernardino.

GRAPE JUICE.—Redlands *Citrograph:* The Stillman ranch has condensed the juice from 70 tons of grapes at its winery this year, securing a product of four carloads, which has been shipped East. The juice is boiled and treated chemically to keep it from fermenting. It is used as fruit juice for flavoring extracts and communion purposes. There is a car of raisins being packed at the ranch for shipment, and probably ten cars of raisins and dried grapes will be shipped before the season is over. The yield this year is the largest ever secured on this ranch. They are realizing a fancy price, nearly seven cents a pound, for their raisins, which are of a superior quality.

Santa Clara.

A SOURCE OF REVENUE FOR WINE-MAKERS.—S. J. *Mercury:* The vineyardist can come nearer consuming his entire product than any other class of men who depend upon the soil for a livelihood, or at least such has been his experience in Santa Clara county for the past two seasons, since the establishment of the California Cream of Tartar Works. He not only expresses the juice from his grapes for the various varieties of wines which make this valley famous, but he even sells the stems, seeds and other refuse for the manufacture of cream of tartar, receiving good money for what he formerly threw away—in fact for what he always had to pay out money to have carried away from the premises. The business has become a most important addition to the industries of the county, as, besides furnishing a market for the pomace from the wineries, which formerly went to waste, it disburses over $20,000 annually in this city. The price paid for the pomace is $1.50 per ton, and good wages are paid to the 30 or more men who are employed continuously during the season, which extends from October to March. The original cost of the plant was about $10,000, but extensive additions have been made during the past season, amounting to $7000, and the distillation of alcohol has been added to the cream of tartar business. Mr. De Latour kindly showed a *Mercury* representative through the works and explained the simple process of converting grape pomace into cream of tartar. The pomace is first boiled in tanks on the upper floor, then lowered into a press on the second floor. Here the liquor is pressed out and run into large copper tanks, where it is crystallized by cooling and becomes crude cream of tartar. Very little machinery is required for these operations, and the odor about the works is only such as is incidental to any winery. Physicians who examined the works shortly after their establishment declared the business a healthy one, and hoped that it would prove profitable to its owners, as it is a material benefit to this city and county.

Solano.

FARM AND LEVEE WORK.—Barnhardt Cor. Dixon *Tribune:* Since half the teams left for San Joaquin time have been a little dull here, but the work of preparing the ground for next season's crop continues steadily. We will finish about Thursday, when we will have 2000 acres in grain, leaving 1000 acres to be summer-fallowed. As soon as the farmwork is finished for the season, work will again begin on the levees. Two scrapers have been at work continuously, and when the remainder are started, an immense amount of work will be accomplished before the rains set in.

Sonoma.

FARM NOTES.—W. H. Murray, Santa Rosa, Nov. 8, writes: I. C. Peterson, hop-grower on the Santa Rosa creek, harvested 12 tons of hops from his 15-acre farm. One farmer says he has made as high as $100 per acre from pumpkins, but this year he will not get over $60. Orchardists plant pumpkins between trees in their young orchards. All have hogs to feed the surplus to. Wine crushing is going on quite extensively. The roads are lined with wagons hauling to the wineries.

Stanislaus.

YOSEMITE FRUIT FARM.—Oakdale *Leader:* There is an orchard near here which has just recently claimed the attention of horticulturists—the Yosemite orchard. Very little attention has heretofore been extended to this place for the reason that only a year ago it had only a few acres in bearing trees, and on the south of these there was a vast stretch of level land extending along the river, so thickly covered with sunflowers that the orchard was almost inaccessible. The farm consists of 235 acres of beautiful bottom land, situated in a romantic spot on the north bank of the Stanislaus river about a mile direct from Oakdale. It was formerly owned by a man by the name of Campodonica. He came into possession of the place about six years ago, and immediately after his purchase he sorely regretted his bargain and offered to dispose of it at exactly the same price he paid for it. Being unsuccessful, he went to work and set out about 15 acres in fruit trees in a low basin which was many years ago the bed of the Stanislaus river. The trees prospered and are to-day healthy and productive. About a year ago W. G. Williams and H. G. Howell, two experienced men from San Francisco, purchased the place and set about to transform the sunflower patch into a modern fruit farm, and how well they have thus far succeeded may be seen by a visit to the place. The sunflowers were cleared away and in their stead now stands a beautiful young orchard of about 100 acres, in trees all set out last March. The growth of the trees has been marvelous, some of which have attained a height of seven feet. The varieties set out last spring are principally Crawford, Muir, Salway and McDevitt peaches; Tragedy prunes, and French apricots. Besides these there are about 12 acres of four and six-year old trees and vines which bear heavily. From these trees Mr. Howell shipped five carloads of fruit this season. Probably next year the owner will erect a drying-house and cannery.

Sutter.

CLEANING WHEAT.—Yuba City *Farmer:* The Best Bros. have been utilizing their steam traction engine for stationary purposes, and this fall cleaned and bluestoned all their seed wheat by power from the same. This method was a great labor-saving device and about 500 sacks per day could be cleaned and run through the bluestoner.

NURSERY STOCK IN DEMAND.—*Farmer:* The nurseries in this county have already contracted for the sale of the greater portion of their stock, and the demand seems to be brisk. The principal varieties of trees in demand are peach, plum and apricot. Last season the apricot was rather off and the pear prominent, but the demand is reversed this season. Peach being the great fruit of this valley, there is always a large amount of planting done in that fruit. There is also a rush for almonds and a favorable demand for some varieties of apples and plums.

Yuba.

WINE-GRAPES USED.—Sutter Co. *Farmer:* Over 2000 tons of grapes have been used at the Marysville winery this season, which represents 200,000 gallons of wines and brandies.

NEVADA.

CATTLE NOTES.—Reno *Gazette:* G. S. Pyles shipped twelve cars of cattle Nov. 2d from Shoshone, Nev., to S. Silverberg, San Francisco, and E. Odell shipped five cars of cattle from Elko consigned to Grayson, Owen & Co., stockyards. Oct. 29th, Miller & Lux made a shipment of nine carloads of cattle, purchased in Fish Lake valley, from Basalt station to Wabuska. They will ship about 30 carloads more next week. These cattle will be fattened in Mason Valley.

The *New Era*, Lovelock, says: D. C. Wheeler is to feed at least 5000 head of sheep on the Marker farm, and may possibly increase the number to 10,000. Miller & Lux have just shipped from Winnemucca 1300 head of cattle, and have en route to the same shipping-point three bands, numbering 1600 head—a total of 2900. The Arizona cattle shipped to the Dunphy range in the eastern part of the State a little over a year ago, are sleek and fat, and from emaciated little runts have developed into fine beef cattle of nearly the size of our native steers. The importing of these animals at a cost of $13 to $15 per head must be a paying undertaking.

Virginia *Enterprise*, Nov. 10: F. E. Cook, foreman for the Sutherland Land and Cattle Co., was in from Willow Creek the first of the week. He says his company is receiving 3000 head of Arizona cattle; Land and Bruce will pasture 3000 head of Arizona steers on the Meacham ranch near Humboldt House; and Col. Hardin has 2000 head en route to Winnemucca. Five trainloads of the stock have passed here since Sunday.

WASHINGTON.

CRANBERRY CULTURE.—Portland (Or.), Nov. 3: Pacific county cranberries are beginning to be an important crop. Last year, 2000 barrels were marketed, valued at $16,000, and this season the crop will be much larger. The berries are equal in quality to the Cape Cod product. The owners of the marsh live in Oakland, Cal., and have been cultivating the berry in Pacific county for over ten years.

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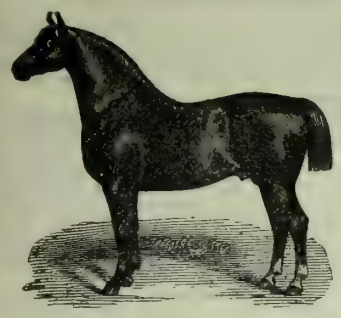

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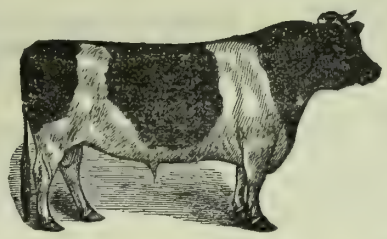

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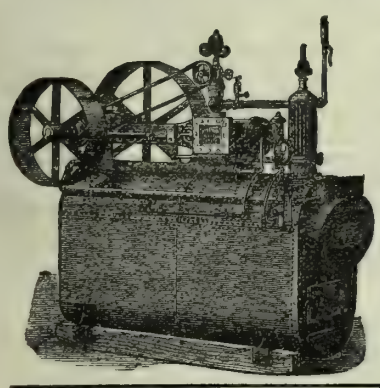

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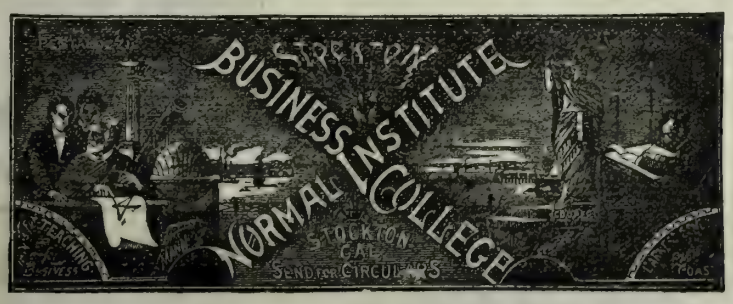

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We sell the **Highest Grade of Grass and Clover Seeds that is offered in this country.** The difference in price between choice, clean seed and second or third quality is from one to two cents per pound. **Be sure and get in our samples and prices before you buy elsewhere.** We are always in the market to buy Alfalfa, Clover and Timothy Seeds.

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The New Yellow Freestone Peach.

FIRST AND BEST OF EARLY YELLOW PEACHES.

RIPENS IMMEDIATELY AFTER THE ALEXANDER (White Cling), which is the earliest peach in market.
Fruit is round, of medium size, **VERY HIGHLY COLORED**, flesh firm and sweet.
THIS PEACH HAS BEEN SUCCESSFULLY SHIPPED EAST FOR FIVE YEARS and is no new untried variety.
Tree healthy, strong grower, and heavy bearer, never having missed a crop.
A limited number of yearling trees for sale this season. Apply early before stock is exhausted.

GIANT OAK FRUIT CO.,
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Tulare County customers can obtain stock from above Company at Farmersville, Tulare Co.

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For the season of 1892-93 we are prepared to furnish a complete line of **Fruit** and **Ornamental Trees, Vines, Figs, Small Fruits,** etc., on short notice and at reasonable living prices. Our stock is free from insect pests, and for strength and health of root growth is not excelled, as we give this special attention.

Nurseries are at Acampo on Stockton R. R., and we have an office and tree yard in Sacramento from the 1st of December to the 15th of April. **VAN GELDER & WYLIE, Prop's,**

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VARIETIES FOR OIL—Razza, Grossaia, Rossalina, Bellmonte, Olivastra, Leccino, Piengente, Morinello, Uvaria, Corregiola, Infrantoia, Rubra, Atrovialacea, True Picholine.

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PRICE, 50 Cts. Each, $40 per 100, $350 per $1000; Ascolana, $1 each.

Terms of sale, Cash on delivery at the railroad station. Time for transplanting, January and February. Trees offered for sale are two years old, propagated from imported stocks.

Seeds, Plants, Etc., Continued on Page 435

PATRONS OF HUSBANDRY.

The Evolution of the Grange.

The Grange in its incipiency was a child of necessity. The organization, in its now mature age, is none the less needed by the farming community than it was in the beginning. It has become one of the most useful institutions in the land, and its influence for good is felt wherever the flag of the Union floats. It is not a political machine, neither is it a religious institution; yet it exerts a powerful and healthy influence in both directions.

The necessity for some such organization had long been felt, and some crude efforts, on a limited scale, had been made to meet the want; but not until what is now known as the Grange took form and shape did the farmers of the land feel assured that their great want had materialized. When they became assured of that fact, they rallied under its banner with much enthusiasm. But with some, the expectations of great and immediate results were not realized. Many that were too enthusiastic, over-sanguine and selfish withal—unreasonable persons who expected through the Grange to accomplish business impossibilities—became dissatisfied and gradually dropped out; but their places were soon filled by more reasonable and more substantial members. With such the organization has moved along quietly, building firmly as it grew, until it has become a giant in the land, with a history and with an influence that is felt throughout all our industrial, social and political relations.

The Grange has always been progressive in character and potential in energy. It has been gradually evolved from the needs of the times and from the hearts of honest men. Those men have built well—better, indeed, than they knew—as the noble fabric which they have erected most amply proves.

For many centuries, other callings have had organizations devoted to their special interests. The farmers, though last to move, have made rapid strides. Their leaders have been practical and sagacious. They have demanded nothing unreasonable, nothing but what should commend itself to all right-minded men as proper and practical steps in aid of a great industry.

The Grange will be in the future, as it has been in the past, ever ready to espouse the right and oppose the wrong. It will ever be found on the side of progress and opposed to sloth and delay; with intelligence as against ignorance; with the honest and against the dishonest.

The work of the Grange has but just commenced. There are possibilities in the future, which will be evolved as broader conceptions of the economies and true relationships of individuals and industries are better understood. The conditions that surround us afford broad fields of labor and demand that every man and every woman should give the best possible effort to advance and elevate the Order. Let the work go on. Let our numbers be increased. Let every officer and every member of the Grange do his or her part with increased energy and enthusiasm.

The Grange Thanksgiving.

The Puritan Thanksgiving, now recognized as national both as a religious festival and a family reunion, is one of those institutions that has been potent in fostering the love of home and of country, and developing a high standard of citizenship.

As a nonpartisan and nonsectarian institution there are many communities where the Grange best represents the home. Its social features can well be exemplified to the community by an appropriate address, to be followed by literary and musical exercises and by customary dinner and social diversions to suit the company. Invited guests would feel themselves honored upon such an occasion.

Where church services were held these might follow, and where they were not, such exercises could take their place.

Most of our committees differ too widely in opinion to unite in the promotion of any creed. In the Grange, Protestant and Catholic, Democrat and Republican, Jew and Gentile, doubter and devotee, can unite in that love to the common Father which shines forth in charity to our brother man. We stand upon a wide platform, and such a one needed to harmonize the good and repress evil and selfishness.

In those times that tried men's souls, when heavy burdens and grievous afflictions darkened the past, and terror and uncertainty hung like clouds over the future, we found many things to be thankful for, and in the presence of the Father of mercies, we consecrated ourselves anew each year to the cause that was so near our hearts. Shall we be less grateful in this the hour of prosperity?

Faded uniforms of blue and gray awaken distant memories of heroic sacrifices and desperate struggles between those who are brothers now and rivals in devotion to the one flag. Factories are busy; farms productive; inventions the wonder of the world, and our flag never protected its citizens as it does to-day.

Our boundless resources, commanding position, and reputation for valor and loyalty, give to us the safety from assault that European nations seek in vain from armies that drain the lifeblood of the people.

In addition to many national blessings, each State, community and Grange has special cause for gratitude. It makes us better to think and speak of such things.

Let us make it an annual custom of the Order to exemplify to our friends and neighbors on this day the social features of the Grange.

A Visit to Danville Grange.

Last Saturday the representative of the RURAL who attended Danville Grange was greatly interested in a very animated discussion of the Constitutional amendments.

There were more than 20 in attendance, many of whom helped to build their fine hall and have been constant workers since the Grange movement first began in California. They have not grown careless regarding forms nor lost their interest in the proceedings. Perhaps the permanency of this Grange may be partly accounted for by the text which says, "Where the treasure is, there will the heart be also."

Almost their first move was to build a fine, large hall, by private subscription, which has been headquarters for everything of a social nature ever since. There are 80 paying members on the roll.

Near the close of the session a short time was devoted to discussion of more systematic educational works, calculated to interest the young by Chatauqua methods and the community in general by farm institute work. These subjects will come up for more extended discussion at next meeting. Chatauqua methods will enable such as desire to study at home to avail themselves of the experience and guidance of those who make a specialty of the study that they wish to pursue. All feel that it is very desirable to interest the young.

A Chatauqua class where they could meet under direction of a competent leader every two weeks for examination of work, comparison of specimens collected, and plans for work of next meeting, would seem to promise great usefulness. Bro. Burgess, the pastor of the Presbyterian church and owner of a very fine fruit ranch, showed considerable interest in this plan, and we hope that he may be able to organize a class of six or eight to pursue some such study as entomology.

The Odd Fellows have lately had a very successful public meeting, addressed by W. H. Barnes, and members of the Grange seem to recognize the wisdom of their methods.

The farm institute movement may be made to effect, in a similar manner, the interests of the Grange. Let a topic of present interest be chosen; speakers of reputation in that specialty invited; and those who have been successful in the community asked to prepare themselves to lead the discussion on the various topics. Advertise and prepare for the meeting as for a circus or fair; and it will act upon interests of the Order as a public meeting of the Grange.

While both universities have shown the utmost liberality in cooperating with this movement, they realize that it is easier to lead a horse to water than to make him drink, and they heartily welcome such demands for work in this line as come from the people, accompanied by exertion on their part to make it successful.

Prof. E. J. Wickson, of Berkeley, will assist in arrangement of program, securing speakers, etc., in behalf of State University, which assigned the care of that work to him on request of the State Grange.

It was expected and desired that subordinate Granges would assume the work of local organization, drawing out audiences, taking part in discussions, etc. In view of its age and standing as a social and educational Order, it was not expected that they would allow so much younger an institution as the Alliance to be more zealous or efficient in this good work.

Several of the members of Danville Grange have had experience at the State capitol, and they are very well posted on politics.

In lengthy interviews after the session, one brother called attention to all the failures resulting from Grange enterprises, and figured up how much better some other course might have been, while another dwelt upon the substantial benefits realized, but often forgotten. Both are earnest advocates of the principles of the Order and honestly zealous for the cause, although they propose to differ wherever there is room for an argument. Perhaps both might agree that the cause will be best promoted by renewed activity along the social and educational lines where it has proven most successful.

It seems that there is room for some better system of securing that hearty cooperation between State and subordinate Granges that is so desirable for the prosperity of both.

The cordial welcome and hospitality by which members of the Order meet as strangers and part as friends endear one to a society that we all love because it makes men better.

From the State Lecturer.

LODI, Nov. 13, 1892.

EDITOR GRANGE DEPARTMENT: — Our election has just passed and the people have made their choice for President for the succeeding four years, and we hope for the fulfillment of the promise of a new era, and of better times for all, and the producers in particular. We, as Patrons, should now begin to look around us in our several subordinate Granges for the best one for our leader the coming year as master and secretary, and, not least by any means, the lecturer, the better to carry out the recommendations of the lecturer of the National Grange, and, if we do, I am sure there will be a large increase of the roll of each subordinate Grange the coming year.

We have had a trial of the reform ballot law, and it has proved a reform and a good law. The action of the Supreme Court concerning the form of the ballot was a commendable act. I did not see the boss marching his subjects up to the ballot-box; quite a change from former elections. There was only one rejected ballot in the precinct where I voted in a total poll of 198 votes; therefore the argument of many journals heretofore, that half of the voters would or could not cast a ballot under this system correctly, and that they would lose their votes, is entirely refuted. But I find there are a few changes that it seems to me are desirable and would be beneficial.

First, in the country and where a municipal election is not held at the same time, seven persons are sufficient for an election board; second, the Story count is not applicable since the Supreme Court decision; and third, making the duties of the election board more explicit. But in the main it is a good ballot system. Fraternally,

J. D. HUFFMAN, L.

The Secretary's Column.

By A. T. DEWEY, Secretary State Grange of California.

FOR FREE MAIL DELIVERY.—The Legislative Committee of the State Grange to whom was referred portions of the Worthy Master's address, supported his recommendations and its report was adopted, containing the following: In that portion referring to legislation we fully concur in the suggestions of the W. M. that the chief reason for our failure in some instances, in legislation sought is because farmers choose some one not of their own or kindred calling to represent them.

Under the head of National Grange, he speaks feelingly and truthfully of the important work done by that body in supporting and upholding the dignity and influence of the Order, and of the preparations made for establishing headquarters of our Order at the World's Fair at Chicago in 1893.

In the matter of free rural mail delivery your committee fully concurs in the sentiments of the Worthy Master, and believes if an earnest effort should be made on the part of the members of this Order in conjunction with the known endeavors of the Postmaster General in this direction, we can secure through Congressional action at the next session of that body, authority for undertaking at least a partial system of this kind, looking for its general adoption ultimately.

ELECTION OF OFFICERS.

The Constitution provides that the officers of subordinate Granges shall be elected at the first regular meeting in December, It is, therefore, time that every good Patron should consider the subject well as to who can best serve the cause in the different offices of the Grange. Every one is important in its special sphere. Try to get the right persons in the right places. First of all, as far as possible, use diligence to secure full meetings from now on, until the all-important duty of election of officers is performed. Patrons, if you love the Order, if you desire to be useful to the Order, or even loyal to our noble fraternity, attend your meetings and lose no opportunity in getting the best leaders to the front. The services of every true Patron are needed to forward, or even maintain, the already important position the Order now holds.

THIS is one of the best seasons of the year to enliven up the interest of lukewarm Granges and to put forth efforts to revive dormant Granges. Let the members of Granges that are thrifty reach out a helping hand to any faltering neighbors. A little neighborly help in that way often does an immense amount of good.

DECEMBER 4TH should be remembered and celebrated by every Grange as the 22d birthday of the Order. Wherever convenient, let several Granges join in commemorating that good day and make it a happy and inspiring one for the future usefulness of our Order.

AMENDMENT TO CONSTITUTION.

It was voted at the last State Grange that the following proposed amendment, by J. D. Huffman, W. L., be immediately submitted for consideration by subordinate Granges, final action to be had at the next session of the State Grange:

That Art. II, Sec. 1, of the S. G. Constitution be amended to read as follows: The membership of the State Grange shall consist of masters of the subordinate Granges and their wives, if matrons, and where the wife is the master of a subordinate Grange, her husband, if a fourth-degree member in good standing, shall be a voting member in the State Grange. Past masters and their wives, when matrons, are honorary members and are eligible to hold office, but not entitled to vote.

Another proposed amendment, in order to make further provision against the possible abridgment of or misunderstanding as to representation of subordinate Granges, namely: 2d. Proposed Amendment. To insert in Art. II, Section 1, of the Constitution of the S. G., next preceding the words "Past Masters," the following: Two alternates, termed first and second alternates, shall be elected by ballot by each subordinate Grange during the two months preceding the annual session of the State Grange, and shall act respectively as numbered, for the master and wife or husband of the master if absent, or in lieu of the wife or husband if the master has no wife nor husband who is a fourth-degree member.

FRATERNAL ACTION.

Sec'y Geo. Harris, of Sebastopol Grange, writes, Nov. 10th: "Our Grange is fairly prosperous; a class of four is to join at our next meeting." He also incloses the following, dated Nov. 5th, which tenders Petaluma Grange a hearty support;

Resolved, That Sebastopol Grange will, in such ways as we can, assist Petaluma Grange—in case the next session of California State Grange shall be held at Petaluma—in entertaining the same.

NOTE FROM SACRAMENTO GRANGE.—Sacramento Grange, No. 12, will celebrate anniversary day on Dec. 3d in an appropriate manner. The resolutions in favor of State school-books, and of the amendment of the Civil Code in relation to community property were unanimously adopted Nov. 12th. The petitions accompanying the latter resolution, a copy of which is enclosed, are being promptly circulated by the Woman's Work committee.—H. L. J.

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NICKLES

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Will Take Care of Themselves.

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You will be many Dollars ahead at the end of the year.

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INFORMATION FOR SETTLERS!

The members of the Kern County Land Company have a national reputation for wealth, business and financial ability. These facts set the matter of reliability at rest. The company's capital stock is $10,000,000.

They have 400,000 acres of arable, irrigable lands upon which the sun shines almost constantly; and their enormous irrigation system renders them independent of the annual rainfall.

A clear title; rotation, variety and certainty of crops; easy terms; availability to persons in moderate circumstances; ground ready for the plow—no stones nor thistles; good society; schools; churches, etc., are a few notable attractions of this region of country.

Kern is the largest county in the San Joaquin Valley. It has the finest climate for curing and drying fruits, etc.

The 400,000-acre territory of the Kern County Land Company is the pick of the county.

Its area is 5,184,000 acres.

Has the largest irrigation system in America.

The home of the peach, French prune, pear and raisin grape.

Planting and harvesting can be carried on every month in the year.

No rocks, hills or stumps on the land.

A failure of crops is unknown on irrigated lands.

Kern county fruits take the first prize at the State Fair.

Land can be made to pay for itself in less than three years.

Grows more alfalfa than any other county in California.

The advantages of good soil and plenty of sun, which occur in the Kern Valley, would have been of little avail but for the third and all-important one of an abundance of water from never-failing sources.

Through 300 miles of main canals, and 1,100 miles of laterals, the great Kern river furnishes enough moisture to slake the thirst of the 400,000 acres already referred to.

Drought is out of the question.

The system has been constructed in the most careful and scientific manner. Some of the canals are 125 feet wide and six feet deep.

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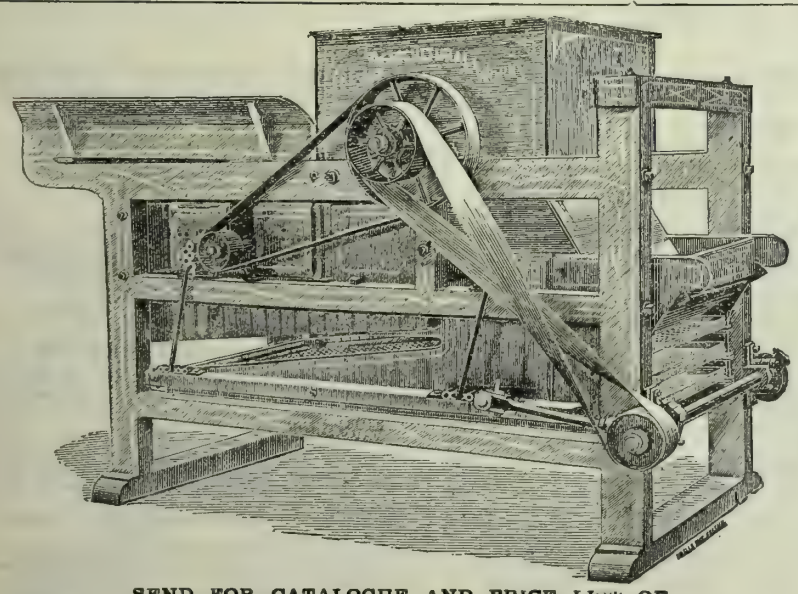

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Prevents Injury During Close Cultivation.

LEVER ADJUSTS DEPTH WHILE PLOWING.

A simple adjustment permits plow nearest vines or trees to make shallow furrow, say two inches, thus avoiding danger to the roots, the others plowing required depth.

Weight of Three-Gang 7-inch only 200 pounds, and amply strong for hard soils Price complete, $38.00.

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STATE FAIR, 1892.

The following San Francisco Firms ana Individuals Received the Highest Awards of the State Agricultural Society at the late State Fair.

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BEST PREPARED PAINT (P. & B.).
SAMPLES OF PAINT, CAL. MANUFACTURE (P. & B.).

The Width of Wheel-Tires in Cities.

The subject of the width of wheel-tires as compared with loads carried on omnibuses, heavy drays, etc., moving over the paved streets, says the *Engineering News*, is brought to the attention of the city authorities of Philadelphia, by Mr. James H. Windrim, Director of Public Works, and Mr. Windrim details some bits of practical experience in this line that will be of interest to municipal officers elsewhere. He says that the omnibuses running on Broad street, in Philadelphia, have an average tire of only 2½ in. During the repaving of Broad street, at an expense of $204,643 in 1892, this omnibus traffic was diverted to side streets with lighter pavements. The result was that in 14 days damage to the amount of $6000 was done in displacing paving, broken crossing-stones, sewer manholes and stop-boxes for gas and water. This all happened in an area of 16,635 sq. yds. of street pavement.

It is altogether probable that the damaged side street referred to was of the more antiquated type of street-paving in that city and was stone-laid on an earth foundation. But undue concentration of load should also be avoided in the traffic over a modern pavement with a concrete base, and its greater first cost is only an argument for its better preservation. We pay altogether too little attention to the subject of tire-width, both in our cities and in the country, and it is time that we were putting into practice regulations that have long existed in other countries. We have failed to find any specific American city ordinances on this head, and the late road-law of the State of Michigan, simply providing that users of wide tires are entitled to a rebate of half their road tax, is a rare exception in State legislation of this character.

English road-laws provide that where the load per wheel is from one-half to three-quarters of a ton, the width of tire shall not be less than 3 in.; where the load ranges from three-quarters to one ton, minimum width shall be 4 in., and from one ton to one and one-half tons per wheel, the tire must be at least 6 in. wide. Vehicles with springs may reduce this tire-width 1 in. This law practically coincides with German and French regulations on this subject. To meet this English law the Broad-street omnibuses complained of should have had tires 5 in. wide instead of 2½ in.

The effect of narrow tires, with a heavy load, upon modern street-paving has not yet been carefully studied and reported upon. But it needs no special study to convince an observer that present practice imposes heavier duty upon such pavement than is necessary, in the face of possible municipal legislation. In the case of stone blocks a broad tire may distribute the imposed load over the base of two blocks instead of one, and in the case of an asphalt pavement ruts are much less likely to occur than with the narrow wheel.

But as the change of wheels would be a costly operation in the aggregate, the salient question is, how can this be done with the least damage to individuals? There is no doubt that a compulsory law could be framed and, if need be, enforced. But the better plan would probably be to directly tax the user of narrow tires under heavy loads, and to free from all tax the men who conform to established regulations. Such an arrangement would give time for the change and yet contain an inducement for as rapid a change as possible. This is practically the same principle that now induces the owners of certain newly-built country roads to remit tolls on such vehicles as conform to published tire requirements. Broad tires are certainly better for use on soft or yielding roads; and on paved or well-built macadam roads the tractive force is independent of the width of tire, provided this width exceeds 3 or 4 in. To the objection that English wheels are clumsy and we will not have them, it can be answered that if broad tires are made the law, wagon-builders will soon eliminate the clumsy features. In the majority of our cities, the same street conditions exist that caused the marked failure in Philadelphia; and in suuh cases, at least, it is conclusively proved that some law of this kind is necessary and that its enforcement would be economical to the community. It seems a bit unwise to adopt modern street-paving methods, and yet to refuse to use every reasonable precaution for the better preservation of costly pavements.

Unitarian Literature

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$500,000

TO LOAN IN ANY AMOUNT AT THE VERY LOWEST MARKET rate of interest on approved security in Farming Lands. A. SCHULLER, Room 3, 420 California Street, San Francisco.

HER POINT OF VIEW.—"Men laugh at us for having senseless notions and doing things for which we can give no good reason," said a woman recently. "I wish some man would explain to me why he carries unimportant papers about him for months, wearing them out in so doing. I've often watched my husband carefully change the contents of coat or trousers pockets from one suit of clothes to another. Soiled, worn envelopes and folded papers are tenderly transferred, and for a long time I was impressed with the importance of the operation and drew an instinctive breath of relief when it was safely over. One day my curiosity got the bet er of me and I begged for a sight of those mysterious documents guarded with such jealous care. To please me my husband went through them. He found several unreceipted bills, some that had been paid and receipts filed, a note from a friend dated three months back, regretting that he didn't find him in his office when he called; one or two business cards of firms he had no recollection of knowing, several advertisement circulars, a playbill of last season's performance, preserved for some forgotten temporary reason, and perhaps three really important papers among the whole lot. And I honestly believe, if I had not prompted the investigation, Mr. —— would be treasuring those worthless bits of paper to this day.—New York Times.

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On any of the above goods send full description with price, and we will forward subject to approval, to be returned if not O. K., at our expense, and money refunded.—Send for full list.

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SOLID COMFORT — THE "WONDER ON WHEELS"

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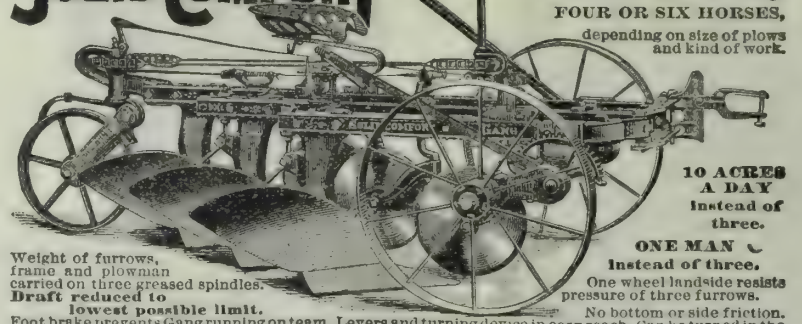

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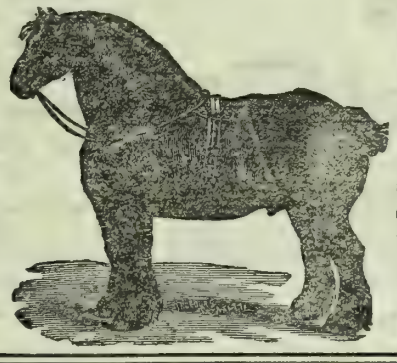

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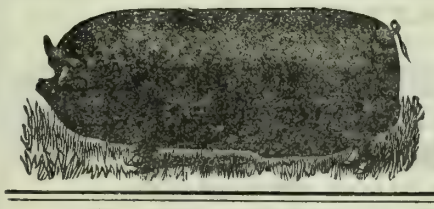

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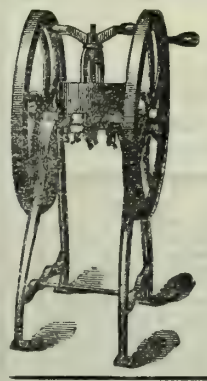

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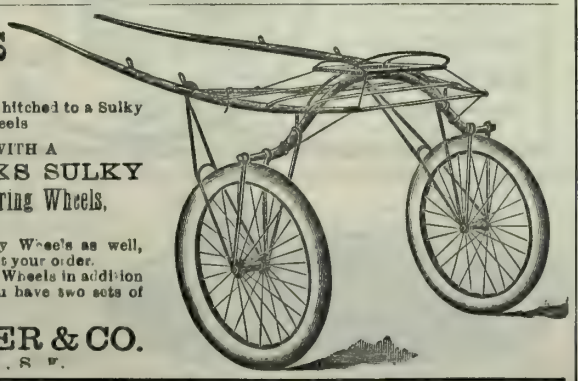

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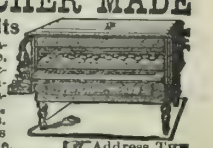

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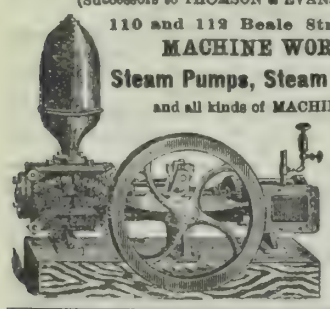

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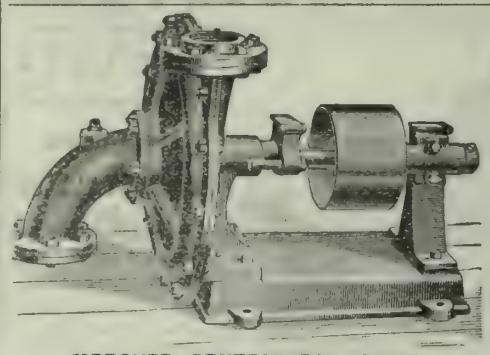

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S. F. Market Report

Market Review.

San Francisco, Nov. 16, 1892.

General trade in farm products has been light in all lines except those adapted to the holiday trade. There is a growing conviction that much better times are near at hand, and that the year 1893 will witness general prosperity in all branches of trade which will be favorably felt in all kinds of farm produce. The money market is essentially unchanged.

Cereals.

Wheat the past few days has been unduly depressed at home and abroad. This depression, it is said by well-informed operators, is part of the program outlined by the moneyed syndicate which is manipulating the leading markets of the world. It goes without saying that the syndicate is materially assisted by the unusual movement of wheat in this country and also by the large ly increased, visible supply the world over. The large movement and heavy supplies have invited short selling, even at the phenomenally low prices of the past few weeks; which has been taken advantage of by the syndicate. It is said that the markets of the world are largely oversold, and that only a favorable opportunity is wanting to advance prices. Operators in this country have evidently forgotten that so far this season the weather has been exceptionally favorable to farmers delivering and therefore the reserve in the farmers' hands is light; besides, there is a large increase in the number of elevators and warehouses reporting stock of grain. The local wheat market has held firm throughout the week. Shippers and millers, when forced into the market, had to pay full quotations with, at times, an advance; but a seller, when forced into the market, had to make concessions to induce buying. The large tonnage in port, and unfavorable weather cause a strong holding by farmers. Two dry winters make a wet winter a necessity to insure a good yield, but at this writing it looks very much as if we will have a very similar winter to the last two. From Oregon we learn that the season east of the Cascades has been favorable to the fall-sown, and that the crop promises to be larger next year than it was this year.

Australian advices report that the outlook is favorable for a large crop. European mail advices report light buying by the continental countries.

Barley the past week was depressed on Call so as to buy actual grain on more favorable terms. Cold weather the past few days has caused more feeding. The strong market for hogs is causing more liberal feeding in several localities for pork. This feeding is emphasized by the favorable statistical position of hog product at the East and a steadily advancing market for live hogs. The market to-day was fairly firm for spot, with a fair inquiry reported.

The receipts of oats the past week were exceptionally large, yet the market held fairly firm. The strength of the market is largely due to strong holding and a report current that available supplies up north are well in hand. The local demand is reported fair for the season of the year. The market for seed oats is said to be strong.

Corn has held to steady prices. A confirmation of the crop in this State being short has created a better feeling, as has the knowledge that there has been an increased feeding to stock. Eastern mail advices report that there has been, and still is, a heavy feeding to hogs, owing to the latter fetching more money, with a strong possibility that still higher prices will range in the near future.

Rye and buckwheat have met with only a fair degree of attention the past week.

Feedstuff.

Bran and middlings have held to fairly steady prices, but toward the close there appears to be a firmer feeling, owing to cold weather and a belief that frosts have nipped the green feed. Roll barley has been in fair demand at steady prices. Toward the close, it is said, there is more inquiry.

Hay has ruled weak, but so far as we can learn, buyers had to pay full quotations when forced into the market; but when not pressed by requirements, they tried to get concessions. It is quite generally believed that the present cold weather will create an enlarged demand for hay, which, if realized, ought to cause better prices. The dry weather causes stronger holding.

Dairy Produce.

The butter market has been in about as unsatisfactory a condition for the selling interest as it generally gets. The depression has been brought about by the trade generally having an unusually heavy supply of pickled and solid and a continued free receipt, for the season, of fresh roll. The stock of pickled, in this city, is fully 75 per cent more than at the corresponding time last year: Keg, about 80 per cent; California fresh roll, about 65 per cent; but of eastern there is all of 20 per cent less. In the hands of the retail trade, it is said, the supply of pickled is largely in excess of any former season. The continued cold weather may possibly soon steady the market.

Cheese has held to steady prices, notwithstanding the large stock in hand. The visible stock in this city is largely in excess of that at the corresponding time in 1891. The demand is fair for the better grades of mild.

The receipts of eastern eggs have been quite free, but as the quality has been generally good, better prices were secured. The most of the retail trade sell selected packs of fresh eastern for Californian, which tends to weaken the latter. Consumers are also going largely to eastern, owing to the difference in prices. China and baker eggs are now mixed in with "as is."

Vegetables.

Cold, frosty mornings the past week nipped the few straggling summer vines, and consequently we can soon look for the total absence of cucumbers, etc., from our market. The general market has been more or less featureless. The absence of liberal supplies restricts the demand for perishable vegetables. There is a fair demand for roots and cabbages.

Onions have made another advance under lessening supplies and a fair demand. The more choice good-keeping are meeting with a fair shipping demand.

The market for potatoes has had a wide range. While choice, free from worms or disease, good keepers have met with a good demand, poor keepers and otherwise inferior have crowded the market and sold at the best prices obtainable. The general feeling is that while choice, good keepers will find ready sale, and perhaps advance, poor stuff will meet with an offish demand at low prices.

Fruit.

The market is well supplied with persimmons. The quality shows an improvement. Table grapes have been in oversupply, and as the quality was poor to fair, the market suffered, owing to holders forcing sales; These forced sales make it difficult to quote correctly. Choice good-keeping grapes meet with a fair demand. Apples clean up fairly well. The supply of something very choice is still light, and, when found, sell at an advance on quotations, provided they are full-sized boxes. Considerable quantities of the more choice apples have come in under-sized boxes, and of course they are sold just so much less than if they were full-sized.

Nuts are meeting with a good holiday call, both from this coast and at the East.

Mexican oranges are in fair supply. They do not meet with general favor. Contracts are being made for California oranges, but the contract prices we are not able to get.

Raisins are moving quite freely to distributive points. Choice to fancy meet with quick sales, but poor are slow.

The market continues to clean up, with odds and ends taken at less than quoted, but full lines of choice to fancy are in request at full quotations. Choice peaches, prunes, apricots and apples are moving off quickly.

Live Stock.

The market for bullocks has held fairly firm, with an advance paid for those that cut up with small wastage. Mutton sheep are steady, with a slightly firmer tone reported. Hogs are in better demand, with a slight advance paid for desirable sizes for packing.

Miscellaneous.

The poultry market was beginning to work into better shape when in come another car of eastern. The bulk of Californian is poor and scrubby, which causes "rejects" and makes it anything but pleasant for the selling interest. Dealers are expecting a letup to the strong flow of fowls to this market. Turkeys have fluctuated. Poor to fair fowls are hard to sell, but choice to something gilt-edged sell readily.

Hops are quiet, but fairly steady. The major portion of the crop of this coast has been placed. English mail advices report a strong market in England, but depressed markets on the continent.

Wool has met with an indifferent demand. Eastern mail advices report an active market at gradually strengthening prices.

The receipts of beans have been free. The large bulk coming to hand is under contract, and goes forward to the East. The market is barely steady at quotations.

Honey is in moderate supply. The market is firm.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending Nov. 15, '92, were as follows:

Flour, qr. sks	92,669	Bran, sks	4,582
Wheat, ctls	407,281	Buckwheat "	470
Barley, "	71,489	Middlings "	1,231
Rye, "	1,244	Chicory, bbls	45
Oats, "	33,257	Hops, "	336
Corn, "	5,934	Wool, "	756
*Butter, "	778	Hay, ton	1,894
do bxs	252	Straw, "	216
do bbls	33	Wine, gals	232,351
do kegs	176	Brandy, "	13,241
do tubs	20	Raisins, bxs	14,592
do ½ bxs	....	Honey, cs	24
†Cheese, ctls	588	Peanuts, sks	583
do bxs	54	Walnuts "	954
Eggs, doz	15,12	Almonds "	608
do " Eastern	83,940	Mustard "	318
Beans, sks	25,156	Flax "	5
Potatoes, sks	35,700	Popcorn "	....
Onions, "	2,470	Broom corn, bbls	206

*Overl'd. ... ctls. † Overland, 242 ctls.

Exports by Sea from San Francisco from July 1 to Nov. 8.

	1892-93	1891-92
Wheat, ctls	4,263,316	6,011,368
Flour, bbls	473,578	428,624
Barley, ctls	735,682	568,814

Tonnage Movement.

From reliable advices up to Nov. 15, the following summary tonnage movement is compiled:

	On the way 1892.	On the way 1891.	In port 1892.	In port 1891.
San Francisco	244,457	393,836	*162,555	123,311
San Diego	11,784	24,617	1,465	.....
San Pedro	9,674	9,890	....	} 32,791
Oregon	40,758	67,817	23,582	
Puget Sound	25,638	28,594	.....	
Totals	331,611	524,754	187,602	156,102

*Engaged for wheat, 1892, 4,589; 1891, 111,469.

Markets by Telegraph.

Visible Supply of Wheat.

New York, Nov. 12.—Special cable advices show that available supplies of wheat afloat for Europe, and those in Europe, the United States and Canada on November 1st, aggregate 154,272,000 bushels—the heaviest ever held at a like date. This exceeds the supply one year ago by 20,681,000 bushels; two years ago by 63,112,000 bushels; and three years ago by 45,000,000.

California Figs, Raisins and Prunes.

New York, Nov. 13.—A feature of the week has been the exhibit of dried figs. They are bright, clean, of good size and uncommonly free from sweat, and are selling at 8½ cents a pound. This new venture was a complete surprise to dealers in foreign fruit, and none of them were delighted at the innovation, which is reasonable when events are considered. It is little more than twenty years since your correspondent saw the first few boxes of raisins sent here from the coast. They were small, dry, sugarly, unmerchantable-looking little things, and no one thought they could be made to compete with Valencia in quantity or grade, yet their prime quality has become commercially recognized, and the last five years has shown a product in pounds almost equal to all foreign imports. Then came prunes. The first imperfect samples were sneered at with the remark: "Well, there are prunes and there are prunes." To-day full lines and brands of Fresno can be found which maintain a precedence over the famous product of Bordeaux. So it is within the scope of possibility that the specialty of Smyrna may also be invaded by Pacific enterprise.

Market for Dried Fruit Is Improving.

New York, Nov. 13.—With decided accounts of shortened supplies of prunes, peaches and apricots, buyers are paying full late rates for all these dried goods without hesitation, and selections may soon be held for more money.

The Raisin Market.

New York, Nov. 13.—Raisins obtain a fair share of local trade. Bags turn out more or less damp, but the weather is cool and their condition is not hurt for prompt use, especially when prices are attractive. Three Crowns sold at 5½@6c; Two Crowns, 4½c; Three Crown boxes loose, $1.60@1 75; Layers, $1.70@2. Reports reach New York of Three Crowns selling at $1.20 free on board on the coast. This, if so, is regarded here as a mistake. Our market is not yet bad enough to warrant the sacrifice of good goods. Receipts by the Sunset route for the season to date are 29,293 boxes and 20,666 bags for New York, and 24,767 boxes and 13,292 bags for New England.

Miscellaneous Produce.

New York, Nov. 13.—Honey—California sells readily at 8½@9 for light amber.

Lima beans are quiet at $2 per bushel. Spot, in a small way $2.05.

Mustard Seed—Yellow California is firm at 7 cents and tending higher. The recent large arrival by Pacific Mail was absorbed in previous sales.

Hops—A pause in the export movement has caused a larger release of interior prime State and the market closes weaker and unsettled; 24 cents for any choice, including Pacific, is rare and outside.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	Nov.	Dec.	Jan.	Feb.	Mar	April.
Thursday	5s10¼d	5s10¼d	6 00½d	6s01½d	6s02½d	6s02½d
Friday	5s10 d	5s11 d	5s11¾d	6s00¾d	6s02 d	6s02½d
Saturday	5s10¼d	5s11¼d	5s00¼d	6s01¼d	6s02¼d	6s02¾d
Monday	5s10½d	5s11½d	6s00½d	6s01½d	6s02½d	6s02¾d
Tuesday	5s09¾d	5s10¾d	5s11¾d	6s00¾d	6s01¾d	6s02¾d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. O.	P. S.	N. D.	Market for P. S.
Thursday	33s	33s3d	33s	Steadily held.
Friday	33s	33s3d	33s	Higher prices asked.
Saturday	33s	33s	33s	Quiet but steady.
Monday	32s9d	33s	32s9d	Quiet but steady
Tuesday	....	....	32s0d	Quiet but steady.

To-day's cablegram is as follows:

Liverpool, Nov. 16.—Wheat—More demand at the decline. California spot lots, 6s 8d; off coast, 32s 9d; ju t shipped, 32s 9d; nearly due, 32s 9d; cargoes off coast, nothing offering; on passage, rather easier; Mark Lane wheat, weaker; French country markets, inactive.

San Francisco.

WHEAT.

	Seller '92.	Buyer Dec	Jan.	May
Thursday, high st	....	134⅝	....	137¾
" lowest	....	134⅝	....	137½
Friday, highest	....	135	....	138⅛
" lowest	....	135	....	138⅛
Saturday, highest	....	134	....	137⅞
" lowest	....	133¾	....	136⅞
Monday, highest	....	134	....	137⅞
" lowest	....	133⅞	....	136⅞
Tuesday, highest	131	133⅝	132¼	136½
" lowest	131	132¾	132	136

The following are to-day's recorded sales on Call:

Wheat — Morning — Informal: May—1000 tons, $1 36¼; 300, $1.36⅝; 6 0, $1.36⅞; 500, $1.36¼. Buyer December—700 tons, $1.33⅛; 200, $1.3.; 1300, $1.32¾. Seller 1892—100 tons, $1.31½; 100, $1.31½; 100, $1.31 per ctl. Afternoon. May—100 tons, $1.36½; 700, $1.36⅜ per ctl.

BARLEY.

	Seller '92.	Dec.	Jan.	May
Thursday, highest	....	*92	....	....
" lowest	....	91⅞	....	....
Friday, highest	....	91½	90¾	94⅞
" lowest	....	89½	90⅜	94⅛
Saturday, highest	....	*9 ⅞	9 ¾	94⅞
" lowest	....	90⅛	90⅜	94⅛
Monday, highest	....	*90⅜	90½	....
" lowest	....	9 ⅜	90¼	....
Tuesday, highest	....	*89⅞	89¾	93⅞
" lowest	....	89¼	89½	93¼

*Buyer option.

The following are to-day's recorded sales on Call:

Barley—Regular session: January—100 tons, 89½c; 400, 89¾c; 300, 89⅞c May—200 tons, 93¾c December—100 tons, 88¾c per ctl. Afternoon: December—100 tons, 88½c; 100, 88¾c; 200, 88¾c; 200, 89c; 100, 89½c. Buyer December—200 tons, 90½c; 200, 90¼c, May—500 tons, 93½c; 300, 93¾c per ctl.

Eastern Markets.

The following shows the closing prices per cental of wheat for the past week at

New York.

Day.	Nov.	Dec.	Jan.	March.	May.
Thursday	....	128	130	....	139½
Friday	127⅞	129½	132	138	141
Saturday	127	128⅞	131	136½	140½
Monday	. .	128¼	131	136	140
Tuesday	126	125	129½	134⅞	138½

The following is to-day's telegram—per bushel:

New York, Nov. 16.—Wheat—76½c for December, 77⅞c for January, 81c for March, and 83⅞c for May.

Chicago.

Day.	Nov.	Dec.	May
Thursday	....	121	131
Friday	121⅞	123½	132¾
Saturday	121	122¾	132
Monday	120½	122	131
Tuesday	118½	120	130½

The following is to-day's telegram—per bushel:

Chicago, Nov. 16.—Wheat—72⅝c for December, and 78½c for May.

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

November 16, 1892.

Limes, Mex	3 00 @ 3 50	Huckleberries lb	4 @ 6
Do Cal	— @ —	Extra choice fruit for special purposes sells at an advance on outside quotations	
Lemons, box	6 00 @ 8 00		
Do Sicily choice	7 00 @ 8 50		
Strawberries, pr chest	5 00 @ 8 00	Beets, sk	— @ 50
Apples	30 @ 60	Carrots, sk	30 @ 50
Do Choice	75 @ 1 00	Okra, dry, lb	8 @ 10
Do Extra choice	— @ 1 25	Parsnips, ctl	1 00 @ 1 50
Grapes, pr bx—		Peppers, dry, lb	7 @ 9
Do White	25 @ 40	Do grn Chili, bx	40 @ 60
Do Black	25 @ 40	Do do Bells	40 @ 60
Do Muscats	25 @ 50	Turnips, ctl	— @ 60
Do Tokays	35 @ 50	Cabbage, 100 lbs	35 @ 50
Do Royal Isabel	1 00 @ 1 25	Garlic, lb	2 @ 2½
Do Cornichon	50 @ 75	Tomatoes,	25 @ 60
Wine Grapes,		String Beans, lb	3 @ 4
Zinf'nd'l, pr tn	— @17 00	Lima Beans	4 @ 4½
Mission	12 00 @15 00	Cucumbers, box	50 @ 75
White	9 00 @12 00	Mushrooms	— @ —
Pears	25 @ 75	Egg Plant, bx	25 @ 50
do Winter Nelis	75 @ 1 25	Mar'fat Squash, ⅌ ton	8 00 @10 00
Quinces pr bx	75 @ 1 00	Cauliflower	50 @ 65
Persimmons	1 00 @ 1 50	Celery	50 @ 75
Pomegranates, lb	2 @ 4		

Dried Fruits.

The quotations given below are for average prices received by commission merchants for consignments by growers. Something very fancy fetches an advance on the highest quotations, while poor sells slightly below the lowest quotations. Prices, unless otherwise specified are for fruit in sacks; add for 50-lb. boxes ½c per lb. and for 25-lb. boxes ¾ to 1c per lb.

APPLES - 1892.		PEARS—1892.	
Sun-dried, ¼'s, prime	3¼@ 4	Sun-dried, quarters	—@ 3
Do do choice	4 @ 4½	Do sliced	4 @ 5
Do sliced, prime	4 @ 4½	Evap., slic'd, in b'xes	7 @ 8
Do do choice	4½@ 5	Do ring do	9 @10
Evap. bl., ri g, 50-lb. bx	8 @ 9	Unp'led, q'rt'd, bl'ch'd	6 @ 7
Fancy, higher.		PLUMS—1892.	
APRICOTS—1892.		Pitted, sun-dried	10 @10½
Do bleached	13½@—	Do evap. boxes, choice	— @ —
Do do fancy	15 @16	Do do do fancy	— @ —
Evap. choice, in boxes	15 @16	Unpitted	4 @ 5
Do fancy, do	15½@17	PRUNES—1892.	
FIGS—1892.		Cal. French, ungraded 7⅞	@ 8
Sun-dried, black	4 @—	Do graded, 60 to 100	8½@ 9
Do white	3½@—	Do do 40 to 60	11 @12
GRAPES—1892.		Fancy sell for more money.	
Sun-dried, stemless	3 @—	RAISINS—1892.	
Do unstemmed	1½@ 2	London Layers, cluster per box	1 90 @2 00
NECTARINES—1892.		Do choicest do	1 60 @1 70
Red, sun-dried	7 @ 8	Do prime pr bx	1 40 @1 45
Do Evap., in boxes	—@—	Loose Muscatels, common, pr bx	—@1 00
White, sun-dried	9½@11	Do choice do	1 25 @1 30
Do evaporated	—@—	Do fancy do	1 40 @ —
PEACHES—1892.		Unstem'ed Muscatels in sks pr lb.	4 @ 5½
Sun-dried, unpeeled	7 @ 7½	Stemmed do do	—@ —
Do do prime, bl'ched	10 @—	Seedless do do	—@ —
Do do choice, do	11 @—	o do pr 20-lb. bx	—@ —
Do do fancy	11½@ —	Sultanas, unbl, bxs	—@ —
Sun-dr., pl'd, bl'ched	@—	Do bl'ched in bxs	—@ —
Do do prime	14 @—	Halves, quarters and eighths 25, 50 and 75 cents higher respectively than whole boxes.	
Do do choice	—@15		
Do do fancy	—@16		
Evap., peeled, in boxes choice	17½@—		
Do do fancy	20 @—		

General Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

November 16, 1892.

BEANS AND PEAS.		Do country m'ls	3 90 @ —
Bayo, ctl	2 30 @ 2 35	Superfine	2 50 @ 3 00
Butter	2 75 @ 3 00	NUTS—Jobbing.	
Pea	2 50 @ 2 60	Walnuts, Cal. lb.	8 @ —
Red	2 40 @ 2 50	Do choice	10 @ —
Pink	2 00 @ 2 10	Do paper-shell	11 @ —
Small White	2 45 @ 2 55	Almonds, sft sh'l	12 @ —
Large White	2 25 @ 2 35	Paper shell	13½@ —
Lima	2 75 @ 3 00	Hard shell	6 @ —
Fid Peas, blk eye	1 60 @ —	Brazil	8 @ —
Do green	2 20 @ —	Pecans, small	8 @ 10
Do Niles	1 40 @ —	Do large	14 @ 16
Split	4 50 @ 5 50	Peanuts	3½@ 4½
BUTTER.		Filberts	10 @ —
Cal., poor to fair, lb	12½@ —	Hickory	7 @ 8
Do g'd to choice	20 @ —	Chestnuts	18 @ 20
Do Giltedged	— @ 30	ONIONS.	
Do Creamery	26 @ —	Silverskin	50 @ 75
Do do Giltedge	— @ 32½	POTATOES.	
Eastern, lad e	12½@ —	River Reds	30 @ 40
Cal. Pickled	20 @ —	Early Rose, ctl	40 @ 50
Cal. Keg	20 @ 24	Peerless	60 @ 70
East'rn Cr am'y	25 @ —	Garnet Chilies	60 @ 70
CHEESE.		Surbank Seed's	40 @ 60
Cal. choice cream	9½@ —	Do do Salinas	90 @ 1 25
Do fair to good	8 @ —	Sweet	50 @ 1 00
Do Giltedged	— @ 12	Extra choice sell for more money	
Do Skim	5 @ 6½	POULTRY.	
Young America	— @ 12	Hens, doz	5 50 @ —
EGGS.		Roosters, old	5 50 @ 6 50
Cal. "as is," doz	27½@ —	Do young	5 00 @ 6 00
Do shaky	20 @ —	Broilers, small	3 00 @ 3 50
Do candled	37½@ —	Do large	3 50 @ 4 50
Do choice	45 @ —	Fryers	4 00 @ 5 00
Do fresh laid	— @ 47½	Ducks	4 00 @ 4 50
Do do s'led wht e	— @ 50	Do large	4 50 @ 5 50
Eastern cold-storage	21 @ —	Do extra large	— @ 7 00
Do fresh	26 @ —	Geese, pair	1 50 @ 1 75
Do selected	— @ 35	Turkeys, gobl'r.	15 @ 18
Outside prices for selected large eggs and inside prices for mixed sizes—small eggs are hard to sell.		Turkeys, hens	15 @ 17
FEED.		Do dressed	16 @ 19
Bran, ton	14 00@ 15 00	All kinds of poultry, if poor or small, sell at less than quoted; if large and in good condition, they sell for more than quoted.	
Feedmeal	26 00@ 27 00		
Gr'd Barley	19 50@ 20 50		
Middlings	21 00@ 23 00		
Oil Cake Meal	—@ 35 00		
Manhatan Horse Food (Red Ball Brand) in 100-lb. Cabinets	— @ 8 00	Manhattan Egg Food (Red Ball Brand) in 100-lb. Cabinets	— @11 50
HAY.		GAME	
Compressed	—@10 50	Quail, per doz	1 00 @ 1 25
Wheat, per ton	8 50@ —	Ducks	— @ —
Do choice	— @ 14 00	Do Mal'd ⅌ doz	4 00 @ 5 50
Wheat and oats	8 00@ 12 50	Do Sprig	2 25 @ 3 00
Wild Oats	7 00@ 10 00	Do Teal	1 50 @ —
Cultivated do	6 00@ 9 00	Do Widgeon	1 50 @ 2 00
Barley	6 50@ 9 00	Do small	1 00 @ 1 50
Alfalfa	8 00@ 9 50	Geese	— @ —
Clover	8 00@ 10 00	Do gray ⅌ doz	2 00 @ 2 50
Straw, bale	30@ 40	Do White	1 00 @ 1 50
GRAIN, ETC.		Do Brant	1 00 @ 1 50
Barley, feed, ctl	80 @ —	Snipe	— @ —
Do good	85 @ —	Do English, doz	1 50 @ 2 00
Do choice	87½@ —	Do Jack, per doz	75 @ 1 00
Do trewing	92½@ —	Hare, per doz	1 00 @ 1 25
Do do choice	96½@ —	Rabbits, large	1 25 @ 1 50
Do do Giltedge 1	00 @ —	Do small	1 00 @ 1 25
Do Chevalier	1 00 @ —	PROVISIONS.	
Do do Giltedge 1	15 @ —	Cal. bacon, heavy, per lb.	13 @ —
Buckwheat	2 25 @ —	Medium	13 @ —
Corn, white	1 15 @ 1 20	Light	14 @ —
Yellow, large	1 05 @ 1 07½	Lard	8½@ 12
Do small	1 12½@ 1 15	Cal smk'd beef.	11½@ —
Oats, milling	1 37½@ — —	Hams, Cal salt'd	13 @ —
Feed, choice	1 35 @ — —	Do Eastern	14 @ —
Do good	1 30 @ — —	SEEDS.	
Do fair	1 25 @ — —	Alfalfa	10 @ —
Do common	1 17½@ — —	Clover, Red	14 @ —
Surprise	1 45 @ — —	White	28 @ —
Black Cal	1 10 @ 1 25	Flaxseed	2 25 @ —
Do Oregon	— @ — —	Hemp	4½@ —
Gray	1 30 @ — —	Mustard, yellow	5½@ 6½
Rye	1 12½@ 1 17½	Do brown	4 @ —
*Wheat, milling Giltedged	1 35 @ — —	WOOL.	
Do choice	1 33¾@ — —	FALL, 1892.	
Do fair to good	1 32½@ — —	S Joaquin, plain	6½@ 10
Shipping, choice	1 33¾@ — —	Do mountain	10 @ 12
Do good	1 31½@ — —	Do lamb	8 @ 10
Do fair	1 28½@ — —	Northern Choice	14 @ —
Common	1 26½@ — —	Do Defective	11 @ —
Sonora	1 25 @ 1 30	Do Lamb	10 @ 14
HOPS.		HONEY—1892 CROP.	
1892, fair	18 @ —	White comb, 2-lb frame	9½@ 12½
Good	20 @ —	Do do 1-lb frame	11½@ 14½
Choice	21 @ —	White extracted	7½@ —
FLOUR.		Amber do	6¾@ —
Extra, city mills	3 90 @ —	Dark do	6½@ —
		Beeswax, lb	23 @ —

Live Stock.

BEEF.		MUTTON.	
Stall fed	6 @—	Wethers	6½@—
Grass fed, extra	5¾@—	Ewes	6 @—
First quality	5¼@—	Do Spring	7½@—
Second quality	4½@—	HOGS.	
Third quality	3 @—	Light, ⅌ lb, cents	5 @—
Bulls and thin Cows	2 @—	Medium	4¾@—
VEAL.		Heavy	5 @—
Range, heavy	5 @—	Soft	4½@—
Do light	6 @—	Feeders	3¾@—
Dairy	7 @8½	Stock Hogs	4 @—

Twine and Baling Rope.

BALE ROPE.		TWINE.	
Sisal, 3 yarns	9	Pure Manilla Hop, in balls, tarred	11½
Do, 2 yarns, light	9½	Do, Grapevine, in balls or coils	12
Duplex, 3 yarns	9	Do, Spring	16
Manilla, 3 yarns, heavy	10½	Duplex Hop in balls, tar'd	9½
Pure Manilla, 3 & 4 yarns	12	Do, Grapevine, in balls or coils	10½
Do, 2 yarns, light	12½		

Wine.

Red and White Wine from bay counties, vintage of 1891, per gal., in cellar lots 12 @20
1892 vintage in cellar lots 10 @15

Auction Sales of California Fruits.

At New York.

Nov. 9.—Two carloads: Tokay Grapes, double crates, $3.20@4 65; Tokay Grapes, single crates, $1 60@2.35; Cornichon Grapes, single crates, $1.60@2.30; Cornichon Grapes, double crates, $3.75@3.90; Morocco Grapes, single crates, $1.90@2.25; Muscat Grapes, single crates, $1.25; Black Prince Grapes, single crates, $1.35; Easter Beurre Pears, $3@3.85.

Two carloads: Tokay and assorted Grapes, $1 90@2.10 for single crates, and Winter Nelis Pears at $3.40.

Nov. 10.—Two carloads: Tokay Grapes, double crates, $3.40@4 80; do, single crates, $1 40@2.45; Cornichon Grapes, single crates, $1.60@2 75; do, double crates, $3 90@3.95; Emperor Grapes, single crates, $1.35; Black Prince Grapes, single crates, 85c; Muscat Grapes, single crates, $1.30; Winter Nelis Pears, $3.70.

Nov. 10.—One carload; Tokay Grapes, double crates, $3.25@4 65; single crates, $1.20@2.60; Cornichon Grapes, double crates, $3 90; single crates, $1 35@2; Emperor Grapes, single crates, $1.35; Black Ferrara Grapes, single crates, $1.05.

Nov. 11.—Two carloads; Ferrara, Muscat, Emperor, and Cornichon Grapes in single crates brought 80c@$1.70; and Winter Nelis, Glout Morceau and fancy P. Barry Pears, $3.50@4.50.

Nov. 12.—One carload: Tokay Grapes, double

crates, $3.00@6.10; do, single crates, $1.80@2.85; Cornichon Grapes, single crates, $2.25@2.45; do, double crates, $4.50; Easter Beurre Pears, $3.85. The demand for grapes and pears is good and prices firm.

Nov. 12.—One carload: Tokay Grapes, double crates, $3.85@6.10; single crates, $1.70@2.85; Cornichon Grapes double crates $4.50; single crates, $2.45; Black Ferrara Grapes, single crates, $1.

Nov. 14.—Three carloads: Tokay Grapes, double crates, $3.05@6.50; do, single crates, $1.85@3.10; Cornichon Grapes, double crates, $3.80@6.25; do, single crates, $1.60@3.45; Morocco Grapes, single crates, $1.50@2.20; Emperor, do, $1.20@1.75; Black Prince, do, 80c; Verdell do, 65c@80c; Muscat, do, 65c; Quinces, per box, $1.55; Winter Nelis Pears, $2.20@2.95; Easter Beurre Pears, $2.65@2.95.

Nov. 12.—Three carloads: Black Ferrara, Tokay and Cornichon Grapes at 75c@$1.25 for single crates and $2.60@3.50 for double crates.

At Chicago.

Nov. 9.—Two carloads: Emperor Grapes, double crates, $4.10; single crates, $1.50; Black Ferrara Grapes, single crates, $1.15; Muscat Grapes, single crates, 90c@$1.05; Malaga Grapes, single crates, 95c; Winter Nelis Pears, $2.50@2.80. Some Grapes which arrived in bad order sold for less.

Nov. 10.—One carload: Muscat Grapes in single crates at prices ranging from 65c to $1.10.

Nov. 12.—One carload: Muscat Grapes in single crates at prices ranging from 80c to $1.10.

Nov. 14.—Two carloads: Tokay Grapes, single crates, $1.45; double crates, $1.80@2.75; Cornichon Grapes, double crates, $2.85; Muscat Grapes, single crates, 65c@80; double crates, $1.35@1.40.

At Boston.

Nov. 14.—Two carloads: Cornichon Grapes, double crates $3.90; Tokay Grapes, double crates, $2@5.20; single crates, $1.85@2.

A Great Auction Sale of Holstein Cattle and Standard-bred Horses.

The noted herd of Holstein-Friesian cattle belonging to Mr. J. H. White of Lakeville, Sonoma Co., will be sold at public auction at the yards of Killip & Co., corner of Market St. and Van Ness Ave., San Francisco, on Wednesday, November 30th. This herd of cattle was picked from the most noted families in North Holland, and was selected by Mr. Theodore Koch from such noted sources as Jacobus, Leegwater, Pieter and Simon herds.

There are 62 head of cattle, that will be sold at auction, bred on the best blood lines and registered in the Holstein-Friesian Herd-book. At the head of the herd is the six year-old bull Huachuca (90); weight, 2000 lbs; sire, Prince of Haarlem; dam, Hoffnung.

Prince of Haarlem by Jacobson (251); dam, Krouwer; milk record, 70 2-5 lbs.; grandam, Krouwer; milk record, 74 4-5 lbs.

Hoffoung by District Bull of Beemster; dam, Treyn I; milk record, 79 1-5 lbs.; grandam, Saar; milk record, 74 4-5 lbs.

The following are his associates among the bulls:

Loris, six years old; dam, Loowarda; sire, Jacobus.

Oakland, three years old; sire, Williard W.; dam, Annollye.

Ontongs Ourang, two years old; sire, Halbert; dam, Ontong.

Olinkas Orick, two years old; sire, Huachuca; dam, Olinka.

Oleander Jouquel, one year old.

Among the cows are Muttertrue, Brinhilda and Annemie; also Dagodine, which latter has been illustrated in the RURAL PRESS.

Annemie, whose photo-engraving was published in the *Holstein-Friesian Journal*, was bred by P. Koppes, Haarlemmermeer, North Holland; sire, Bismarck; dam, Wietske; milk record, 70 2-5 lbs

Wietske by Graaf; dam, Anna; milk record, 74 4-5 lbs.

Mr. White's herd as it now stands has been sired by 24 different bulls. The dam of one of these bulls has a record of 82 lbs. of milk in 24 hours; of another, 70 lbs.; of another, 71 lbs.; of four, 68 lbs.; of one, 66 lbs.; and of two, 61 lbs. The dams of the herd have, on grass alone, given as much as 80 lbs. of milk a day. There are four with records of 79 lbs.; ten with daily records of over 75 lbs.; twelve with 70 lbs. and over; twelve with 65 lbs. and over; ten with 60 lbs. and over; and three with 55 lbs. and over.

Educated judges of Holstein cattle pronounce this herd, in point of excellence, the best in the State.

Mr. White's cattle have won wide fame by their presence at the District and State Fairs, and are often described by expert beholders, taking into account both the quality of the animals and the evident intelligent care which they have enjoyed, as the cleanest, neatest lot of Holsteins to be seen anywhere.

Our reporter made a flying trip to this great breeding establishment, and reports the cattle in fine condition. There is much regret expressed that this herd, which has been selected with so much care from representatives of famous deep-milking herds, should be disbanded.

Mr. H Mecham, the well-known stock-breeder, informed our reporter that there was but one herd of Holsteins in the United States that were the equal of Mr. White's herd.

Parties wishing to make an examination of this herd can do so from Saturday, 26th inst., until the day of sale at the stockyards of Killip & Co., corner of Market St. and Van Ness Ave., San Francisco.

STANDARD-BRED HORSES.

At the same date 40 head of standard-bred horses will be sold at auction. This stud represents the most fashionable blood lines and producers in the United States, among which are the get of Director, Electioneer and Stamboul, from mares with pedigrees running back to McClellan, Bellifounder and Membrino.

A full description of this stud will be found in the *Breeder and Sportsman* of even date with this issue. Catalogues of cattle and horses are now ready and can be had by addressing Killip & Co., 26 Montgomery street, or office of RURAL PRESS.

It is the purpose of Mr. White to make this a closing out sale, as he has changed his residence from Lakeville to Alameda. We can but emphasize the importance of this sale to buyers, as, in connection with the cattle, it will be the most noted sale ever held in this State.

A Notable Wedding.

On Saturday last, November 12th, at Vallejo, SCIPIO CRAIG, the well-known newspaper man and editorial prophet of southern California, was joined in the bands of wedlock to Mrs. Mary Lynde Hoffman, one of the literary lights of San Francisco. The interesting ceremony was performed in the pretty little Church of the Ascension, by Rev. Mr. Ballard, rector of the church.

Mr. Craig is editor and proprietor of the *Citrograph* of Redlands, San Bernardino county; president of the Editorial Association of southern California; vice-president of the Press Association of northern California, and a member of the Republican State Central Committee.

Mrs. Hoffman, now Mrs. Craig, is a lady well-known in the literary and social circles of this city. She is historian of the Law Club and of the Daughters of the American Revolution. She is also alternate delegate of the Pacific Coast Woman's Press Association to the Woman's World's Congress, which meets at Chicago in June next. Mrs. Craig, for the past year and a half, has kept pace with the graduates of Harvard as a member of the Law College of the University of California, in which institution she proposes to complete the full course, leading up to the degree of L. L. B. In June last, when 11 men dropped out of the Law College, having failed to pass the examination from junior to middle year's work, Mrs. Craig successfully passed the ordeal.

Well might our bride and groom look happy, as they did, since each had secured for a life companion a friend, an ardent lover and an enthusiastic and earnest literary worker.

The ceremony was supplemented by an elegant repast at the rectory, in a quiet, queenly way, by the rector's wife, whose *facile* and trenchant pen has illumined the pages of numerous papers and magazines from the Atlantic to the Pacific.

The happy party was small and select—warm friends of the bride and groom—and each recorded his or her name in a beautiful souvenir of a book, bound in white and gold, containing a copy of the marriage service and certificate.

The happy pair have each a home—the one amid the beautiful orange groves of Redlands, the other in this city, and they propose to divide their time in alternating from the one to the other. Mr. and Mrs. Craig left the city by the Monday afternoon train for a tour through southern California, hoping to reach their Redlands' home in time for Christmas greetings.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription, paid in advance, 5 mos., $1 10 mos., $2; 15 mos., $3. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

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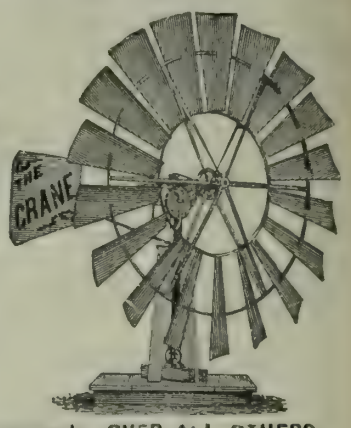

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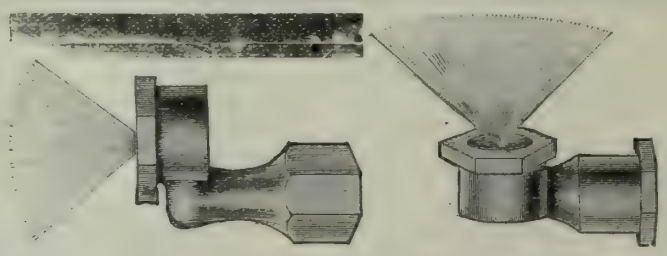

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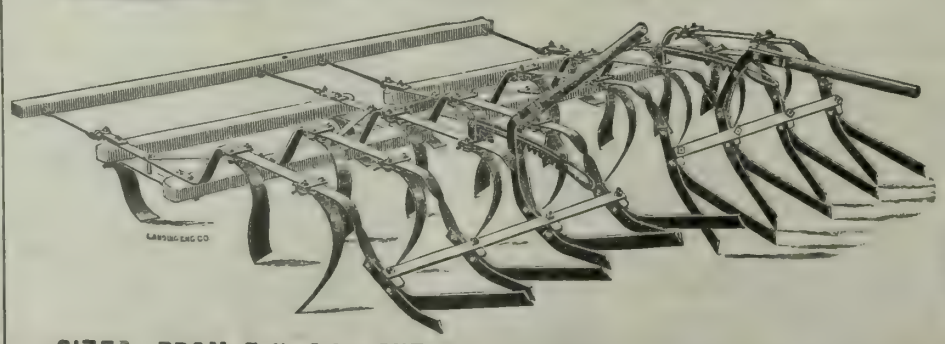

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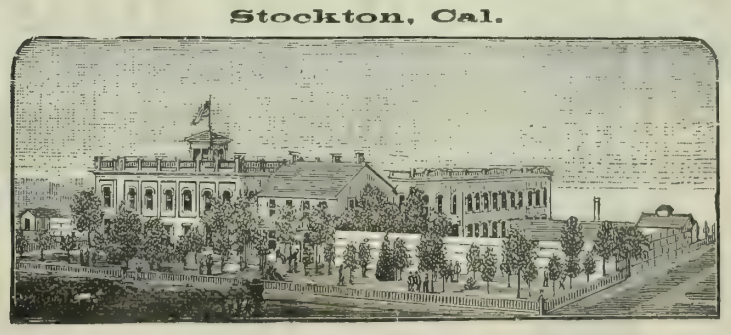

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Is the BEST in the Market for all alluvial soils and is also the Cheapest.

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We make Iron Frame Gangs, Single Plows, Superior Channel Iron and Wood Frame Harrows, Disc Harrows, Warehouse Trucks, Wheelbarrows, etc., etc.

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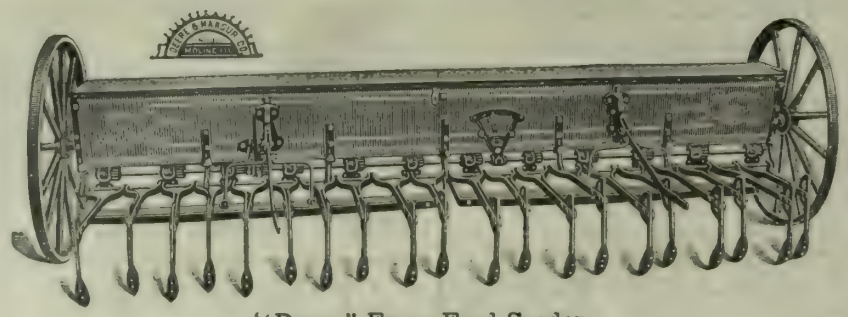

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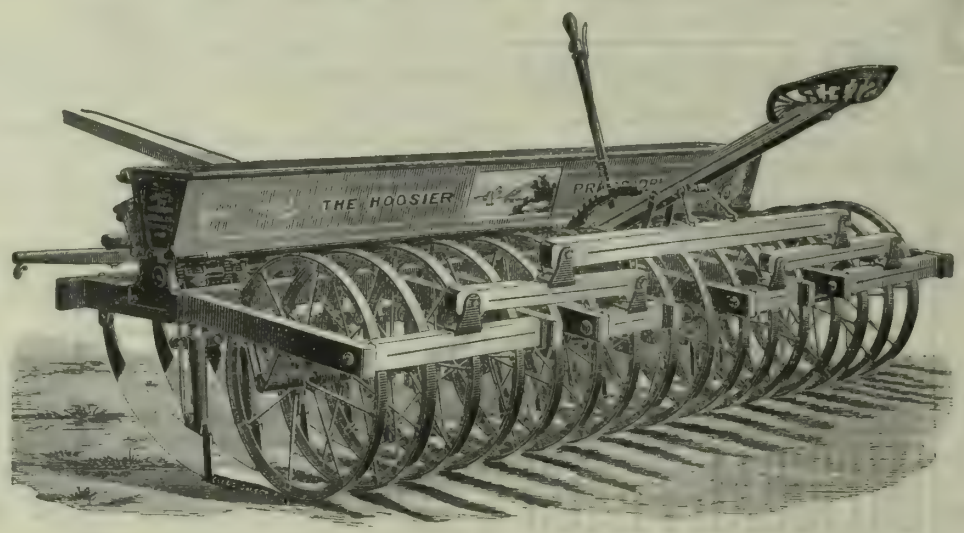

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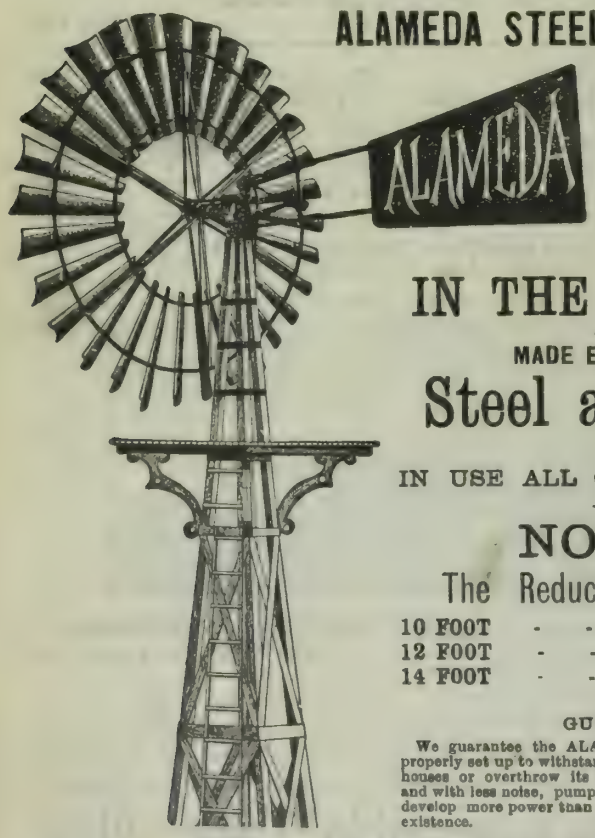

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Steel and Iron.

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The Reduction in Prices:

10 FOOT	$40 00
12 FOOT	$50 00
14 FOOT	$60 00

GUARANTY.

We guarantee the ALAMEDA STEEL WINDMILL when properly set up to withstand any wind that does not unroof houses or overthrow its tower, and that it will run easier and with less noise, pump more water, regulate better and develop more power than any other mill of like diameter in existence. TRUMAN, HOOKER & CO.

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If you want to get the Best, Cheapest and Lightest Draft GANG PLOW in the Market ask for the

BRADLEY, 2, 3, or 4 Gang.

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GALE SPRING TOOTH SEEDERS.

Every Farmer Should have a NEW GALE HARROW AND SEEEER for the Following Reasons:

1st. **For Pulverizing Sod** it has no equal. By dropping the frame down to the lower hole in side adjustment, it cannot turn up the sod; this is the position first time over, then raise the frame to center hole, bring the lever clear back, which sets the teeth forward in a cutting position.

2d. **For Hard Fallow or Fall Plowing,** raise the frame to upper hole in side adjustment for first time over; this will break up the crust, then drop the frame to center hole, and it will cultivate four inches deep, in a manner that *cannot be equaled by any implement now in use*

3d. **For Stumpy, Rooty or Stony Ground,** drop the frame down to last or second hole, this will allow the teeth to let go without danger of breaking, and still do good work. *It has no equal for rough ground.*

4th. **As a Fallow Cultivator** it is the best in use, as it leaves all the trash taken out on top, where it withers and dies out.

5th. **For Cultivating Corn** or anything planted in rows.

6th. **As a Seeder** it is the best now in use It has a positive force feed, sows all kinds of grain, peas and flax seed, and covers perfectly as you seed.

Lastly, but not least, it is a **Potato Digger.** Remove four teeth from each side, leaving seven teeth in center; drop the frame clear down, bring the lever clear back, and then dig alternate rows; after picking up the potatoes, cross harrow the ground, and it will be left smooth and level.

Will Seed and Cover Forty Acres per Day. Two No. 4's or No. 8's coupled together on three wheels, produce a machine that adjusts itself to uneven ground.

Will Save the Price of Itself Every 1000 Acres.

Messrs. TRUMAN, HOOKER & Co., San Francisco, Cal. YUBA, Cal., Sept. 7th.

Gentlemen:—I think the Gale Harrow and Seeder the best I have ever used or seen used. A farmer can get a better stand with less seed with a Gale than with either the Gorham, Gem or Osborn, and sows more regular. It will save the price of itself every thousand acres. I have sown altogether about 3000 acres.

Very truly yours, J. C. WILKINS.

No. 8—5½ feet Gale Harrow, with Seeder, 15 teeth	Price, $73 50
No. 8—5½ feet Gale Harrow, no Seeder, 15 teeth	49 00
No. 4—6½ feet Gale Harrow, with Seeder, 18 teeth	77 00
No. 4—6½ feet Gale Harrow, no Seeder, 18 teeth	52 50
No. 11—11 feet Gale Harrow, with Seeder, 30 teeth	147 00
No. 13—13 feet Gale Harrow, with Seeder 36 teeth	154 00

The No 11 is two No. 8's coupled and is two complete machines.
The No. 13 is two No. 4's coupled and is two complete machines.

PACIFIC RURAL PRESS

Vol. XLIV. No. 22. SAN FRANCISCO, SATURDAY, NOVEMBER 26, 1892. THE DEWEY PUBLISHING CO Office, 220 Market St.

An African Arrival.

An interesting increment of population has just come to Stockton, consisting of the whole membership of the Washington Street Baptist Church, of Memphis, Tenn., with their pastor at their head as leader of the expedition. Exact numbers are not given, but it is said that the procession covered a block as they proceeded to the African church in Stockton, where they were welcomed by the local colored population. Emigration by churches seems to be the way it is done and another Memphis church is expected to arrive next week in Lodi. When questioned the immigrants stated that they would live together as one family. Each, upon obtaining employment, would either find quarters elsewhere or live with the rest of the party as circumstances might dictate. Among the party there are a few elderly people, but most of them are of middle age. There are only six men. After the arrival of the lot which is expected next week, no more will come until January, when 100 will arrive. Those who are going into the Lodi region have clubbed together and purchased a few small tracts of land which they will farm.

Grape Syrup.—There is already something of a grape-syrup product in this State, and we apprehend that in the face of cheap cane-sugar syrups, it will be easy to reduce the price below a profitable mark. Still, it is desirable to have the subject investigated and we are interested to know that Secretary Scott of the Viticultural Commission has been studying the problem of determining the best method of making syrup from grapes. There is an immense quantity of Muscat grapes not suited for making good raisins, and some believe it can be advantageously put into syrup manufacture. Mr. Scott has been ordered by the commission to prepare an exhaustive essay on the subject, and he says he will have it ready on the first of next month. It will be a full 25-page pamphlet, and will furnish important information to vineyardists and merchants. The syrup from the Muscat grapes has a pleasant flavor and is as distinctive in its character as maple syrup. It is reported that grape syrup has been received favorably in the Eastern markets and also on this coast. The vacuum process and the open pan-process of manufacture will be discussed by Secretary Scott, and the information will be of general interest, though investment should be cautiously made and with as full forecast as possible of the market.

A Canadian cheese weighing over 22,000 pounds will be on exhibition at the World's Fair next year.

Persimmon Profits.—We alluded recently to the reported profits of a Louisiana grower of the native persimmon. A Florida exchange seems to mildly doubt the statement. As California growers seem sometimes to have a little trouble to make Japanese persimmons go profitably, they may be interested in reports of Florida sales. The *Agriculturist* says: We were shown by Mr. J. L. Nuckols, of DeLand, returns for the fruit averaging about $3 per half-box. Mr. D. W. Adams, of Tangerine, has forwarded us account of sales for six boxes of persimmons at $5 per box." We don't know just what weight Florida growers put in their boxes, but making a guess at fair weight and the prices seem good—not less probably than 10 cents per pound. Sales have been made as high as that in this State sometimes, but not often.

Twenty-one Decembers.—The local office of the Weather Service sends us a circular which combines the December observations of 21 years as follows: Greatest rainfall, 14.36 inches, in 1871; least, no rain, in 1876; average December rainfall, 5 13 inches. The warmest December was in 1885, with average temperature of 53.5°; the coldest in 1879, with average 49.4°. Highest temperature on any December day was Dec. 20, 1869, at 69°; lowest Dec. 24th, 34°. From these points our readers can figure out what they are likely to undergo next month.

Insecticides Prevail.—At the San Jose convention, both President Cooper and entomoligist Koebele took the ground in their addresses, that parasitic and predaceous insects could be expected to exterminate injurious insects. The convention looked upon this as likely to be made a pretext by the shiftless fruitgrower to neglect tree cleansing, and so it was voted to strike such hopeful statements out of the records. The convention evidently believed that fruitgrowers must still work for the life and health of their trees.

Rejoice and Be Glad.

It is seldom that compliance with this old scriptural injunction is more plainly written upon the human countenance than upon upon the faces of this group of mountain boys which the expert amateur photographer, W. H. Londen, drew up in front of his lenses during a ramble in Sierra county. Modern artists have furnished pansies by the yard and the population has gone into ecstacies over the bright faces they discern on the petals of the flowers, but what is a yard of pansy faces as compared with the full rod of Thanksgiving thus drawn up by the roadside. It is a skillful joymaker who can bring a smile to half the faces he meets, but here is a case in which every countenance is open with delight, and some of the openings are vast—especially upon the left of the picture. Even the central chap, who is too bashful to face the music, has his smile with the rest. The picture is worth study and its effect is irresistible. Even if the reader can find little to rejoice over in his year's work and life, even if his Thanksgiving dinner is a burden we defy him to look from face to face along this gladsome line without getting into a comfortable frame of mind. In fact it is much easier to roar with laughter than to repress a smile. We commend the picture as a Thanksgiving sermon when other prescriptions fail. It will surpass all the exercises of the laughter school curriculum.

THOUGHTS OF THANKSGIVING.—*Photo by Lowden in Sierra County.*

A Promising New Rose.—At the Oakland flower show, noticed in last week's Rural, M. E. Gill the well known Oakland nurseryman and florist, showed a new seedling rose which he has named Sarah Isabella Gill. It is a deep yellow like Perle des Jardins, and has a bud showing something of the Mermet unfolding. It has plenty of substance, and the open rose is a glorious yellow. The bloom is good-sized and apparently comes from a strong growing variety. It seems to us that this new sort will be worth watching, and we shall keep an eye on it. We are not aware whether Mr. Gill has prepared a stock for sale or has it still on trial.

A State Railway.—At the San Jose convention Mr. A. Black of Santa Clara urged that we seek the passage of a Constitutional Amendment permitting the State to bond itself for the construction of a railroad system. He argued that 2 per cent of the assessed valuation would be ample for the purpose. Personally, he would cheerfully contribute his share. He thinks a proposition for the State to issue 3 per cent construction bonds would be a more popular measure.

PACIFIC RURAL PRESS.

By The Dewey Publishing Co.

Office, 220 Market St.; Elevator, 12 Front St., San Francisco., Cal.

Annual Subscription Rate Three Dollars a year. While this notice appears, all subscribers paying $3 in advance will receive 15 months' (one year and 13 weeks) credit. For $2 in advance, 10 months. For $1 in advance, five months. Trial subscriptions for three months, paid in advance, each 60 cents.

ADVERTISING RATES.

	1 Week.	1 Month.	3 Months.	1 Year.
Per Line (agate)	$ .25	$ .50	$ 1.20	$ 4.00
Half inch (1 square	1.00	2.50	6.50	22.00
One inch	1.50	5.00	13.00	42.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type, or in particular parts of the paper, at special rates. Four insertions are rated in a month.

Registered at S. F. Post Office as second-class mail matter.

Our latest forms go to press Wednesday evening.

Any subscriber sending an inquiry on any subject to the Rural Press, with a postage stamp, will receive a reply, either through the columns of the paper or by personal letter. The answer will be given as promptly as practicable.

ALFRED HOLMAN.....General Manager

San Francisco, November 26, 1892.

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BUSINESS ANNOUNCEMENTS.

[NEW THIS ISSUE.]

Spraying Outfits—Woodin & Little.
Agricultural Implements—Byron Jackson.
Agricultural Implements—Baker & Hamilton.
Agricultural Implements—G. G. Wickson & Co.
Orchard Spraying—Fruit Pest Exterminating Co., San Jose.
Fruit Trees—F. Ludemann.
Olive Trees—John S. Calkins, Pomona.
Pianos—Knabe Piano Co., New York.

☞ *See Advertising Columns.*

The Week.

Unless the clouds get all the water squeezed out of them at the north we are now in for a wet Thanksgiving. There have been unusual rains in Washington—great enough in volume to lift the lake levels, swell the streams to flood-breadth, wash away habitations, roads, bridges and railway tracks, arresting travel and bringing considerable losses in some towns and rural regions. When such a storm strikes the north at this time of the year, there is usuaully enough to give California a share of it, and present indications are good for it.

Probably no dispensation could better conduce to thanksgiving than a good drenching of the State. Plowing, seeding, tree and vine-planting are all waiting for soil soaking. Trade, too, always loiters along until spurred on by rural activity and the confidence begotten of a crop prospect. Then merchandise orders are given, implement men shorten up their drooping countenances and lengthen their advertisements, nursery and seedsmen are in their harvest fervor and there is activity everywhere. Such a change the coming storm may work upon rural and urban scenes.

To make way for a day of leisure for our employes the Rural closes its forms earlier than usual this week and will reach readers a day ahead of time. May its early call be welcome.

The World's Fair in August.—California horticulturists who will go to the World's Fair may find August the best month to be there, or at least to include the last half of August and thenceforward while the Eastern autumn fruits come in. August is the month set for the great horticultural gatherings. The World's Horticultural Congress will begin August 16th and hold four days. The Society of American Florists and the American Seed Trade Association and the American Pomological Society will hold their annual meetings during the same month. Therefore the largest possible attendance of horticulturists is anticipated at that time, and Californians can meet their confreres from all the world.

Flowers for the East.—If we have not yet learned to ship flowers to the East, the Easterners may teach us by coming for them. It is reported that Mrs. George M. Pullman and one of her daughters made a flying trip to Oakland from Chicago last week in one of the finest private cars that ever came to the coast. They are said to have purchased $500 worth of flowers in that city and returned with them to the East. Going 2000 miles and back for a nosegay is something the ancients never even dared to attribute to their goddesses. Verily the world moves.

Local Centers of Horticultural Authority.

The most noticeable feature of the recent convention of fruitgrowers at San Jose was a pronounced sentiment against centralization of horticultural authority and influence. This sentiment, in some of its manifestations, was more personal in its drift than we wish it had been. In some of its activity it waged warfare against an individual State officer who has faults, as have other men, but whose course on the whole, has been commendable, and whose services have been valuable. His mistakes and shortcomings should have beem more gently treated in view of the fact that he has labored devotedly and to the extent of his abilities, with good purpose and, in most of his undertakings, with commendable results. We conceive, however, that this element of personal warfare was only incidental, and that the significance of the week's experience was in fact the lesson that conditions now require a wider relegation of power and prerogative to local centers upon which the fruitgrowers can exercise more direct influence in accordance with what they clearly see to be their local needs and local conditions.

California is a great State. Upon geographical considerations alone it is desireable that there should be a tendency now to build up local centers of authority and influence and in minor executive and legislative undertakings, to feel both the responsibility and the stimulus which promote success. Beyond this there lies the fact that generalizations covering too wide ground, either convey local hardships or are too mild to accomplish anything; they either have too great a precentage of misfits or they are too loose to serve the purpose of clothing at all. This is owing to the fact that in different regions different problems arise, different sentiments and dispositions inhere in the people, the problems requiring different solutions, and the people different policies and methods. All these things needful, can be best meted out by local authorities.

There is of course just as great need of central sources of influence aud information and central agencies with powers adequate to action on general propositions. In leading matters of quarantine, in determining the adequacy of general enactments, in publication of facts of general applicability and in instructive digest of the results of local undertakings for the general benefit, there is still full need of central authority and this authority does not become less nor inferior because of the individual activity in local centers. Rather should there be a tendency to elevate the influence and work of the central body. The best of local workers require the highest expert authority to aid them in difficult matters which arisei n their work. We do not see in the disposition to vest more power in the counties any necessary menace to the State Board of Horticulture. It seems to us it should rather stimulate the State Board to higher work, to devote more attention to investigation and experimentation and less to compilation. It has rendered great value in that direction hitherto but the State is advancing in this special knowlege and the call now is for advanced work, new facts about obscure matters which underlie success but which the local executive officers cannot penetrate.

It may be claimed that local regulation of pest destruction cannot be relied upon; that counties have refused to act though the need was great; that county boards of supervisors can be influenced by ignorant Silurians or penurians to withhold funds and thus thwart the work which should go forward with equal pace in all parts of the State. We appreciate the force of this objection, but still are of the opinion that intelligence has advanced so far that the examples of counties which are doing most in pest regulation will be more clearly recognized than formerly, and that if this state of mind has not been reached it will soon come upon the heels of diseased trees and unmerchantable fruit, the significance of which even the most short-sighted must appreciate. In any event, the general sentiment, as disclosed by the discussions and action of the local county officers massed at San Jose, seems to be overwhelmingly in favor of a departure from the method of appointment and central responsibility which has existed during the last two years.

Another clear indication in favor of local centers of action and power is seen in the disposition which was made of the proposition for a central selling institution for dried fruit in San Francisco. The objection was not urged against the symmetry and logic of the plan so much as against the centralization idea, which seems to us clearly impracticable. Local cooperation at the foundation, with such superstructure of conference and uniformity of action toward certain specific ends which are generally desirable, seems to us the method in which we are likely to advance toward a more satisfactory marketing of our fruits. Our people will not delegate their property-rights and freedom of action to any distant authority. They may relegate such rights and freedom to a local board whom they personally know, and for certain purpose, like the fixing of a minimum, as the Fresno raisingrowers did, but we have no hope of any wide adherence to any central system of marketing, no matter how skillfully and logically drawn.

Even though the disposition of the growers as shown at San Jose may seem inharmonious and rebellious against the methods which some of our most devoted and prominent fruitmen have labored to build up, still it must be taken as significant that the people generally are taking more and more interest in the affairs which deeply concern their industrial success, and this is unquestionably a hopeful condition, the beneficial results of which must, perhaps, be patiently awaited.

A Black Sheep and Black Pepsin.

Our readers who have been attracted by the tale of black pepsin, which recently appeared in the Rural, will be interested in the following, which we find in the *Country Gentleman* of last week:

We published last week an exposure of attempted fraud in the matter of a so-called "black pepsin" method of increasing the yield of butter. Information has since reached us that the author of the scheme is one James A. Bain of Ohio, who has been up to tricks of a similar kind heretofore, notably of a swindle in the spring of 1882, in which he signed himself as secretary of a bogus "North American Poultry Association," and offered valuable information about incubators which proved to be worthless. Our correspondent states that Bain has been in State's prison for offenses of the kind, but this we do not know to be a fact. The "black pepsin" stuff was to be obtained for so many stamps of "The Concord Chemical Co.," New York, but it is found on inquiry that no such company exists in that city, and that the postmaster of New York has been requested to forward letters directed to the company to the same postoffice in Ohio which was Bain's location in 1882, on the excuse that a contemplated removal of the company from there to New York had been temporarily postponed.

We supposed that we could recognize this Ohio fraud in any of his works, but though our notice in the Rural of November 12th showed that we had no confidence in any such manipulation of milk being satisfactory in its results, we have to acknowledge that the fabrication of a South Australian dairy society's report to float the stuff was too distant for our near-sighted vision to penetrate. Bain's success seems to be in reclothing old frauds in such new dress that they will pass inspection even by acquaintances. We supposed he had done enough mischief with his "California Cold Process Fruit Preserver" to keep him in funds for a year, but his invention seems exuberant. He is now working several swindles a year and, if reports be true, his old cell in the State's prison must soon welcome him again. Black seems, fittingly enough, a favorite color with him. He blackened salicylic acid in his fruit compound and now he probably blackens common rennet powder and calls it "black pepsin."

As we stated before, it is not new to treat milk with an agent which coagulates the curd in such a way that part of it which should go in the buttermilk is massed with the butter, and the product may be edible and wholesome enough, but it is not butter, nor will it keep like butter. Therefore the dodge has in it some fact and truth, but in the way it is presented it is a snare and a fraud.

There always seems to be plenty of credulous people who will accept agencies for this sort of bogus traffic. At the same time that we were exposing the fraud of the "California Cold Process of Fruit Preservation," as advertised in Eastern papers, there were agents peddling recipes from house to house in San Francisco. Satan seems to gain points in his old age.

A Dairy Conference.—The dairymen of Marin and Sonoma counties have done well to secure audience with their newly elected member of Congress, and State Senator, concerning the influence false products are exerting upon legitimate dairy products. As we go to press, a meeting is being held at the Court House in San Rafael, of which we hope to have a report in a later issue. The Marin *Tocsin* states that Congressman Geary has been considering the details of an act that will put the most stringent checks possible on the sale of oleomargine under the guise of pure butter, with provisions that will guarantee its rigorous enforcement. State Senator Eliot McAllister is also prepared to invoke the powers of the State and will introduce a bill to provide for a Board of Inspection to examine the markets, hotels, etc. and prosecute all who may be found disobeying the existing law. This a wise movement, for there is no doubt that considerable quantities are now being disposed of to an ignorant public, in direct voilation of existing laws.

Oregon Farmers' Institutes.—Farmers' Institutes will be held under the auspices of the Oregon State Agricultural College, this winter, at Salem, Newberg, Milton, Siuslaw, Dallas and Brownsville.

The first meeting is being held this week at Newberg.

The experiments in raising tobacco in Georgia this year have proved very sucessful.

From an Independent Standpoint.

The public intelligence is so habitually befogged by the misrepresentations and false assumptions of partisan newspapers that it is difficult to escape wrong impressions, however honestly one may try to bear the truth in mind. The triumphant Democratic party is just now the victim of a flood of irresponsible talk. The extreme partisan opposing press would have the country believe that the Democrats are pledged to free trade, and that either the party must fail to keep its promises or involve us in the industrial confusion which would follow a radical and immediate change in our tariff policy. A few days ago, at a dinner given in his honor, Mr. Cleveland said: "I am willing that the Democratic party should only succeed by meeting the situation fairly and squarely; by being absolutely and patriotically true to its principles and professions. This is the assured guarantee of success. I know of no other." This has been eagerly accepted as a declaration by the soon-to-be-president that he intends to "go in hot for radical free trade;" and already Mr. Cleveland's critics have arranged for him a scheme involving an extra session of Congress to follow immediately upon his assumption of office, repeal of the existing tariff laws and the substitution of the free-trade principle in the policy of the Government. Now, as a matter of fact, neither the Democratic platform nor any utterance of its candidates puts upon the party any obligation even faintly resembling the plan arranged by the opposing party press. We have read and re-read the tariff plank adopted by the Chicago Convention, and we fail to find any cause for immediate alarm even on the part of those whose interests are bound up in our present tariff policy, excepting possibly a few who are affected by the new and extreme provisions of the McKinley act. Happily no California interest (if we leave out of reckoning the already broken-backed tin-mining enterprise at Temescal) is included in this exception, so that our prune-growers, hop-growers, raisin-packers and others who look to the tariff for protection may rest easy for the present at least. In any event, their interests will be among the last from which the tariff will be removed. The wool-growers stand probably in greater hazard. To permit the readers of the RURAL to refresh their intelligence with the "documents in the case," we re-print in full the tariff plank adopted by the convention which nominated Mr. Cleveland, and which includes all the tariff "promises" to which he has just given renewed assent. The plank is as follows:

We reiterate the oft-repeated doctrines of the Democratic party that the necessity of the Government is the only justification for taxation, and that whenever a tax is unnecessary it is unjustifiable; that when custom-house taxation is levied upon articles of any other kind than those produced in this country, the difference between the cost of labor here and labor abroad, when such a difference exists, fully measures any possible benefits to labor, and that the enormous additional impositions of the existing tariff fall with crushing force upon our farmers and workingmen, and, for the mere advantage of the few whom it enriches, exact from labor a grossly unjust share of the expenses of the Government; and we demand such revision of the tariff laws as will remove their iniquitous inequalities, lighten their impositions and put them on a constitutional and equitable basis.

But in making a reduction of taxes it is not proposed to injure any domestic industries, but rather to promote their healthy growth. From the foundation of the Government the taxes collected at the custom-house have been the chief source of Federal revenue. Such they must continue to be. Moreover, many industries have come to rely upon legislation for their successful continuance, so that any change in the law must be at every step regardful of the labor and capital thus involved. The process of reform must be subject in its execution to this plain dictate of justice.

We denounce the McKinley law as the culminating atrocity of class legislation; we indorse the efforts of the Democrats of the present Congress to modify its most oppressive features in the direction of free raw materials and cheaper manufactured goods that enter into general consumption, and we promise its repeal as one of the beneficent results that will follow the action of the people in entrusting power to the Democratic party. Since the McKinley tariff went into operation there have been ten reductions of the wages of laboring men to one increase, and we point to the dullness and distress, the wage-reductions and strikes in the iron trade as the best evidence that no such prosperity as is claimed has resulted from the McKinley act.

We call the attention of thoughtful Americans to the fact that in 30 years of restrictive taxes against the importation of foreign wealth in exchange for our agricultural surplus the homes and farms of the country have become burdened with real estate mortgages of over $2,500,000,000, exclusive of all other forms of indebtedness; that in one of the chief agricultural States of the West there appear real estate mortgages averaging $165 per capita for the total population, and that similar conditions are shown to exist in other agricultural exporting States. We denounce a policy which fosters no industry so much as it does that of the Sheriff.

In this, surely, there is no promise of immediate and sweeping change—of a change so radical as to revolutionize the industrial system of the country.

As a matter of fact, free trade, or anything very nearly approaching it, is a thing impossible in the present conditions of the Government. The ordinary expenses of the Government are between $350,000,000 and $400,000,000 per year, and the present protective tariff provides about $225,000,000, the rest coming from internal revenue taxes and miscellaneous sources. To enforce free trade, it would be necessary to repeal all the present duties on articles of common and necessary use, retaining only those on the luxuries of the rich, which are properly revenue duties, though they may be incidentally protective. The value of our dutiable imports in 1891 was nearly $500,000,000, of of which a little more than $100,000,000 were articles of luxury and voluntary use. The rest are classified as food products, crude articles, partly manufactured articles, and articles completely manufactured and ready for use. Duties on all these classes of imports must come off, to carry out the free trade idea, to reduce price of articles of common use by a tariff for revenue only. The duty on luxuries is higher than that on other articles, and the $100,000,000 of luxuries imported may yield $75,000,000 of revenue. Retaining these duties, the loss of revenue by taking duty off competitive articles of common use, that price to the consumer may be reduced by foreign competition, will amount to about $150,000,000. This loss, if it should be brought about by change of tariff policy, would leave a deficit in the ordinary expenses of the Government. There is no way to make this up except by an income tax or a re-imposition of duties on sugar or other articles which now come in free. It is safe to say that there will be no haste to substitute a sugar-tax and an income-tax for the tariff-tax.

The RURAL does not seek to make itself an apologist for the Democractic party—it wishes, simply, to give the facts as they stand and to correct if possible the false impressions which, through the pernicious industry of party newspapers and party speakers, appear to have infected the country. On the 4th of next March the Democratic party will find itself in complete control of the country, and it will be its purpose to *modify* the tariff policy. It is pledged to do this; but it is *not* pledged (ten thousand partisan newspapers, to the contrary, notwithstanding) to sweep away the whole tariff scheme and to involve the country in an industrial revolution. It is a serious mistake to confound *promises* and *tendencies*. Of its free trade *tendencies*, protectionists have, indeed, some reason to be concerned. There will, unquestionably, be a strong free-trade element in Congress. There will be an effort on the part of this element to go to extremes; but it is not likely to succeed. The *promises* of the party do not demand free trade or anything like it; the conditions of the country make it an unsafe and an unwise policy at this stage of our development; the sentiment of the country would kill any such project before it could take the form of law. What we may expect is the lopping off of the extreme provisions of the McKinley bill, the placement of timber, coal and (we fear) wool on the free list and a general scaling down of duties where they protect industries which have outgrown their infancy. Saving and excepting the proposition as to wool, we see no reason to regret the prospect. But we should most seriously regret and resent any proposition that, leaving the manufacturer and merchant free to exact protected prices, would condemn the producing farmer and orchardist to forego the small advantage which the tariff gives him.

The arguments for an extra session of Congress to follow immediately upon Mr. Cleveland's assumption of office, rest upon the idea that the tariff policy is to be the object of immediate and determined assault. It is urged that if matters are left to their normal course, Congress will not meet till the December following Mr. Cleveland's inauguration; that it will take six to nine months to frame a new tariff measure, and that it could not go into effect before September or October of 1894, or nearly two years after the party had gotten into power. Furthermore, the new legislation would come into effect just before a general congressional election, upon whose result it might have disastrous effect From the standpoint of the extreme Democratic free traders, this is certainly sound sense; but there is good evidence that Mr. Cleveland does not look at matters from this standpoint in his discouragement of all propositions of a special session. A few days ago the New York *Sun* contained an editorial announcement, from which the following is extracted: "The *Sun* is permitted to announce that it is the present determination of ex-President Cleveland not to call an extra session of Congress after his inauguration March 4th next. It is further announced that in the estimation, at present, of Mr. Cleveland, and his closest friends, that an extra session would turn out to be a profitless proceeding. His friends say that Mr. Cleveland must have time after his inauguration to look over the ground. There is a natural objection also to the assembling of Congress immediately after the inauguration on the ground that it would have more or less of an unsettling influence on the business of the country." To the RURAL it seems that, taking all things together, there can be no doubt that Mr. Cleveland will decline to call an extra session; and, further, that there can be no doubt that he will resolutely oppose any course that will have a tendency to unsettle the business of the country.

It is easy to see that Mr. Cleveland will have to fight the radical free trade element in his party. It goes without question that he will have a great fight on his hands in the matter of adjusting the official patronage of the Government. And to these sources of annoyance there will unquestionably be added a contention within the Democratic party upon the silver question. Mr. Cleveland is a gold-standardist, and his influence imposed upon the Chicago convention a "straddle" on the silver issue; but it is not to be doubted that a vast majority of the party favor free silver without regard to the platform. In the last Ohio State election silver was the main issue with the Democratic party on a square free-coinage platform. Whoever recalls the discussions of the time not only in Ohio, but throughout the country, knows that Democratic sentiment was largely for free silver. Mr. Cleveland checked this sentiment and forced it to silence; but he did not kill it, and it is sure to rise to contest with him the domination of the triumphant party. We see already signs of preparation by the silver men for a direct assault. Repeal of the Sherman act is one of the "promises" which must be fulfilled, and when it comes to a substitute for it there will be music in the air.

The more we study the situation the more difficult Mr. Cleveland's position appears. Elected by political elements totally adverse to each other; having to meet and adjust the conflicting claims of hostile factions for official recognition; subjected to the duty of revolutionizing the administrative organization of the country; under the necessity of carrying out specific promises of reform; exposed to the danger of excessive zeal on the part of his own partisans; face to face with problems which our century of constitutional government has not been able to solve; with enemies not only in front but behind him—thus situated and thus confronted, Grover Cleveland has before him the most difficult duty ever laid upon a President-elect—save alone Abraham Lincoln. It is essentially unfair, ungenerous and un-American to pounce upon a man thus situated and to add to his difficulties by misrepresentation and misconstruction. Fair-minded people, no matter of what political faith, will be willing to give him a chance, reserving their criticism at least until something has been done to merit it.

It will interest many of our readers to know what Gen. Weaver thinks of the result of the national election. In an interview at Des Moines, Iowa, last week, he said:

The populists succeeded in the late election far beyond their expectations, and have demonstrated their strength as a political factor in American politics. We have carried almost as many States as the Republican party has carried, and have been defeated in a half dozen States by very slim margins, which amounts to a practical victory. We hold the balance of power in a large majority of the States of the Union, and, better still, hold the balance of power in the Senate of the United States. This will enable us to act as a breakwater against vicious legislation, and to force the great economic issues to the front. The Republican party is as dead as the Whig party was after the Scott campaign of 1852, and from this forward will rapidly diminish in strength in every State in the Union, and can never make another national campaign. All their great leaders have been killed off, including Depew and McKinley. It was our vote that defeated Harrison in Illinois and sidetracked McKinley in Ohio. The populists will now commence a vigorous campaign and will push the work of organization in every county of the Union. Its organization is now national, extends into every county in the Union, from sea to sea, and from the lakes to the gulf. A conference of leaders will doubtless soon be held at some central point for the purpose of thoroughly marshaling the forces of the new party throughout the country.

The official count in this State is most provokingly slow. It will probably take another week to complete it. Harrison's plurality will probably be a little the rise of 6000. The legislature is surely Democratic. The constitutional amendment extending the legislative session to one hundred days has been beaten ten to one. The amendment allowing cities or towns of 3500 population to make their own charters has been carried. The amendment extending the terms of city and county bonds from 20 to 40 years has been carried. The amendment providing ways and means for State officers to increase their deficiencies has been beaten. The proposition to refund the State debt has been beaten. The proposition for a popular vote for United States Senators has carried by an almost unanimous vote. The San Francisco depot act is probably carried by a narrow majority. The proposition for an educational qualification for voters has been carried.

THE VINEYARD.

Sonoma County Notes.

SANTA ROSA, Nov. 21, 1892.

TO THE EDITOR:—The wine product of California should be recognized as a staple article of commerce as wheat is but few merchants or manufacturers seem to want to trade in it. Why not! If it involves the aging and treating of the wine, then why not have cooperation in the wine districts. If a few San Francisco houses can make large profits so that they can build large warehouses valued in the thousands of dollars, why cannot our vinegrowers club together, get cooperage to hold the wine, and not allow all of the wine product to be rushed in on the wine cellars at one time. The farmers could get the experienced help required to take charge of the wine while it is going through the process of aging. Wine is always low when every one has grapes to sell, but when wine has the age, the same should command a very handsome return for the investment. The vinegrower wants the merchants, both wholesale and retail, to help sell the California product whenever consumers can be induced to take it. It is to be hoped, now that a better price is paid for best grapes, that good wine will only be placed on the Eastern market, and the day will not be far distant when wine will be dealt in, the same as wheat and iron, by all tradesmen.

GRAPE SYRUP.

While visiting Cloverdale, I called at the Moulton Hill vineyard. It is a large establishment and is producing grape syrup. They will produce 10,000 gallons this season. The manufacture was established four years since, and is a most important industry for the grapegrower. Mr. F. Albertz has a patent evaporator, in which he can boil down 4000 gallons of grape juice to 1000 gallons of the syrup in 18 hours. Afterward it is rectified, and filtered, and placed in one-gallon cans and, sold for table use. A large demand has sprung up in the East. The syrup has a pleasant flavor and is as distinctive in its character as maple syrup.

MUST-CONDENSING.

One mile from Geyserville, Sonoma county, a factory is making condensed must from the grapes for shipment. The output in 1891 was 200 tons of must, and in 1892 will be 300 tons, or 1000 barrels of 50 gallons each; the lot being 600 pounds each. I am told that six tons of grapes will produce one ton of must and give also 50 gallons of good brandy—all the refuse being used to bring about this result. The San Francisco office is at 500 California St., S. F., where samples of this new product can be seen.

At Petaluma a starch factory will be established at an early day. The people will give one block of land and have offered to give potatoes valued at $1000 free to help establish such an industry.

A fruitgrower suggests that all the rotten apples or fruit be taken up, or have hogs run in and feed on it. If the waste fruit is not consumed, then the worm will surely come out in due time and go up the tree. W. H. M.

[This is one of the oldest methods known to reduce the number of worms. The trouble is that only a part of them can be reached in this way, for a large part of the worms crawl out of the fruit and hide themselves before the fruit drops from the tree.—ED. PRESS.]

A Cordial Invitation.

EVERGREEN, near San Jose, Nov. 19, 1892.

TO THE EDITOR:—If "Grapegrower" from Glen Ellen thinks it prudent to join an army of half, or whole, bankrupted grapegrowers, he can see, on a visit to my place, many different ways of planting the vine—7x7, 14x3½ ft., 14x14, etc., and I will be glad to explain the advantages and disadvantages of the various systems.

WILLIAM WEHNER.

VITICULTURAL REPORT.—The report of the State Board of Viticulture for 1891-2 is already out, a volume of 280 pages. Any grapegrower or winemaker who desires it should send seven cents postage to "Secretary Vit. Com. 317 Pine St., San Francisco, Cal." Appendix "A" is bound separately, and relates to brandy distilling. It can be secured for four cents postage. The other appendices, some of them translated from the French and German are included in the report and are very valuable. All grapegrowers should apply for these documents.

Correction on Dairy Information.

In our issue of Nov. 12th, page 400, in the third paragraph, the printer makes us say: "Whenever cream cannot be ripened at a lower temperature than 47° there is a great loss of butter-fat." It should have read 67° for ripened cream and 47° or less for sweet cream Any good butter-maker knows that cream would hardly ripen at so low a temperature as 47°, and we very greatly regret the mistake as tending to throw discredit upon the excellent information given by Mr. Steele upon the RURAL and upon scientific dairying in general. We intend to be very careful upon all such points, in view of the fact that so many are disposed to attach more weight to a condemnation of one such error than to commendation of a great mass of valuable information.

A NEW METHOD OF PEELING PEACHES.—A recipe comes to us which says: "Sulphur them about as long as fruit is sulphured, then the peel can be pulled off with a knife." It is suggested that the above plan might be made profitable by using it only for first grade well-ripened peaches, to be first pitted then sulphured, peeled and lightly sulphured a second time. By very careful handling this would make a fancy article.

THE FRUIT GROWERS' CONVENTION.

A "Rural" Reporter Runs Over the Discussions and Gives His Impressions.

The whole meeting bristled with points of practical, dollar-winning wisdom like an Iowa farm house just fitted with lightning rods.

To give a close detail of this great meeting would be out of the question and perhaps our readers will be best pleased with such thoughts as impressed the writer. Let us call such as ran over the grader, winnowed thoughts.

In the address of welcome one is impressed by the remarkable Providence that went on for centuries to form the bed of an inland sea into a vast garden, and later on to bring for its development a race of men who study every element affecting public prosperity from the infusorial life that acts as a cause of fungoid disease in the smallest plant, to the laws of trade and nations that move the commerce of the world, and those higher laws upon which those of man are founded and by which the universe is ruled. Truly nothing that interests mankind escapes the notice of Santa Clara people. They dwell in one great orchard, exploit every market and promise to supply the world with prunes.

THE BATTLE OF THE PARASITES AND INSECTICIDES.

Members of the Convention are divided in opinion as to trusting to the parasites which have been colonized in California, or depending upon the washes and gases that have proven so effective in the past. This difference of opinion existing in the meeting is found all through the country and makes it very hard to promote any uniform policy of destroying insect pests. All agree that some effective means of protection is vital to the welfare of the industry.

In their enthusiasm over the discovery of Australian parasites which keep so many enemies of plant life, at the antipodes, in check, Commissioner Koebele and President Cooper were understood to have expressed the conviction that our troubles are ended in harmony with that law of nature which controls life by the universal edict of "Live and let live." In other words, they claim that we have now discovered many hundred varieties of insects that destroy the enemies of plant life, and it is only a question of development of this idea and successful colonization until all varieties of scale, aphis, codling moth, etc., shall be under control.

On the other hand the advocates of insecticides claim that we know for a certainty that the scale can be kept in check upon deciduous and the smaller citrus trees by washes, and upon the larger citrus trees by fumigation with hydrocyanide gas.

At Riverside, for instance, the city has purchased a complete fumigating outfit, and so soon as the commissioner notifies the authorities that the pest has made its appearance they order a thorough disinfection at once, at the owner's expense. By this plan they have only a very few cases each year.

From the discussion it appeared that there was no question but that the vedalia had been of immense benefit in destroying the scale, but that it was probable that they had not taken the time to catch the last one, nor have they any means to prevent other scales from coming in after the vedalia has finished its work and moved on to to pastures new. One gentlemen reported that a colony of the latest fashion of steel-blue ladybirds, imported from Australia, had disappeared, and that he thought they had been destroyed by a small bird that he saw upon the tree. We hope he may correspond with Mr. Koebele and find out whether they have similar trouble with these little birds in their Australian home. In a science so new to us as entomology we are in danger of generalizing from too few premises and thus fall into error.

Mr. Block of San Jose says that he has observed that it is easy to find these ladybirds at some times and impossible at others. He thinks it is their habit to spend a part of their life where they are hard to find, and it may be that the ladybirds may still be there.

The general sentiment of the convention was that we need very exact and careful knowledge upon the habits of friendly and injurious insects, and then some means of enforcing compliance by all with such means of prevention as seem most economical and effective.

CONFLICT OF AUTHORITY.

To accomplish the protection needed it seems that general harmony and concert of action are necessary. Where the Board of Horticulture is appointed by the Governor and the Horticultural Commissioners are named by supervisors, it does not appear how that essential harmony is to be gained, especially if each is jealous of his own authority. Between counties and State there is liable to arise similar differences to those between State and Federal authority that caused us so much trouble. If civil service rules prevail anywhere, it should be in these offices where science is so closely related to industry. The Horticultural Commissioner who renders service for a nominal stipend, often grudgingly voted by a Board with little conception of the responsibilty of the office, can hardly be expected to give his days and nights to such close study that he may never recommend an injurious or useless wash—that he may always detect at once the advent of any insect enemy, and promote by every means in human power, the increase of insect and feathered friends. Supervisors should regard this appointment as pioneers would have regarded the appointment of a captain who was to organize and command them in protecting their homes against surrounding savages, and choose their brightest citizen who had most interest in the fruit industry. He should be paid as though his services were important, and afforded every facility for acquiring the best and latest information.

Whenever in doubt as to the proper course of action, there should be some standard authority to which he can refer. At both our universities we have bright professors who are devoting their lives to the special study of insect and plant life, and in case the owner whose trees are quarantined or ordered disinfected feels himself aggrieved, the law should designate some one by whom the matter should be decided. There would be little danger of unfair rulings, as scientific men have too high a regard for reputation. Such a course would relieve many hardships and reduce friction in enforcing law.

The Board of Horticulture and Commissioners should be in that thorough sympathy indicated by the text of scripture, "In honor preferring one another."

OVERPRODUCTION.

In Mr. Gordon's able and exhaustive essay entitled "Don't," there seemed to be little left for us but to buy some first-class land in Santa Clara county, at $100 or certainly not more than $150 per acre, give it the best possible care in every detail of planting and developing a prune orchard, and then expect that prunes will be produced so far beyond the world's demand that we can hardly expect to sell them at all. He is one among 10,000, who will ever succeed in carrying out all of Mr. Gordon's excellent directions, and even then it does not look as though there was much left for him to hope for, except to starve, especially if he should neglect the important one of buying first-class Santa Clara land at $100 per acre.

Overproduction is an old story to all of us that we have heard since childhood, and we never yet saw the time when the prophets of evil could not marshal an apalling array of figures. Those opposing the introduction of machinery can paralyze us with the specter of black Ruin coming on a white horse to trample down the last vestige of happiness. Some pioneers have told the writer that in early days they ran their horses to Marysville to spend their gold-dust, fearing that gold would soon be as cheap as iron. When their value as food and cost of production are considered, it will be a cold day for producers of other fruit when French prunes raised in the Santa Clara valley are sold below cost of production. How is the grand-dame who picks up a few windfall apples every day through the fall, and dries them on strings against the south end of the house, ever going to get the money to buy her calico dress when we reach the point where the California prunegrower cannot make a living? Seriously, this is the source of the most severe competition that we have to meet, and if our figures on prospects of fruit-market give unexpected results, it will often be found that we omitted to calculate whether the apple crop was large or small over the country that year.

Now, we have always had an overproduction of the "Don'ts," viz., those who don't serve their fellow-men either by thought or action, and don't forget that the world owes them a living. Tramps don't work and don't want to—a great overproduction. So it is with every line of business requiring little skill, capital or labor. In all the little retail places in the city, we find so great an overproduction that four are waiting to do one man's work, and it is only by hook and crook that the mass of them make a living. There is an overproduction of commissionmen, that drives many a man who would do a square business, under favorable circumstances, into ways that are dark when the wolf stands at the door.

In short, an urban population that comprises half the numbers of a country almost without manufactures shows a great overproduction of nonproducers. If our trades-unions keep on shutting out their own boys from a chance to learn how to make a living, we shall see many of them swelling the army of those who don't stay out of State's prison.

The most dangerous overproduction is of that class who produce nothing. So long as Santa Clara can give us prunes; Marin, butter; Colusa, wheat; Riverside, oranges; Fresno, raisins; and all the others follow with like gifts, our brothers in the East and our cousins across the water will be glad to send us carpets and carriages, coats and dresses, paintings and pianos.

Hopkins, in his Moral Science, says that "supreme happiness consists in the highest activity of the highest powers." Now, if Santa Clara can produce the best prunes in the world; if they are the cheapest and best of all cured fruits from the standpoint of producer and consumer; if they have the best methods and the most intelligent operators in the world; then we think that a bright and industrious man may still hope to make the world pay him a living for raising prunes in Santa Clara by Mr. Gordon's methods. We shall keep on hearing this cry of overproduction so long as we live, but those urging this argument against going into prunes often tell us in the next breath that the business produces a net income all the way from $100 to $1000 per acre.

A STATISTICIAN.

The fact that canners received advices of conditions upon which value of fruit crop rested, so far in advance of the public that they were able to go out and contract fruit at prices that afterward proved hundreds of thousands of dollars below actual value of fruit; that commission-men

received advices so far in advance that a buyer was able to secure most of the Ventura apricots at $15 per ton when Santa Clara people, by a little better knowledge of market conditions, generally realized $30 for similar fruit; and many other instances of like character, impressed upon the convention the importance of taking some measures to secure more complete and accurate information than is now available to the public. It was thought that this might be obtained by some one well-skilled in knowledge of conditions that fix prices, who should regularly correspond with Consuls in the principal producing sections of Spain, France, Italy and other foreign countries that come in competition with our product, also with representatives of our Government and leading dealers in all countries where we hope to find markets; and by cooperating with the Agricultural Department at Washington to secure early, and on some occasions telegraphic advices, of conditions of fruit crops in the East. Such information would be news that the daily papers would eagerly circulate. The State Board of Trade has already done some work of this nature in seeking a European market for fruit products. The difficulty of maintaining any continued and systematic public service by voluntary subscriptions, and the importance of this work to the fruit industry, led them to seek some means of having it done by the State.

DRIED FRUIT EXCHANGE.

To the elaborate plan of Mr. A. L. Bancroft—published elsewhere—it was objected:

1st—That it was in the interest of building up a commercial center rather than the towns where the fruit was produced.

2d—That it placed another agency between producers and consumers, when there are too many barriers already.

3d—That it took the goods out of owner's control for at least six months, while it left buyers free to gather in outside lots and break the market.

4th—That it would be next to impossible to secure a general adoption of this plan by proceeding to organize from the top down, as would be contemplated by starting with a State organization.

LOCAL COOPERATION.

Col. Hersey and others gave careful and detailed statements of two of the most successful and best managed cooperative enterprises that have ever been brought to public notice. A great many members of the convention visited the West Side and Campbell fruit-drying plants, where operations have just been closed for the season, to see how it was done. Mr. E. F. Adams, of Wrights, is energetically at work organizing other enterprises of a similar nature, and they have in mind to manage the general interests very much as the butter business is managed at Elgin. By this means San Jose may hope to retain her prestige and fix the price of prunes as Elgin fixes that of butter. It is equally desirable that similar enterprises be organized in other places. They are needed in Vacaville, Winters, Suisun, Woodland, Marysville, Chico, Gridley, Petaluma, Santa Rosa, Sacramento (and while they are doing pretty well with their organization in Fresno), something is needed in Hanford, Visalia, Tulare and Bakersfield. When cooperative enterprises are organized in these sections and the many others that need them, all can unite in a State organization to secure market information. Col. Hersey says that their success in marketing this year was due largely to information obtained at a cost of $3000 by joining with five commission men of San Francisco. He did not say whether it was the total expense or only their part, but we presumed it represented $500 each for the six interests represented, as he said he personally could well afford and would gladly give $100 annually for such information. We don't think of anything likely to interest our readers—especially such as have been trained by Grange and Alliance to cooperative ideas—more than a careful plan for local fruit exchanges. We are thinking of such a plan as would be matured by a committee like Col. Philo Hersey, Col. R. P. McGlincy, Mr. E. F. Adams and Mr. F. M. Righter as the result of their successful experience.

Nothing will do more to promote development and increase prosperity in sections just engaging in fruit culture. That such committee was not appointed and the convention more thoroughly impressed with the methods and advantages of forming similar exchanges, seems to us unfinished business of the session, and we hope it will be taken up at once. We cannot afford to wait till next year. When such exchanges have formed a State organization it can do something to extend markets in England and can so regulate trade that our cured fruits will be thoroughly advertised, properly graded, and sold in groceries throughout the country as *staples*, on a basis of profit similar to that charged on flour, sugar, etc. They will soon inaugurate the system of shipping direct in carload lots to every dealer in the country who can handle that quantity. A statistician employed by the State could only advise regarding supply and demand, and investigate conditions which regulate markets. A State Exchange could do that and supply many conditions that regulate markets in their products. Among other things, they could establish standard grades so that the buyer of cured fruit would have a guarantee of quality similar to that existing in well-known brands of sugar or flour. That is one among the needed improvements for extending our markets, especially in England.

THE RAILROAD QUESTION.

The president's address was very strong in its recommendation of Government railroads. The committee to whom it was referred reported that since it is not the established policy of our Government to engage in such enterprise, the prospect of its accomplishment is too remote to warrant a recommendation from this body for legislative action. It took the ground that railroads were subject by law to the control of the people and it would be wiser for them to exercise that right than to venture upon a field of doubtful expediency. Although there were several who held very strong grounds in opposition to this report, it seemed to embody the general sentiment of the convention. It was generally agreed that schedule time and wider distribution were questions even more important to shippers of green fruit than rates.

It was expected that the inability of the company to supply the cars needed to make their expedited service effective would have been considered, and that some representative would have advised the convention regarding plans for improved service next year. It was also expected that a plan for private ownership and control of fruitcars, similar to the system of the great wholesale butchers, would be discussed. They have been able to concentrate that line of business at Chicago, Omaha and Kansas City, and control it mainly by use of refrigerator cars.

In our case, the Riverside and Vacaville men might unite in ownership of a line that would accommodate the one section in summer and the other in winter.

Again, it was hoped that the opinion of the convention might be drawn out as to the expediency of distributing fruit direct to towns whose trade would not warrant them in ordering carload lots. This was an important feature of Mr. Mills' address, which was distributed through the hall. The committee appointed to consider the subject asked for further time, and their report will probably be made through the press. It was a misfortune to the convention that Mr. Mills was prevented by illness from sharing in its deliberations.

To develop the possibilities of our State, we need a vast increase of population that we cannot conscientiously or successfully invite, save, as we can point out to them promising fields of labor. As fruit is that basis of industry for which our soil and climate gives us greatest advantage, the production and distribution of this crop are questions most intimately connected with our future prospects.

THE NICARAGUA CANAL.

A revolution urging the policy of immediate action by the General Government looking to its construction and depicting dangers, likely to arise from private control, was thought by some to be among the most vital interests affecting growers of fruit. Although the plan seemed to meet approval in a general way, only a few members of the Convention seemed to have considered the subject, in all its bearings to the extent that they were willing to put themselves upon record. It is a very broad question, and with many of us the battle of the man and the morfgage will be decided before it can be completed. Those who had discussed the question from the platform of the People's Party. seemed quite positive in their views of its expediency.

FORESTRY.

Attention was called to the importance of preserving our forests, by reference to famine arising from drought in Russia, since forests have been denuded, also from calamities in many other parts of the world arising from a similar cause. It was another point of unfinished business that the body only discussed the question in a general way, and failed to formulate any plan looking to definite action. The writer has driven through many of the forests of the Sierras and the coast during the past year and thinks it should be the Government policy to sell stumpage, rather than timber land, so that the trees might be allowed to grow up again after the ground had once been cut over, and so preserve the water sheds upon which the productiveness of our great valleys depend. If it would be good public policy to build mountain reservoirs in all such places as the Big Meadows of Plumas County how much better to provide that the trees and undergrowth, that attract and conserve that moisture, should be protected. Again, the interest on the money that the land brings would be but a trifle of the revenue that stumpage would yield. Let us settle the rich valley lands that are already cleared and keep the trees where they will supply them with the moisture that is as essential as soil or sunshine.

RETAIL DISTRIBUTION.

The necessity for improvement in this regard was touched upon, but scarcely discussed. It appears that so many are engaged in the retail trade that the most of the price paid by the consumer goes for rent and service, while waiting for custom. So long as three men are competing for the trade that one might easily handle, and all must live, it is hardly practical for them to reduce prices. Yet the $2.50 of the $3 00 that a 50 cent box of pears now brings when sold at retail, goes as far to check consumption, as though it was paid to the producer or the railroad company.

If by adopting a system of distribution similar to that of milk dealers, a part of the retailers could do the whole business, and the balance join the company of producers, the community as a whole would have that much more to divide. Some would go to producers, some to consumers. The dealers displaced would find a better occupation and and all be gainers. Things have not improved, much along this line in our home markets since early days, and we may grow very weary waiting for the natural laws of trade to accomplish desired results.

THE WORLD'S FAIR.

Prof. E. E. Smith of Palo Alto and Prof. George Hussman of Napa, had both visited Chicago recently and interviewed Chief Samuels of the Horticultural Department. They all realize the importance of making a creditable exhibit of our resources, especially in the line of fruit, which is becoming generally recognized as our basis industry.

It seems that there is a deplorable lack of interest, more especially in Northern California, and that counties and individual enterprise must be relied on to furnish exhibits, as the State can do little more than to furnish space, transportation and care for such as are shown in the State Building.

As our attention has been chiefly directed to that it seems that we are likely to suffer in the Department Building where our goods come in competition with other sections for prizes.

After our liberal appropriation it would be humiliating indeed to see such a State as Arkansas carry off the bulk of the gold medals with two or three wagon loads of carefully selected specimens. In the Department building, where fruits are entered for competition, they want small quantities of the very finest fruit we can produce.

Besides what has already been preserved in glass it may be possible to strongly reenforce our exhibit next June and July with specimens forwarded from here and put in jars there, in time for the Horticultural Congress, to be held early in August. It will be important to see that space is provided if we think of entering the lists at that late day against those who have already been a year or two engaged in pruning and fertilizing the trees from which they expect the prize fruits.

In the California building the two plans of county and classified exhibits call for duplicate samples. For instance, Fresno wants to show by her classified raisin exhibit the precedence taken by her county in that industry, and yet raisins will be a leading feature of her county exhibit, although wheat still leads in acres and struggles for the lead in dollars, even in Fresno. Most of the fruitgrowers learned for the first time that they were depended on for an exhibit in triplicate, one for the county and another for the classified in the State building and a third for competition in the Department building.

Mr. C. M. Wells, from Los Angeles, the Horticultural Officer, made a very interesting explanation of the matter.

FERTILIZATION.

This subject was discussed in a way that shows that the idea that our soil and climate can produce fruit without limit, forever, and suffer no exhaustion, is being consigned to "innocuous desuetude," as one must say now that the author has returned to power. No one spoke of having tried any fertilizer without very satisfactory results. Some have used nitrates; some phosphates; some stable manure; some had cut their grape cuttings into short lengths and returned them to the soil; some had returned the pits to the soil on the theory that as the pit, and not the pulp, draws on the vitality of the plant, and the strength of the soil, it should be returned to the soil whenever possible,—but never burned.

W. H Aiken of Wrights had excellent results frow plowing under one or two crops of wild oats and alfileria every spring, and this year had harvested the largest yield of prunes received anywhere in his section from ground that has been treated for several years in this way. Geo. M. Gray of Chico had tried to follow his recommendation, but rain hindered his plowing, and the grass grew so strong that it almost held up the mules, and it was impossible to get the land in condition at all that year.

It is evident that there is a demand for the services of some expert intensely practical in his advice as to the most economical method of producing best results in each case. The average farmer has too many questions to strictly give the scientific attention necessary to determine what his soil needs and the cheapest way to get it, as one who made it his special study might. It seems that there should have been more discussion as to methods of determining the value of commercial fertilizers. They already use great quantities with highly satisfactory results in Southern California, and the business is destined to assume great proportions among our orchards.

PRUNING.

Although there were some radical departures advised by those who related individual experiences; the majority were quite willing that the promoters should have exclusive benefit of most of them, being content to abide by the old and well-established systems of pruning for low heads, stocky trunks, and in the case of most fruits the goblet system, upon which most of the Vacaville orchards have been trained under advice of Mr. Smith, as often described in these columns, and carefully illustrated in "California Fruit." A new point was brought out which seemed worthy of trial, viz:

In case of trees that have become apparently dormant so far as producing wood or fruit is concerned, it has been found good practice to cut off the fruit buds for one season and has resulted in a satisfactory growth of wood and a good crop of fruit the second year.

The general practice seemed quite opposed to shortening in prunes, pears and apples, as is advised with peaches and apricots. Instead, let branches be trimmed to prevent chafing upon one another, or the fruit being too much shaded. Where two branches fork at one acute angle, and it is desired to remove one, Col. Hersey advised removing the lower, and made the point that by following the usual course of removing the upper, with a view of spreading the tree, the branch is liable to break down. When loaded with fruit, pruning should be very carefully and systematically performed upon a well matured pear designed to develop vigor, fruitfulness and symmetry, and varied with the needs of the individual plant.

THINNING.

The importance of thorough work in this direction, especially with peaches, was generally recognized. Some advised pruning so short as to avoid the necessity of extensive thinning; but the general opinion was that it was well to do the work after the pit had formed and before it had hardened, and thin so thoroughly as to insure large size. Small peaches are of little value, and the vitality of the tree is drawn upon in proportion to the number rather than the weight of peaches. Mr. McWilliams, who has extensive fruit interests near Colusa, gave it as his rule to leave four peaches for every pound that the tree ought to bear. Perhaps this was the most heroic, and probably the most judicious, thinning recommended. With the apricot the case is very similar. It is a great deal of work to thin fruit, but nothing pays better.

GRADING.

This was an important subject, whose discussion was conspicuous by its omission. This is much to be regretted, as all varieties of graders are in general use in San Jose, and the importance of the process is thoroughly understood. Again, it is probable San Jose growers are the most thoroughly impressed with the necessity of placing well-known brands of standard quality upon the market, and it would

have been very interesting to members from other sections to have heard the question well discussed. It should be considered unfinished business.

IRRIGATION.

As the prune crop was nearly 50 per cent short in San Jose this year, and the past two seasons have been characterized by light rainfalls, many are convinced of the necessity of a limited amount of irrigation, even in the valley which boasts so proudly that irrigation is unnecessary. The paper of Mr. Brainard was a very able presentation of the irrigation problem in Santa Clara valley, but the question did not excite the interest nor elicit the information that so important a subject should draw out from so distinguished an audience. Perhaps nothing is destined to become so important a factor in horticulture as irrigation. Probably it will be more thoroughly discussed next year at Los Angeles, where the wonderful development at Riverside and Redlands came as the result of irrigation.

COULURE.

Mr. N. W. Motheral of Tulare read a paper showing that the dropping of the fruit in the San Joaquin raisin districts was caused by the deposit on the leaves of some salt contained in the sap. The discussion developed the fact that instead of being a specific disease, coulure is a general name for the dropping of fruit from whatever cause. Anything which prevents the fertilization of the flower produces this result. It affects the white grapes, especially the Muscat, and the Black Ferrara. Dr. Blowers of Woodland, who is one of the closest observers in horticultural matters that the State ever produced, spoke of spending hours and days among the vines, watching the action of the thrip, the north wind and other causes that produce coulure. Next year at Los Angeles we hope to hear more suggestions as to remedies. The destruction of the thrip and the correction of the alkali causing so much coulure in the San Joaquin, are promising fields for scientific investigation. Mildew is a fourth cause of coulure.

ROOT KNOT.

This disease upon the root has lately caused wide destruction among young peach trees, especially those in the San Joaquin valley that have been planted upon soil previously cropped in alfalfa. Some benefit has resulted from paring roots and applying salt. For some years the trees thus affected have borne well, unless the knot encircled the crown of the root. In this case the knot seems to smother the plant. Here is another of the questions upon which we want light.

BLIGHT.

This was not much discussed in open meeting, but from fireside discussions at the hotel the writer thought that there was an amount of ignorance upon this subject that was liable to do more damage to our fruit interests than the blight itself. Prof. Woodworth of Berkeley has made it a microscopic study and can explain the peculiar bacteria in trees thus affected. It would be a good thing if he would contribute an article to the RURAL on this point and prevent our experts from driving us into hysterics whenever they see a black leaf or an injured strip of bark.

ARSENITES.

The same professor read a paper on insecticides in which arsenic is the active ingredient. Their value depends mainly upon insolubility. Paris green, a copper arsenite, is best and most costly. London purple, a lime arsenite, comes next. White arsenic is most soluble. Such preparations should be kept thoroughly stirred and deposited in a fine mist until leaves begin to drip, for the destruction of such insects as feed upon leaves or fruit. The professor proposes a series of experiments with spray pumps at Berkeley. His idea is that we might secure better and more economical results with less force and a finer spray. For fungoid and unknown diseases he recommends the Bordeaux mixture of bluestone and lime.

WOMAN'S WORK.

Mrs. Theodosia B. Shephard of Santa Barbara read a very interesting paper showing how a woman of energy built up a business, by her own exertions, from small beginnings, that bids fair to become a very important industry. Her specialties are flower seeds and bulbs, and she finds no part of the business so difficult as judicious advertising. She engaged in the business upon the advice of Peter Henderson and thinks California will become the seed garden of the world.

Mrs. McBride gave a very interesting account of her experience with her four young sons in what seems to be so nearly a model orchard as to assure women that horticulture is a calling in which they can hope to rival their brothers, and that it is both attractive and profitable.

Mrs. Maggie Downing Brainard favored the audience with an essay relating an experience in Mississippi very similar to that of Mrs. Shephard in Santa Barbara. In another essay she gave us a charming picture of home adornment.

Mrs. Hattie Jones of Sacramento was called upon for an extempore account of her orchard experience, which was very favorable and encourages perseverance.

THE NORMAL SCHOOL.

Nearly one hundred of us visited the school and listened to the six hundred students solemnly chanting the Lord's Prayer. Later they sang America and the Star Spangled Banner. All exercises were impressively rendered in a manner that brought out the distinct sound of every word and the voices seemed so modulated as to exactly fill the room.

The training school department, where teachers receive several months practice under critic teachers before graduating, was a very interesting room, also the kindergarten. The new costume for ladies may be briefly described as Zouave pants with overskirt, which is removed during gymnastic exercise. A part of the girls and the teacher had adopted the new costume, and when called upon to stand up they seemed the most attractive girls in the crowd, besides their movements are more free, as there is nothing to impede action. It is to be hoped that they will all prove enthusiastic advocates of this sensible dress reform.

In the Manual Labor Department each student was making a telescope. These cost $1 75 for materials and Prof. Barnard says that they will answer the purpose of a student for the first two years as well as one that would cost $65. Teachers are taught to make such apparatus as is commonly required for experiments in the public school. One of our party had it fixed up that the girls were expecting to teach school long enough to buy a bill of lumber and then make it into a house.

INSPECTION OF THE VALLEY.

Our party was driven twenty-five miles, passing El Quito Olive Farm, Los Gatos, and the West Side Cooperative Fruit Drying Establishment. At El Quito we were treated to red and white wine, grapes and oil. Mr. Goodrich's new varieties of the olives, most appreciated in Tuscany, are just coming into bearing, and we had the pleasure of comparing the oil with that of the Misslon. The writer is an expert judge of butter, and following out similar rules he would say that the difference in flavor represented $2 00 per gallon in favor of the oil made from the Corragiolio and Grossai's olives.

Mr. Goodrich says there is little choice between them, but thinks both are better than the Mission, aside from the quality of the oil.

Signor Barzelotti, who was educated as a scientific agriculturist in Italy and is an expert on oil and wine, says that we have at least six varieties among the 250 in Italy that are known here as the Mission. Among these is the Rubra, that is held in very high esteem in the old country. Probably the Fathers brought a few of the staple varieties of their day and propagated from them.

An experiment of Signor Barzelloti with red wine seemed quite as promising as that of the introduction of the new olives. It is certainly to be hoped we have gained another point in establishing a better foundation for the reputation of our wine. Such confidence is felt that Mr. Goodrich and other friends have joined with Signor Barzelotti in the purchase of an extensive tract at Morgan Hill that they are preparing for a vineyard, in spite of the doleful Jeremiad that the writer heard at a late meeting of wine growers at San Jose.

To hear them talk one would think that any one who had a wine vineyard would do better to grub it up and turn it into a sheep pasture rather than continue the business.

ENTERTAINMENT.

One evening was devoted to an excellent musical entertainment and social converse with the people of San Jose. In the meantime a very interesting discussion was going on in a committee-room, where they were telling their experience with hydrocyanide gas and with various washes in fumigating and cleaning citrus trees.

It seemed that washes would do very well for small trees, and were only about half the expense of fumigation, but must be done twice as often. For large trees, anything short of fumigation was hardly worth considering.

The writer was very sorry that he could not attend meetings of the commissioners and the convention at the same time, and thus compile a fair review of the information developed. He was obliged to slight one meeting or the other.

It is a great advantage to a presiding officer at such a meeting, not only to have a good general knowledge of parliamentary law, but also of all subjects under discussion, and such an acquaintance with members as to know who is in possession of most accurate information upon any subject of inquiry that may arise. It would be a good plan, in giving introductions at such places, if the custom should be established of using such words as indicate the line of information to be expected from each of the parties introduced. Conversation would naturally turn to those topics, and we should learn much more rapidly where to seek information.

It is a good lawer who knows where to find the law, and one of the main reasons why Governor Hoard of Wisconsin is so successful in presiding at dairy meetings is because he keeps fully abreast of the latest improvements in all branches of the industry and a very exact knowledge of the specialty of each member in attendance. When a point of information is called for, he knows the right man to call out, and is very careful not to allow a question to be passed without appropriate action.

In arranging the program he knows about the time that will be required by each discussion, something of the manner in which it will be opened and is very careful to see that it is lively and that information is drawn out.

A man may be bubbling over with information and still keep it to himself through diffidence unless called out. Those best qualified are by no means the most ready to speak.

The program of the conventions there is made attractive by giving points to be discussed on each subject and two or three lines by way of introducing the essayist, who is to lead the discussion. Dairy institutes and dairy exchanges have revolutionized that industry in the Northwest. Let us not admit that a more intelligent body of farmers assemble in the United States than composes the Fruitgrowers' Convention of California, but let us avail ourselves of every suggestion we can draw from the experience of others.

In arranging for the next convention let us not forget the bead knot and coulure; plans for distribution to interior Eastern points, more economical retailing, better regulated transportation, a standard authority for disputed questions on insects and plant diseases, plans for local and general fruit exchanges, quarantine regulations and improved methods of drawing out attendance, securing complete information and crystallizing it in shape for appropriate action.

The Attendance.

Following is a list of persons registered as visitors (and participants) in the convention:

R. P. McGlincy, Campbell.
A. M. McGlincy, Campbell.
Wm. Beauchamp, San Jose.
C. Sawtelle, Healdsburg
M. Wingate, Campbell.
Mrs. A. C. Wingate, Campbell.
Miss A. H. Phelps, Campbell.
Hattie B Wells, Campbell.
J. R. Totman, Colusa.
Ed. F Adams, Wright.
D. B. Wier, San Francisco.
E. W. Maslin, " "
Henry D. Brainard, San Jose.
F. B. A Lewis, San Jose.
Ed. Berwick, Monterey.
G. W. Wood, Visalia.
T. W. Rich, Visalia.
Levi Matthewson, Visalia
L. F. Sanderson, San Jose.
J. M. Knight, Los Gatos.
J. S. Frost, Lawrence.
A. Block, Santa Clara.
Hiram Cornell, Lodi.
J. H. Thomas, Visalia.
J. H. Birge, San Jose.
W. H Aiken, Santa Cruz
Mrs. W. H. Aiken, Santa Cruz.
A. M. Henkle, San Francisco.
Lawrence Russell; Saratoga.
G. W. Hutchins, Marysville.
A. P. Stratton, Walnut Height.
Irvin E. Pomeroy, Santa Clara.
B. C. Anderson, Visalia.
Geo. A. Meeker, Yuba City.
D. R. Shafer, Orosi, Tulare Co.
Enoch Gates, Napa.
A. F. White, Santa Rosa.
B. F. Walton, Yuba City.
Thos. B. Hutchins, Gridley.
J, B. Cory, Lodi.
Sam'l I. Haines, Santa Clara
G. H. Hills, Sommerville, Mass,
W. M. Herrold, San Jose.
Mrs, G. F. Starr, Yuba City.
Mrs. T. B. Hutchins, Gridley.
L. B. Walton, Yuba City.
E B Starr, Yuba City.
E. T. Pettit, San Jose.
Fred C. Miles, Perryn.
C. E. Mack, Sacramento.
Wm. E Barker, Jr; Yuba City.
G. W. Tarleton, San Jose
V. P. Richards, College Park.
Dora Kells, Yuba City.
Mrs. Hattie S. Jones, Sacramento.
Mrs. R. C. Kells, Yuba City.
C A. Kohner, Santa Clara.
R. Wheeler, San Francisco.
Wm. Barry, Alameda
Wm. Weaver, Anderson.
I. B. Quigley, Sacramento.
G. W Worthen, San Jose.
Jonas J. Morrison, San Francisco.
T. Archibald, Los Gatos.
W. H. Buck, Vacaville.
J. L. Mosher, San Jose.
J. A. McCune, Watsonville.
Dr. N. H. Claflin, Riverside.
Mrs. N. H. Claflin, Riverside.
Mrs. A. W. Parks, Marysville.
G. A. Parks, Marysville.
Harold O. H. Shelley, Berryessa.
B. O. Curry, Los Gatos.
C. L. Hanson, Chino
N. Wagenseller, Ukiah.
E. Leedhan, Arroyo Grande.
T G. Bahlender, Chico.
G. W. Rogers, Santa Rosa.
W. D. White, Ukiah.
J. A. Scholefield, Hollister.
Ernest A. Gammon, Cortland.
Frank E. Mitchell, Gubserville.
T. W. Mitchell, Los Gatos.
P. D Green, Cortland.
Mrs P. D. Green, Cortland.
D. J Parnecle, Vacaville
Alex Gordon, Fresno.
Mrs. Sol. Runyon, Cortland.
Miss Ora Runyon, Cortland.
Jno. Crofton, Cortland.
Mrs. Jno. Crofton, Cortland.
Samuel Stewart, Suisun.
M. Madge, Walnut Grove.
D. J. Hawkins, Anderson
A. P. Heuning, Cottonwood.
J. A. Brandstatt, Yuba City.
Amy Brandstatt, Yuba City.
Daniel Flint, Sacramento.
H. C. Hogg, San Jose.
G. A. Watertown, Barlow, England.
A. L. Bancroft, San Francisco.
W. B. Baker, San Jose.
T. E. Gibson, San Jose.
C. M. Heintz, Los Angeles.
I. B. Jonson, San Jose.
F. W. Crandall, Los Gatos.
W. H. Gilmore, San Jose.
J. A. Kleiser, Cloverdale.
J. B. Waterman, Los Gatos.
W. W. Chamberlain, Suisul.
Isaac M. Coe, San Jose.
Ed. M. Ehrhorn, Mountain View.
Chas. W. Chapin, Mountain View.
J. L. Blair, Sierra Madre.
J. A. Webster, Vacaville.
G. W. Wagner, Yuba City.
F. M. Ensign, Yuba City.
J. W. Mills, Marysville
W. S. Edwards, Los Gatos
J A. Eveleth, Santa Rosa.
Mrs. M R. Cole, San Jose
L. Weity, Farmington
Jos. Schupp, San Jose.
T. L. Gates, Vacaville.
W. D Davis, Santa Rosa
Mrs. W. D. Davis, Santa Rosa.
Miss Davis, Santa Rosa.
N. H. Wood, Napa.
Mrs. Wood, Napa.
R. W. Rice, Fresno.
John Duncan, Campbell.
S. M. Locke, Santa Cruz.
G. T. Duncan, Campbell
Chas. Spreckelsen, Santa Cruz.
R. N. Rowley, San Francisco.
Emory E. Smith, Palo Alto.
W. E. Collins, Ontario
H. W. Hall, Camp Grant.
M. F. Bishop, San Jose.
Maj. C. J. Berry, Visalia.
Jno. Scott, Duarte
Eben Boalt, Palermo.
Lewis T. Cowin, Fresno.
Noah G. Rogers, Los Gatos.
Geo. M. Gray, Chico
Hiram Hamilton, Orange.
O B Shaw, Sonoma.
R. C. Kellis, Yuba City.
J. B J. Portal, San Jose.
A. M. Matthewson, Visalia.
C. F. Adams, Newcastle
A. A. Hyatt, Vacaville.
Geo. H. Start, San Jose.
W. H Atkinson, Napa.
F. H. Cook, Napa.
Leonard Coates, Napa.
A. S. McWilliams, San Jose.
D. O. Anderson, Bakersfield.
M. J Worthen, San Jose
F. A. Kimball, National City.
F. B. Crosier, El Cajon.
A. Walider Crow, San Francisco.
C. S Aiken, San Francisco.
Miss F. C. Aiken, Berkeley.
C. W. Brett, San Jose.
Mrs. H A. Brainard, San Jose.
Jos. Marshall, Vacaville.
Mrs. Jos Marshall, Vacaville.
M. Milzner, Vacaville.
Jno. Flack, Healdsburg.
John A. Flack, Healdsburg.
Wm. Johnston, Cortland.
H. A. Gear, Cortland.
R. B. Blowers, Woodland.
T. H. Ryder, Woodland.
Robt. Williamson Sacramento.
Edward Berwick, Monterey.
Mrs. Edward Berwick, Monterey.
Miss Mabel Berwick, Monterey.
Miss Ella Berwick, Monterey.
C. A. Stowe, Laurel.
E. J. Stowe, Laurel.
Mrs. R. C. Holland, Evergreen.
J. P. Onstott, Yuba City,
Jas. E. Gordon, Saratoga.
C. W. Reed, Sacramento.
A. D. Cutts, Marysville.
H. J. Langdon, Oroville.
Geo. Deitzler, Biggs.
Geo. C. Roeding, Fresno.
Geo. W. Harney, Marysville.
P. C. Scott, Red Bluff.
Chas. H. Allen, San Jose.
N. M. P. Close, Tustin.
D. C. Crummey, Los Gatos.
L. U. McCann, Santa Cruz.
Geo. Hussmann, Napa.
A. S. Atchley, San Jose.
N. W. Motheral, Hanford.
A. W. Crow, Lawrence.
Leigh Overman, Hanford.
Fred. Hauss, Yuba City.
J. H. Gray, Yuba City.
L. D. Green, Walnut Grove.
Mrs. L. D. Green, Walnut Grove.
D. Browning, Los Gatos.
T. H. Ramsey, Woodside.
J. F. Gilmen, San Jose.
Mrs. C. Rogers, Modesto.
B. M. Lelong, San Francisco.
Mrs. B. Lelong, San Francisco.
F. P. Sheldon, San Francisco.
O. McHenry, Modesto
J. M. Alexander, Oakland.
J. H. Summer, Happy Valley.
Jonathan Hague, Antioch.
M. C. Parkinson, Antioch.
H. M. Alexander, Anderson.
H. W. Cate, San Jose.
B. W. Cortlant, Los Gatos.
Mrs A. V. Huntling, Los Gatos.
F. Von Dorsten, San Jose.
O. F Von Dorsten, San Jose.
E. T. Huntling, Los Gatos
C W. Proctor, Cupertino.
V. T. Dunlap, Hanford.
F. A. Ring, Oakland.
D H. Towne, Hanford.
Mrs. C. L. White, Santa Rosa.
O. U. Maulsby and fam, Santa Maria.
Mrs. Georgie McBride, San Jose.
N. A. Sanders, San Jose.
Geo. A. Daggett, Santa Clara.
Chas. H. Neitzet, Suisun.
J. Powell, San Jose.
A. A. Hibbard, Chico.
R. W. Bell, Santa Rosa.
Peter Engel, Marysville
J. F. Meeks, San Francisco.
J. M. Kerlinger, San Jose.
A. C. May, San Jose.
F. M. Righter, Campbell.
M. Braughler, Santa Rosa.
Mrs. Jas. E. Gordon, San Jose.
Gen. N. P Chipman, Red Bluff.
T. B. Hull, Sutter Co.
M. N. Williamson, Sacramento.
W. W. Gillett, Palermo.
Thos. Derby, New Almaden.
J. Howard Derby, San Jose.
Theo. Demling, Sacramento.
Wm. H. Robinson, Stockton.
Jos. Hale, Stockton.
Irving Blowers, Woodland.
M. Smith, San Jose.
F. L. Tieston, San Jose.
Geo. Thresher, Gridley.
L. Walker, Ventura.
A Vollmar, Los Gatos.
Geo. A. Freeman, San Juan.
Mrs. Geo. A. Freeman, San Juan.
J A. Cavton, San Jose.
Mrs. L M. Norris, San Jose.
Mrs. S. P. Stewart, Inyo Co.
Mrs. A. M Russell, ———
Mrs. E S Dennison, Oakland.
Miss Lulu Dennison, Oakland.
Miss Ollie Dennison, Oakland.
Mrs N. M. Fraser, Oakland.
H. Hotchkiss, Gubserville.
J. M. Haskins, San Jose.
F M Tenney, San Jose.
S. P. Sanders, San Jose.
Mrs. S P. Sanders, San Jose.
Jas Huston, Santa Maria.
M Van Gelder, Acampo.
H. C. Blake, Vacaville.
H. H. Hunting, San Jose.
J. Blaine, San Jose.
C. S Brolly, Saratoga.
W. E. Ward, San Jose.
P. H. Blanchard, San Jose.
W. R. Strong, Sacramento.
F. H Newell, Washington, D. C.
Wm. Eckels, Lincoln, Neb.
Franklin Dexter, Saratoga.
E M. Thomas, San Jose.
Alice Charey Waterman, New Mexico.
A. Bermake San Jose.
G. W. Dodge, Winters.
W. F. Bracker, Santa Clara.
Geo E Hyde, Gubserville.
Warren E Hyde, Gubserville.
S. J Stabler, Oakland.
Alice E. Stabler, Oakland.
Mrs. Mary S Smith, Sutter Co.
Norman Dunbar, Cupertino.
D. H. Gonzales, West Side.
C. W. Woodworth, Berkeley.
F. G. Jefferds, San Jose.
F. Ceschi, Corralitos.
Cyrus Jones, San Jose.
H R. Hines, San Jose.
J. R. Latta, San Jose.
J W. Badger, San Jose.
W. Windsor, Los Gatos.
Mrs. Mary E. Holium, San Jose.
R. Besant, San Jose.
John C. Duff, Napa.
H. Spencer Black, San Jose.
L. Lee, San Jose.
Chas. L Mann, San Francisco.
Mrs L. J. Watkins, San Jose.
Mrs E F Adams, Wright.
Emer C. Zane, Yolo.
J A. Harrington, Agnews.
A. C. Butcher, Lawrence.
J. J Crathers, San Jose.
Wm. B. Gester, Newcastle.
Geo. H. Holt, El Cajon.
G. A. Penniman, San Jose.
E M. Shearer, San Jose.
C. M. Weiss, Los Angeles.
Frank S. Chapin, Tulare.

HORTICULTURE.

Opening Addresses at the San Jose Convention.

Words of Welcome by S. F. Lieb.

Mr. President, ladies and gentlemen: I feel myself inadequate to give you a description of this valley. Originally it was a sea—this was before there was a Golden Gate. The geologist tells us that in those times this inland sea covered not only this valley, but what is now the great valleys of Sacramento and San Joaquin. Into it flowed the waters of the Sacramento, San Joaquin and other rivers, and it found its outlet through the southern end of this valley and thence on through the Pajaro valley to the ocean. Just how near the water stood to the top of the lowest gap of the coast range opposite the present bay of San Francisco we cannot even surmise, but eventually it became high enough to pour through this gap and Golden Gate was probably then soon made. Large tracts of land were thereby drained and made dry. The rich soil of our surrounding mountains was washed into the basin where the water had been and made this valley what it is. This is proven by the further fact that in boring our artesian wells we frequently find redwood trees hundreds of feet below the surface. When I came here nearly a quarter of a century ago, Santa Clara valley was one vast grain field. I cannot recollect of then seeing an orchard having in its limits as much as ten acres. Now behold the change. Where are those vast grain fields? Even you who were in attendance at the convention of this society held here some eight or ten years ago will be astonished at the changes since even then. As an illustration of this I may state that I had just planted an orchard in the western edge of this valley on what is known as the Stevens' creek road. That road is eight miles long and as straight as an arrow. Not a single orchard then fronted on this road but my own. Now, there is not one-quarter of a mile of it all told that has not an orchard or vineyard fronting on one or the other side of it and generally on both sides. I had occasion last spring to drive an Eastern friend around a portion of this valley, and we agreed before starting to keep account of all portions of the road that had no orchard or vineyard fronting on one or both of its sides. That drive extended between 25 and 30 miles, and at its close we found that there was much less than one mile in all not fringed by orchards or vineyards. Last year we shipped over 1000 carloads, counting ten acres to a carload, of dried prunes alone, from the San Jose depot. Should we have a full crop next year, we will ship 2500 such carloads of that fruit from that depot. Colonel Hersey, a very intelligent fruitgrower, makes a conservative estimate that from the trees now planted in this county we will produce annually over 200,000,000 pounds of dried prunes. Some idea of the enormous extent of that particular industry in this valley may be obtained when we remember that the annual consumption of prunes by the United States is only from 50,000,000 to 60,000,000 pounds and has never yet reached 100,000,000 pounds, even the years when they were very cheap. And yet, second only to our prune industry, is that of our apricots, our peaches, our pears, our cherries, and various other fruits. I have said this much of our valley, not in vaunting praise, but that you may see that we are a community of fruitgrowers, and hence that you have come to a community of friends. In such a community it goes without saying that you are more than welcome. We welcome you most heartily and unreservedly, and we mean every word of it. We go beyond that, and extend to you our most heartfelt gratitude for holding your convention here where so many of us can profit by your wise deliberations. In conclusion, we assure you that nothing will give us more pleasure than to feel that you have enjoyed your stay while sojourning with us.

Address by President Ellwood Cooper.

This will be the sixteenth State Fruitgrowers' Convention, and the twelfth held under the auspices of the State Board of Horticulture. These meetings form an important part of my life, and I must express to you my gratitude for the privilege of meeting you and feeling that we are friends united in our efforts to promote the best interests of horticulture. While our special purpose is to interchange ideas and discuss the fruit problem, we are developing other interests and effecting more important results even than the successful culture of fruits. The harmony and unity of feeling and purpose, always present, has governed our deliberations, is creating a public sentiment, and on our maintaining the same unselfish interest in the general welfare will eventually become a controlling interest in State affairs.

In reviewing the proceedings of the last convention, we find an increasing and deeper interest manifested. It will be appropriate in this place to mention that we had hoped to have our report for 1892 ready for distribution at this convention. We have succeeded in getting only a few partial copies, which are present, merely to show the character of the work.

At this meeting I will briefly mention some of the subjects for discussion presented in the program, and refer you more particularly to the address of our vice-president at the opening of our last convention held one year ago. The subject of canned fruits, false labels on worthless fruits and a system of inspection, besides other important questions, were brought to the notice of the convention, all of which still concern our success.

Regarding the appropriation of $5000 for the purpose of searching out predaceous insects to destroy insect pests, I should like to say here that Albert Koebele has to the best of his ability performed this service, and with very encouraging results. His report will be presented to the convention. It is my opinion that the beginning of the end has dawned and that devastation by insects will soon be a thing of the past, as far as those insects are concerned that are now here and troubling us. If we are cautious and determined in not letting any new insects establish themselves, we would be saved from further spraying and expensive remedies. This method of counteracting the depredations of insect pests is new. It has not been practiced at any period in the world's history, and if we carry out the project to its full completion, the fruitgrowers of California will be credited with one of the wisest measures ever encouraged or instituted. Its importance will be lasting through all future civilization. No measure so strongly recommends itself to the intelligent legislator as this, and it is to be hoped that at the coming session such aid will be granted as will permit the State Board to carry out the plans they have projected, so that the final solution may be reached.

Five thousand dollars a year for the next four years would be a sufficient sum to keep Mr. Albert Koebele constantly at work. I am confident that a parasite for every noxious insect will yet be found and colonized in California. I recommend that a committee be appointed to urge this matter in the coming Legislature. In Lee's report of 1890, there does not appear to be any doubt but that the insect, *Bracon Capitata*, would prove an effectual remedy to the devastation caused by the raids of grasshoppers. It is our duty to search for and introduce this parasite. It has also been stated by Charles Nanchin that the Pigmy owl of France is an effectual enemy to the excessive multiplication of the European sparrow; also that the great owl, *stryx bubo*, is the special enemy of rabbits. I would suggest that these birds be procured, and also the wildcat, as an enemy to the rabbit.

The present methods of disposing of fruits are very imperfect, resulting unsatisfactorily to the producers as well as to the consumers. They have not improved as was anticipated.

On previous occasions I have called attention to the forest culture. The regions of the mighty rivers, the Don, the Volga and Dneiper, were formerly fringed with widespreading forests along their whole upper and middle courses, which sheltered their sources and tributaries from evaporation throughout the year. These forests have now for the most part disappeared. Mile after mile the traveler sees nothing but low shrubs and melancholy stumps in unbroken succession. The Government of Russia had been warned 42 years ago and commanded to protect the forest, and unless these forests are protected the Don and Volga will disappear. More fatal even than the closing up of the streams is the cessation of the spring and summer rains. Now, my fellow citizens, will we permit this devastation to go on in our own country, which brings with it like devastation? I recommend the passage of resolutions urging the United States Congress to pass Senator Paddock's bill, "to provide for the establishment, protection and administration of public forest reservations and for other purposes."

At a convention held in San Francisco July 21st a committee was appointed on legislation, to obtain, if possible, such amendments to the Pharmacy Act and the Olive Oil Act as would secure the enforcement of these laws. I recommend that the convention ratify the appointment of this committee, or appoint a separate committee to act jointly with them.

Again, our vagrant law has not been effective. It could not be expected that a farmer or fruitgrower would follow a vagrant 10, 15 or 20 miles to a Police Court to identify him and have him punished, nor that each farm should have a deputized officer clothed with the power to make arrests. The law should be so amended that the local officers in every district could be empowered and compelled to arrest every wanderer who had no visible means of support.

At the Marysville convention a committee was appointed with power to act as an advisory committee to the World's Fair State Commission. In regard to this, I feel that we should take some action at this convention to impress upon the fruitgrowers the importance of making our greatest efforts on this occasion. The reissue of the State Board's reports is desirable for several reasons. A number are wanted for reference in the schools; the increased number of fruitgrowers desire the information contained in them, and a number should be on hand for distribution at the Columbian Exposition. It is as important as literature on any other subject, for it represents our intelligence in horticultural work. I recommend that a committee be appointed to bring the matter of publishing these documents before the Legislature.

THE TRANSPORTATION PROBLEM.

Simon Sterne, one of the best writers on railway service said: "Of all the factors that have contributed during this century to the growth of wealth, to the increase of material comfort, and to the diffusion of information and knowledge, the railway plays the most prominent part. * * * It is not, however, an unmixed good. It causes cities to become overcrowded; it takes away the independence of the individual workman; it makes the handicraftsman part of a huge machine, and compels the workman to give his time more and more to smaller and smaller parts of the whole operation necessary to produce a given result."

Every country which has allowed the railway to be built by private enterprise has fostered a class of unscrupulous operators, furnishing them the means of achieving great fortunes. Absence of governmental supervision in the stock capital of railways has caused the placing on the money markets of the world of a vast quantity of fictitious values not representing actual construction in money value. At the very outset of railway development, Stephenson, who was as wise a statesman as he was an engineer, insisted that railways should be taken in hand and operated by the Government, claiming that, from its nature and character, it was a highway which would in time become more important than the ordinary road. In terse language, he expressed before a committee of Parliament his opinion that competition would not be the means of producing in this case, as it does in others, the cheapest and best results for the community, because, said he, where combination is possible, competition is excluded.

James Morrison, in a speech delivered before the British Parliament, said, regarding the rates of toll, that he would determine the rate in every case by the sum at which the particular line of railway could now be constructed. The public are not bound to inquire what the line has really cost, but merely to ascertain the sum for which it could at the present time be constructed, and the railway proprietors ought to be compelled to carry the public and their goods for such fare as would yield a fair profit upon such outlay.

THE SYSTEM IN EUROPE.

In Belgium all concessions for constructing railways are granted by the Minister of the Interior, subject to the ratification of the Chamber of Deputies and of the King. The expected corporators offer a plan, giving the line of the route, estimates of its revenue, and the probable expense of the undertaking, together with a tariff of tolls for passengers and freight traffic. This is submitted to competent engineers and all verifications of the calculated costs of the projectors are made at the expense of the latter. Then for a period varying from one to three months, the whole plan is advertised. After these reports a hearing is had, at which the engineering work, the guarantees for its execution, the rate of charges by the company, the time for which they may be demanded, and the time within which the work is to be commenced and finished, are specified. After all these questions have been settled, the whole matter is then submitted to the Chamber and Senate and the King, any one of whom can alter it before it becomes a law. All the main lines are owned and operated by the Government. In 1850 the Government owned 64 per cent and private individuals only 36 per cent of the roads. The Government may at any time, if a line becomes profitable, buy it up, as under the terms of every concession, the road is subject to purchase by the State for the benefit of the commonwealth. The purchase-price is the net receipts for the last seven years of the company's working, from which the receipts of two most profitable years are deducted. It is needless to state that this system resulted in giving to Belgium the best and in every way the most efficient network of railway service on the face of the globe.

In France the Government advanced large sums of money to the railways upon the condition that at the end of 90 years all the lines should become State property, the State to take the rolling stock at a low valuation. All the rates of charges for both passengers and freight are regulated with the utmost minuteness. At any time before the 90 years expire, the Government can purchase the whole at a capitalization of an average of 15 years' income, after disregarding the two worst years, and taking as the minimum figure of the capitalization the lowest year immediately preceding the purchase. Every tariff of charges must be submitted to the Government for the purpose of receiving its sanction, and a month's notice must be given of any proposed change. Every passenger time-table is submitted to the Government for approval. No one interested in the stock of the railway, or in its direction, is permitted to make any contracts with the railway for supplies.

In North Germany all concessions are made by the Minister of Commerce. Since the formation of the German Empire, the separate States have agreed to concede to the Empire the power of expropriation, and the new lines are to be constructed under the Empire.

In Prussia all tariffs both for freight and passenger traffic must be submitted to the Government and receive its assent. At the close of the war with France, the Iron-Chancellor, Bismarck, had determined that the railways should become the property of the State, so that in 1882, 9500 miles belonged to the State, 1320 miles private lines under State management, and 2400 miles under private management.

Austria followed the course of France by making concessions for a period of 90 years to the railways. Its system of supervision as to the tariff of both passenger and freight traffic is complete.

Italy possesses a large majority of the mileage of rail within its territory. Switzerland has an extremely effectual system of supervising the tariff of charges, which must exist on all her roads.

In all these countries, therefore, the railway has never been regarded wholly as a matter of private enterprise.

An investigating committee appointed in New York State in 1879 made an exhaustive report. On alluding to watered stock, they referred to the fact that it was proved before them that $40,000,000 was probably the whole value of the property and equipment of the Erie Railway Company, and that $25 000,000 more would cover the additional value of the road as represented by stock and bonds and interests in other corporations, while it was capitalized at about $155,000 000. The construction account covered in 1873 an item of "legal expenses" of $891,000. The watering of the stock was estimated by the committee to be not less than $70,000,000. From 1868 to 1870, by the consolidation of the New York Central and Hudson River Railroads $44,000,000 were added to the combined capital of both. The fictitious capitalization of the railroads in the United States is a very difficult problem to deal with. There is no question but that the system is entirely vicious and caused by the public treating them as private enterprises, instead of public ones.

The aggregate capital of all the railways reaches something like $8,000,000,000, or eight times the public debt. A considerable portion is in the hands, or largely under the control of, less than 100 men. In any contest, therefore, between the Government and the railways, it is clear that so far as mere pecuniary interests are concerned, the railway enterprises largely preponderate. On account of the concentration of the railway power in comparatively few hands, the extent to which they can corrupt the commonwealth is practically limited only by their will.

We have heard, also, considerable discussion about the burden of taxation in the last political contest. The greater portion of the time of two Congressional sessions was taken up in discussing this subject: one with the Mills Tariff bill; the other, with the McKinley Tariff bill; yet the whole amount of revenue resulting from the present tariff is not more than one-half the tax levied on railroad

transportation, and, while the people throughout the country are conversant with all the arguments in support of one or the other methods, and have a voice in determining the adoption of the one or the other, they have no knowledge nor voice in the greater and more burdensome railroad taxation. There has been in New York city a small number of men, any one of whom could invite the others privately to his house, where by common agreement they would secretly raise the railroad tax 10 per cent, secretly telegraph it throughout the country without the knowledge of any one excepting the various railroad companies, have it enforced and levied upon the industries of the country. There is no government, either republican or autocratic, on the face of the globe that could accept this evil in times of peace without bringing on a revolution. No community can safely pursue its course of happiness and well-being before such an insidious power. The citizens of the United States are, therefore, called upon to meet this question. There are two ways, one by civil law, the other by revolution.

As to the laws governing a common carrier, a franchise to a common carrier, is not a local or a Sate question. It should be limited entirely to the Government of the whole people. Every citizen in the country who uses a common carrier, and all do, should have a voice in its creation and in its management. A citizen residing in Maine or Minnesota may use the California railroads to a greater extent than even Californians. It is a question belonging to the Government, just as much as the national defense or the postoffice. Therefore no franchise to a common carrier, at least to a main line of travel, should be granted except by the Government, and it should be guarded by such conditions that would protect the rights of every citizen, be for the public good, and be controlled by the whole people.

Monopoly breeds monopoly, hence the formation of trusts and syndicates, and, like their parent model, they have their foundation in fraud, by fictitious capitalization, taxing the public to reap a reasonable interest on fictitious values, furthermore acquiring power to govern prices, causing lower prices to the producers of the raw material, higher prices to the consumers for the manufactured goods and larger profits and accumulations to themselves. The machinery of the State governments is amply sufficient for dealing with this evil. By amending our corporate laws no incorporation should be granted unless restricted to the extent that it could not transact on a fictitious valuation. The purposes of the projects should be set out in their petition of application as to the extent of their business with a limit to the profits to be derived therefrom, and unless it could be shown that by such unity of operators economy would accrue to the general public, the petition should not be granted. The books of the corporation and the business management should be open to the inspection of legalized State authority.

It will not be many years before our fruit shipments will be ten times as great as at present. The two questions of all-absorbing interest, therefore, are first, how to dispose of the fruit, and second, the rates of transportation. The present methods of disposing of the fruits will not answer, because the commission merchants in the various localities have no direct interest in the property of the fruitgrowers. Their interest is a selfish one, based upon the probable commissions they will receive for the time being, and not upon the ultimate result which must effect every possible consumer seeking markets everywhere, that there may be no oversupplies or waste. An employed interest directed by the fruitgrowers can alone secure this. We must sell our own fruits, otherwise serious losses can arise at any time from improper distribution. Rates of transportation must be fixed upon the basis as indicated in what I have outlined, that is on the actual cost of transportation, with a reasonable interest on the capital invested, that is, on the actual cost of a system, adequate to the demands, capable of transporting the fruits without delays, and not upon the fictitious valuations of the various superfluous systems.

FRUIT MARKETING.

Cooperative Marketing Discussed at the San Jose Convention.

After the opening addresses at the San Jose convention, which are published in other columns, the first paper was presented by A. L. Bancroft, of San Francisco, on a plan for establishing a Fruit Exchange in San Francisco. Mr. Bancroft said:

The basis of this paper is the plan for a State Dried Fruit Exchange which has already been presented to the fruitgrowers of the State. Study has been put upon the subject and a few modifications have been made.

We hope at this time to advance further toward obtaining the desired results of effecting an organization than we have as yet done, and to leave matters in such a shape that work will proceed without interruption until either the organization is consummated, or it is clearly demonstrated that it cannot be accomplished.

No plan has been presented as an improvement upon the one herein outlined, or as a substitute for it. If nothing is ready now to be offered, is it not in order to consider whether or not this one has sufficient merit to justify an earnest effort to establish it?

A California Dried Fruit Exchange; an organization in the interest of the producer. The object is to furnish a medium through which to market California's product of dried fruit, figs, raisins, almonds, nuts, etc.

To limit the market places and concentrate the marketing at San Francisco in the place of having it sold at different places within the State and consigned for sale to places outside of the State.

To do away with the competition of one county or section of the State with those of another, and also with the competition between individuals of the same locality.

To assist members in buying supplies of all kinds, such as lye, sulphur, trays, ladders, implements, etc.

To establish the best methods of packing, shipping, etc., and perhaps grades and brands.

To gather and disseminate valuable information among the fruitgrowers.

Board of Directors.—To have a board of seven directors which shall be selected, as far as practicable, so as to have each prominent fruit-producing section of the State represented.

Compensation to each member of the board, a fee of $20 for each regular meeting attended, provided he is strictly on time and attends to the duties assigned him; also milage of 5 cents a mile each way from the country and return for each regular and special meeting attended, if strictly on time. No additional fee for attendance at special meetings. Their compensation to be paid only out of the net earnings or surplus of the Exchange.

To have the management and control of the affairs of the Exchange; to fix salaries of all except themselves; to employ all of the assistants required and to discharge them at their pleasure.

To establish uniform grades of dried fruit, etc.

To serve seven years, and to go out of office one at a time. The length of the first term to be decided by lot. Vacancies in the board to be filled, until the first election, by the board itself.

Regular Monthly Meetings.—Special meetings on call of president or manager.

The board of directors should be elected by ballot by the selling members, each $100 of sales made during the preceding season to be entitled to one vote. The election should be held April 1st of each year.

The first board should be elected by those who pledge themselves to sell their product through the Exchange the following season or year of 1893, each producer to have one vote.

The board of directors should elect the officers: President, vice-president, executive committee, manager and assistants. The management of the Exchange should fall upon the executive committee, it being all the time subordinate to the board of directors.

Executive Committee—To have an executive committee of three, to be elected by the board of directors from among its members. Weekly meetings from June 15th for six months, and biweekly meetings for the remaining six months, or say 40 meetings in the course of the year. Compensation, $20 to each member for each meeting attended, and mileage, if strictly on time and if he attend to his duties. A record to be kept of their transactions by the secretary. Where the members are not unanimous upon any point, it may be dropped or referred to the board of directors for action.

A manager, to devote his entire business time to the interests of the Exchange; to be secretary and ex-officio member of both board of directors and executive committee, but to have no vote in either body; compensation, $200 per month, to be paid out of the net surplus or earnings; two assistants, one at $50 per month and one at $25. The members of the Exchange to be of two classes, selling members and buying members; the selling members to pay a fee for the season of $5, the buying members to pay a fee for the season of $10; the Exchange to locate in rooms as near to the State Board of Horticulture as practicable; rent probably about $75 per month.

The Exchange to receive samples of dried fruits, etc., grade them, and to sell by sample, charging to the seller and buyer each a commission of 1½ per cent, making 3 per cent in all to the Exchange. The commissions, or part of them, to perhaps be deposited with the Exchange in advance, or the seller to be responsible for all, he to collect from the buyer at the time of sale. The Exchange to effect sales by correspondence as well as in their rooms, charging the same commissions; the seller to furnish samples and the purchaser to pay transportation on them. No sample to be accepted by the Exchange except from parties who contract to sell their entire product for the entire season through the Exchange. No one to be admitted as a seller for any season if he shall have made any sales previous to applying for membership. No dealer in dried fruits to be admitted as a selling member. The Exchange to assume no responsibility as to goods agreeing with samples; that must be arranged for between buyer and seller. No goods to be consigned by the Exchange. The selling prices to be determined from time to time by the executive committee. The "lots" of samples to be numbered; the buyer to pay his 1½ per cent commission before receiving a card or certificate of the Exchange, showing that he has bought the "lot" and is given the name and address of the seller.

Should the goods not agree with the sample, or the buyer be not satisfied with them and not take them, the Exchange to refund the commission paid; the seller to pay to the Exchange this 1½ per cent as soon as the sale is consummated. The Exchange to issue bulletins to the seller weekly from July 1st to January 1st, and biweekly from January 1st to July 1st, giving statistics of sales made, goods unsold and market rates of dried fruits, etc., all over the world; the bulletins to be mailed in sealed envelopes. Accompanying the bulletins once a month shall be a blank form of report and ballot—on a postal card—perhaps to be numbered for the seller to fill out, showing the quantity of dried fruit he may have on hand and the prices at which he is in favor of offering it, but the prices at which it is to be held are to be finally determined by the executive committee. Lots of goods offered shall be listed at the Exchange in the order accepted, and shall be offered to the buying members in the same order; perhaps make a separate list for each variety of fruit. If goods remain with the Exchange for a period of six months unsold, the selling member is to be allowed to apply for and receive permission to offer them at private sale at any price he may desire, and, if so sold, the Exchange shall be notified, but the Exchange shall not be entitled to any commission upon them. The Exchange to make the most favorable arrangements possible for the storage of goods while awaiting a purchaser, and also for the obtaining of loans upon them.

At the members' meetings, only selling members shall be present or be represented by proxy. Buying members shall have no part in the management of affairs of the Exchange. Buying members shall not hold proxies of selling members. Proxies may be voted at members' meetings, but no person shall hold or vote at one time more proxies than those of one member. The Exchange should organize at once and commence preparations. Applications for selling memberships to be solicited at once, conditioned upon business amounting to an estimated amount of not less than $250,000 for the season, to be obtained before they shall be considered binding. Requests should be made in each notice published that producers send their names and addresses to the Exchange in order that circular matter may be sent to them. Advertisements to the same end should be inserted in the trade papers.

ESTIMATES OF RECEIPTS AND EXPENDITURES.

RECEIPTS.

Commission on $250,000 sales at 3 per cent	$ 7,500
Fees from 500 selling members at $5	2,500
Fees from 25 buying members at $10	250
Total	$10,250

EXPENDITURES.

Board of Directors—12 meetings at $100	$ 1,200
Executive Committee—40 meetings at $60	2,400
Manager and secretary	2,400
Assistants	900
Rent	900
Stationery, printing, postage, fuel, lights, etc.	2,000
Sundries, extras or surplus	450
Total	$10,250

The $250,000 worth of goods to be sold by the Exchange would be about one-eighth or one-tenth of the apricots, peaches and prunes alone, to say nothing whatever of figs, raisins, grapes, almonds, nuts, etc. How much business it would be reasonable to expect might be done by the Exchange the first year, it would be difficult to say. If the sales were materially in excess of the amount named, the commission to the selling members should be reduced or be cut off entirely, or they should have a drawback at the end of the year which would materially reduce or wipe them out. The commission to the buying members should not be reduced.

Upon the basis of five directors, the estimated expenses were $10,250, as above.

With seven directors and a more pushing policy, say that the expenses should reach $15,000, $18,000 or even $20,000 a year. The 1½ per cent of the buying members alone on a business of $1,500,000 would more than cover it all.

Subscriptions should be started at once to a fund to guarantee the expenses of attempting an organization. If the attempt is successful, the expenses would be met in the ordinary way; if not successful, they would be divided pro rata among the subscribers.

If an enterprise of this kind bids fair to succeed, there will be danger that the middlemen will try to find some way to strangle it in order to protect their own interests. The possibilities of such an attempt resulting successfully should be very carefully guarded.

A COMMITTEE REPORTS A DIFFERENT PLAN.

Mr. President and Gentlemen of the Convention: Your committee to whom was referred the paper of A. L. Bancroft relating to the formation of a State Dried Fruit Exchange, have had the same under consideration and beg leave to report as follows: The thanks of the convention are due to Mr. Bancroft for the thought and labor which have resulted in the carefully detailed outline of the plan submitted, and while we find ourselves unable to entirely agree with him as to the method to be pursued, we do most cordially unite with him in saying that a State organization of the dried-fruit interest should be formed, conducted by competent men, paid to attend to their duties.

The points upon which your committee are unable to agree with Mr. Bancroft are as follows:

First—The plan of Mr. Bancroft contemplates that each grower shall contract to place his entire product for the season at the disposal of the Exchange, to be sold when and at such prices as the Exchange may determine or find feasible. Your committee do not believe that any considerable number of growers can be found who will make such engagement; we know that large numbers are compelled to realize on their output very promptly, and would not be able to make such contract; the Exchange does not propose any definite plan for assisting such growers by advances, nor would any such action be possible while the growers retained control of their fruit; this the plan proposes that they should do, and, in fact, they would have to retain control of it, unless the Exchange should provide warehouses, for which there is to be no money. It might be best that growers should put the control of their product into the hands of the ablest and wisest among them, but we are sure they will not do it, and we cannot recommend effort to attain the impossible.

Second—Mr. Bancroft's plan contemplates the shifting of the market places from the vicinity of the various terminal railroad points, where the products now change hands, and concentrating all transactions in San Francisco. Your committee believes that this would immediately cause powerful and bitter antagonism in every locality now enjoying this trade, in the face of which the Exchange would be entirelely helpless. No locality will surrender any portion of its business without a fight. It is not proposed to remove the fruit itself to San Francisco, which, of course, would be foolish as involving useless local freight and more expensive storage, and we believe that no power on earth can prevent the bulk of the transactions from taking place where the bulk of the fruit is; buyers will not buy by sample when they can see the fruit in bulk. If the concentration of this business at San Francisco had been commercially economical, it would have long since been established there. We shall have enough to do in securing the re-

forms which we desire without attempting to make unnecessary changes in the natural channels of trade.

In view of these conclusions which we have reached, and after further consideration which we have given the subject, your committee report that in their opinion the end sought by Mr. Bancroft can be much more certainly reached by local associations at the important shipping centers, co-operating through a central Exchange, with such powers and duties as the local Exchange, when organized, shall find it possible and expedient to commit to it.

In seeking to outline some definite plan for such associations to report for the consideration of the convention, the attention of your committee has been called to the work of the Santa Clara County Fruit Exchange which was incorporated last June and is now actively engaged in preparing for the business of 1893.

The history of this organization is properly this: Some time in April or May of this year, some 20 or 30 representative men of this county united in a call for a convention of all interested in the fruit industry, to be held in this hall to consider how far they could cooperate in marketing fruit. The resulting meeting was large and enthusiastic and was followed by others, the outcome of which was the organization and incorporation of the Santa Clara County Fruit Exchange, with Colonel Philo Hersey as president; Edward F. Adams, vice-president and manager; W. H. Wright, secretary; with a board of nine directors, a majority of whom, by the by-laws, must have larger interests as growers, than as driers or canners. Growers, driers and canners alone are eligible as stockholders, and no one can own stock in excess of $1000.

This corporation is empowered, under its articles, to take the green fruit as it comes from the tree and do everything needful to be done for it, until it reaches the consumer. The original expectation was that it should take the fruit green, when desired, dry, pack and sell it in carload lots to any purchasers who appeared, charging for such services the actual expense thereof, and interest on the necessary capital. The idea of drying, however, was soon abandoned, or at least postponed, as it was believed that this work could be more economically done by the cooperation of small growers securing drying grounds and plant in the midst of their orchards, leaving to the Exchange only the duty of marketing and of grading and otherwise preparing for market the dried product of those who desired it.

The capital required is the sum necessary to buy a lot, build and equip a warehouse, and a small working capital besides. For advances on fruit, which will be made if desired, it is deemed best to borrow as required, as it is not economical to raise capital to be idle eight months for the sake of using it four months.

The plan of operation, as it now exists in the minds of the directors, consists of two entirely separate and distinct functions:

1. A salesroom in the business center, rented for the season, in charge of a paid employe, open to buyers and sellers, whether stockholders or not, upon season tickets sold at a rate to cover expenses. In this room the Exchange will offer what fruit it has to sell, and all others being ticket-holders can meet there, buying from the Exchange or each other in the manner common in other produce exchanges.

2. A warehouse, with grading and boxing machinery, to prepare the fruit of small growers for the market. The business of the warehouse will be conducted on the plan of doing for each stockholder whatever he may deem profitable to have done by the Exchange and nothing more, the directors believing that if they do the business wisely and profitably all will desire to share their advantages, while if they cannot so transact the business it is better they should not be entrusted with it. They wish for no waste of material owned or the markets established by any of the stockholders, but rather to maintain all that has been thus gained and supply the same or better advantages to the smaller grower.

The following have been suggested as the principal rules which will govern the business, and most of them are involved in resolutions passed at various times by the directors, but they have never been actually adopted in due form, and on one or two points they touch matters not yet considered by the directors, but they indicate quite closely the present opinion among them:

1. Separate charges shall be made for each class of service, to cover the possible cost thereof, including interest on paid-up capital and insurance, and any excess shall be returned to the proper person when the actual average cost shall be ascertained at the close of the season. All fruit received shall be charged with insurance.

2. In addition to insurance the following are the services which the Exchange shall perform and for which separate charges shall be made: Storing, grading, inspecting, dipping, boxing, selling.

3. Any stockholder may have any fruit inspected, with or without any one or more of the above services, as he may order. No service shall be given except upon the written order of the owner, and no service shall be charged when actually ordered and rendered. No fruit shall be handled by the Exchange or sold under its brand unless inspected.

4. All prunes received, when graded, shall be binned together and transferable warehouse receipts given therefor, less — per cent to cover shrinkage. When all receipts shall have been honored any excess shall be sold for account of the Exchange and the proceeds divided, pro rata, among the consignors. All other fruits, so far as possible, shall be treated in the same manner. Fruit insufficiently dried shall not be receipted for until in proper condition. Inferior fruit, at the option of the Exchange, shall be kept in original sacks and sold only by sample. Any fruit, at the owner's option, may be handled in the same manner, subject to charge for any additional expense.

5. Advances, when desired, shall be made by the Exchange on all fruit subject to its control, at current rates of interest, up to the limit of sound banking, and fruit so pledged may continue subject to sale by the Exchange, the owner or any agent, at the owner's option.

6. The Exchange shall guarantee sellers under its inspection against all claims for rebate.

7. All sales by the Exchange shall be for spot cash F. O. B., San Jose. In case of complaint by non-resident buyers in regard to weight and quality the same shall be promptly arbitrated, and if sustained the rebate adjudged shall be promptly paid by the Exchange.

The above, as before stated, indicates about what is proposed. The plan of inspection and guaranty against rebate would require an inspector's fee to be sufficiently above the actual cost of inspection to cover insurance against occasional inevitable errors of inspector. It should be added that the plan of inspection has not yet been worked out, but it must be based on exact definitions of what the Exchange means by "Standard," "Extra" and other brands of the different fruits. The Directors have gone far enough with it to convince them that such definitions are possible.

It will be noted that the Exchange requires its brand to be placed on all packages. It is intended that the inspector's label shall be so attached to the package as to be destroyed in opening. The Exchange brand is not be the exclusion of private brands which it is desired to have also appear on each package.

The expectation of success is based on the belief that wise and prudent management will secure it, and upon the plan of uniting growers, buyers and driers in an effort to secure the utmost economy in all movements and manipulations of the fruit for the purpose of reducing cost. The Exchange expects to save some commissions, but not all.

The relation of such an Exchange to a State Exchange might be indicated by the following resolution adopted by the Santa Clara Exchange, and which expresses the opinion of that body:

Resolved. That it be announced as the policy of the Exchange to induce the formation of Exchanges similar to our own in all prominent fruit districts of the State; and that when such Exchanges shall be formed, we will favor the formation of a State Association of Exchanges, the Directors of which shall be selected from the local directories, and whose functions shall be the gathering and distribution of information, the opening of new markets, the care of our exhibits at important industrial expositions, the detection and exposure of fraudulent practices calulated to injure honorable growers of and dealers in California fruits, and mutual conference in regard to prices.

This report is already too long to permit us to indicate what modifications of detail might be required to adopt the Santa Clara plan to other localities, where the leading products are different from those of the Santa Clara valley. The plan as worked out is the result of the careful study of nine competent men, five of whom are growers and four driers or canners for the past six months. It seems to us the most promising attempt yet made in this direction, and as such we commend it to the consideration of this convention. Respectfully submitted.

N. W. MOTHERAL,
G. M. GRAY,
ALEX. GORDON,
EDWARD F. ADAMS.

After discussion, the report of the committe was unanimously adopted.

THE DAIRY.

The London Dairy Show.

Written for the RURAL PRESS.

This show was held in the month of October, 1892, when 33 cows of different breeds came forward for the milking trial and testing of the milk.

A short time ago we gave the scale of points on which premiums are awarded at this show, but it will not be out of place if given again in connection with the results obtained in the milking trials of this year.

The milk of two days, or four milkings, is first weighed and analyzed, and from these data the points are calculated. "One point is given for every ten days since calving, deducting the first 20, and making 18 the maximum; one point for each pound of milk yielded per day; 20 points for each pound of fat; four points for each pound of solids other than fat in the milk; with ten points deducted in cases where the butter-fat amounts to less than three per cent."

The following table, from the *Agricultural Gazette*, shows at a glance the comparative merits of the prizewinners in the different breeds.

	Points.
SHORTHORNS.	
1 and Thorley's, Mr. Errington's Lily	132.3
2, Mr. Hornby's Pride of Finchley	129.8
r and Errington's, Messrs. Rumball & Son's Lily	120.0
JERSEYS.	
1, Mr. Baxendale's Chestnut 2d	93.3
2 and Thorley's, Mr. Bratton's Fairy Elf	89.0
r, Miss Standish's Beauty	83.1
GUERNSEYS.	
1, Mr. Christie-Miller's Mountain Maid 2d	125.8
r, Express Dairy Company's Ladybird 2d	75.2
AYRSHIRES.	
1, Mr. Holm's Snowdrop	99.8
r, Mr. Holm's Rosie	78.9
KERRIES.	
1, Express Dairy Company's Killarney	88.2
2, Lord Ashburton's Mavourneen	82.5
r, Mr. Roumieu's Topsy	50.1
MIXED CLASS.	
1 and Thorley's, Mr. Spencer's Aberdeen-Angus, Black Bess	140.8
2, Mr. Spencer's Dorothy	131.3
r, Mr. Spencer's Modesty 2d	122.8

The letter *r* means reserve number, which entitles an animal to the second premium in case the one to which it has been awarded, or its owner, does not fulfill all the conditions of entry, etc., required by the society. "Thorley's" is an extra prize given to cattle fed in part on Thorley's cattle-food.

It will be noticed that the cow with the greatest number of points to her credit is a polled Aberdeen-Angus, but whether pure-bred or not is not stated. The breed is not, and never has been, noted for its dairy or milk-giving qualities; consequently, the fact that the highest merit should have been won by a cow of this breed is a surprise to most people.

The morning's milk of this cow, taking the average of two days' milk, was 32 pounds, with 4.32 per cent fat and 8.80 other solids; evening's milk, 28 3 pounds, with 5.66 per cent fat and 8.70 per cent other solids; the total butter-fat for one day being 2.98 pounds, equal to more than three pounds of butter.

The next best cow is a Shorthorn, that gave 30.4 pounds of milk in the morning, with 4.45 per cent fat and 9.25 per cent solids other than fat; evening's milk, 29.1 pounds; fat, 4.16 per cent; and other solids, 8.96 per cent; the total butter fat given by this cow being equal to 2.56 pounds in the 24 hours, say 2¾ pounds of butter a day; while the second best Shorthorn cow gave 2.3 pounds butter-fat in same time, which is equal to about 2½ pounds of butter a day, from 60.6 pounds of milk.

The milk and butter produced by either of these two cows, so far as we are aware, is above that of any cow which has competed, in any State, for the premiums given by the American Shorthorn Breeders' Association; a cow with a record of 4.2 pounds of butter-fat for two days being the best, unless beat this year.

It now remains to be seen whether the very liberal additions to the World's Fair premiums made by that association will draw out a better array of milking Shorthorns than this country has yet seen brought before the public.

The best Guernsey cow, with 125.8 points, gave 51.6 pounds of milk in one day, which contained 2.59 pounds of butter-fat, being second in quantity of butter-fat to the Aberdeen-Angus cow.

The English Jersey Cattle Society's butter test is made at this show. They get at the results by the churn, on which the *Agricultural Gazette* remarks: "A gratifying feature of the trials this year is the fact that in the Jersey test—conducted by Mr. Ashcroft and Mr. Weetman—the result of the actual churning corresponded with the chemist's analysis in every case."

The first-prize Jersey cow, also first in the Dairy Show, had been in milk 120 days. At a previous show this year her milk in one day made 2 lbs. 14 ozs. of butter. She gave 29 lbs. 14½ ozs. of milk in one day, which made 2 lbs. 6½ ozs. of butter at the London Dairy Show, equal to 1 pound of butter from 12.42 pounds of milk, her milk having an average of 7.7 per cent butter-fat. The second-prize cow gave 31 lbs. 1½ ozs. milk and 1 lb. 11 ozs. butter, 121 days after calving, and the third-prize cow 28¾ lbs. of milk, which made 1 lb. 10¾ ozs. of butter, 55 days after calving.

The cow that takes second prize in the class for "other breeds and crosses," is entered as a Dutch cow. She has the third greatest number of points of any cow in the show, and gave 61.8 lbs. of milk, containing 2.36 lbs. of butter-fat in one day. The best Ayrshire cow gave 46.2 lbs. of milk, containing 1.87 lbs. of butter-fat, equal to about 2 lbs. of butter a day.

The above results show cows of five different breeds that made records of two to three pounds of butter a day. All these breeds, except one, the Aberdeen-Angus, are of recognized dairy breeds, among any or all of which a proportion of good cows may be found, according to the way in which they have been selected, bred and fed for the development of dairy qualities.

We would caution those who own Aberdeen-Angus cattle against warranting too high a dairy standard in the animals they sell, for fear their customers might meet with disappointment. One swallow does not make a summer, and however good the black polled cattle may be for beef, they cannot be depended on in the dairy business. Like a good many of the Shorthorns, they have not been bred that way.

That Extended Butter.

OAKLAND, Nov. 18, 1892.

TO THE EDITOR:—I am the owner of two fine cows from which I am making some 15 pounds of butter per week, which I have no trouble in selling at 40 cents per pound to my neighbors, who also take most of the butter-milk.

When I read in last week's RURAL that by adding one teaspoonful of "black pepsin" to the gallon of cream I could recover as *butter* some 37 per cent of the solids, I saw a small fortune before me. The more I thought about it, the more it impressed me as a "good thing." It excited me and I became extravagant. Colonel Sellers' eye-water scheme was nowhere. I could buy up all the cream in my county, convert it into butter and clear 100 per cent daily on the transaction. In two years I could start a bank and would name it the "Pepsin Bank of Oakland." People would wonder at the name and there would be a rush of deposits. I mentioned the matter to my wife and she became more excited than I had been, and more extravagant also.

I sent my boy into the drug-store with an order for one pound of "black pepsin." He came back and said: "Pop, there ain't no sich stuff ter be had." My dreams of wealth have vanished and I won't be extravagant again, pepsin or no pepsin. GRANGER.

[Our correspondent is right to abandon his high-flying anticipations of stretching his butter product beyond the limits set by old-fashioned notions of butter. To coagulate a part of the curd and work it into a mess with the butter-fat may be legitimate cookery, but it is not legitimate butter-making. So far as we can now learn, "black pepsin" is a term which some one has used to cover a preparation of which he hopes to maintain control. If we get fuller information we will give it later.—ED. PRESS.

The Home Circle.

Lost.

We are so courteous and kind, we two,
  There is not a thing in life
One would not do, as the other's due,
  In the crisis of the strife;
We would fight each other's battles still,
  We would stake our trust and truth
On what each averred, as when hearts were stirred,
  In the glory and glow of youth.
Yet I never forgot how you went away,
  Smiling and careless, that April day.

We keep the sweet old forms, we two;
  We treasure each dear old phrase
We made when the dream of love was new,
  In the golden summer days;
We would not let one trifle slip,
  Of the beautiful, fanciful thing,
Which hope and youth once set to truth
  For love's happy lips to sing;
Yet, smile and speak and act as we may,
I never forget that April day!

So we are drifting apart, we two,
  And you struck the link in twain;
I well believe that you never knew,
  Nor suffered the swift, strange pain;
Vaguely you think there is something gone
  From the old relationship;
Though the lovely ghost of the fair thing lost
  Still glances from eye and lip.
I knew the death pang that April day,
But I held my peace, and you went away.

—All the Year Round.

The Transitory Tramp.

Miss Eliza Brown was alone. She sat on her front porch, and now and again cooled her cheek by a nervous jerk of her palm-leaf fan. The rockers of her chair gave forth a dismal squeak, as her small but weighty person swayed forward and back. She was much discontented and very nervous—unstrung, she would have said—and her flushed face and aggrieved eye proved her no liar.

Miss Eliza's character included two very opposite qualities—a quick, high temper and great timidity. We see this combination in men very often, but in women it is rare, Miss Eliza had the arched nose and valiant coloring of England's Virgin Queen, contradicted by a mild eye, an insignificant mouth and a double chin. Her height was not much to speak of, and her figure was of the down-cushion order—soft and puffy.

Her thoughts just now were troublesome. They hovered persistently about a conversation she had listened to the night before, while taking tea with a neighbor. The subjects of this conversation, instead of remaining decently buried in oblivion, haunted her. They were rather a ghastly lot, taking them altogether. The first was set going by a girl who said that there had been more tramps hanging round this summer than ever before as far's she knew. Then followed stories of the bad behavior of these horny-footed and light-fingered gentlemen, tales of the evil deeds of gypsies, thieves and murderers, of the villany of Italians and the wily ways of the peddling Jew-man, till every one's flesh began to creep, and the younger girls giggled hysterically; till Miss Eliza's crimson cheeks faded to a faint heliotrope, and Miss Eliza's niece, who was present, trembled with delicious excitement. After it was over these two found their way home through the gathering gloom, the one with boldness of speech and an eye that shunned shadowy corners, the other thrilling at every rustling leaf and inwardly thirsting for adventure.

Now Miss Eliza was alone. "The girl," Miss Eliza's helpmeet, had gone to visit her mother, and Pauline, Miss Eliza's niece, was spending the afternoon with a friend about half a mile down the road. The house seemed very empty and isolated, just the place in which to enact a tragedy of the deepest dye. Miss Eliza reflected that in all tales told the night before, the bloodiest misfortunes ever befell the lone woman who lived a half-mile down the road, and could there be a fitter subject for such horrors than herself? She thought, too, that Pauline was not likely to return before sunset, for she had refused to let her take part in some amateur theatricals, and there was a coolness between them.

Miss Eliza rocked uneasily and scanned timorously the dusty road which ran past the garden gate. After a half-hour of this watching and fearing, she calmed a little and went into the house for her sewing. What was her dismay, when she stepped forth again upon the porch, to see a very ragged tramp come toward her up the gravel path and mount the steps. He stopped when he reached the step below her and smiled.

He was a young man, not over twenty-two or three, maybe younger, and rather handsome, but his black brows were very sharply marked, and there were deep shadows under his eyes, which gave him a deadly look, and the smile which now lifted the corners of his mouth brought to Miss Eliza only a more lively idea of how he would look as he gloated over her mangled remains. He stood, silent and smiling, and Miss Eliza felt she must say something. She gave a furtive glance down the road to see if any one were coming, then she raised herself on tiptoe, pointed a fat forefinger to the gate, and said:

"Go away."

She wished to trumpet this command in high, peremptory tones, but instead it came forth feebly and with a tremulous nasal twang.

The tramp shook a little, as though with suppressed laughter, then said in a deep and hollow voice:

"I'd rather stay here, ma'am, if it's all the same to you."

The voice suited his cadaverous eyes, but there was something incongruous and ghastly in the silent laughter that took hold of him and shook him at intervals.

Miss Eliza took a step backward. What do you want?" she demanded.

"If yer don't mind sittin' down and listenin' to me for a few minutes, I'll tell yer."

Miss Eliza, being scarcely able to stand, did as was suggested. The tramp also took a chair. He folded his legs and clasped his hands about his knee. His hands were small and well shaped, but very dirty; his feet were exceedingly large. Somehow the look of those smooth, soft fingers gave Miss Eliza a creepy feeling round the throat. The tramp began to speak in a rather affable manner, but with the same hollow voice.

"Yer ask me, ma'am, what do I want, and I'm a goin' to tell yer. First, I want the silver spoons and candlesticks and the teaset what's in the dinin'-room; then I want the stuffed hummin'-birds in the front parlor and the silver cake-basket what stands on the corner table. After that I want yer gold watch and chain and that hair-brooch yer a-wearin', and all the other trinkets, ornamints and jewels what yer keep in the under drawer of yer washstand; and last, but not least, I want all the pie and cake yer was makin' this mornin' and all the gooseberry jam on the top shelf of yer storeroom. And if yer don't care to give it to me," the tramp winked slowly and made a motion as though to draw a revolver from his breast, then repented and went on:

"Yer see I have pervided myself with a place to stow 'em in," and he brought forth from under his coat a large and rather gaudy calico bag. He spread this out before him, then fell to shaking again with his horrid, suppressed laughter.

Miss Eliza was stupefied with terror. As this young but awful man laid bare his sinful plan, and enumerated her dearest household treasures, the blood left her cheeks drop by drop, and her round blue eyes opened too wide for tears. When he finished, she could only gasp feebly. Then she found voice to murmur:

"Please, won't you leave the cake-basket?"

The tramp ceased to laugh and looked solemnly at her.

"Why, ma'am," he said, "how can you ask it?" His voice had a disagreeable way of running up into the falsetto. "No, I will leave nothin'." He got up and pulled his hat farther over his eyes. "My time is yours, ma'am, so come along. Sooner or later, it's all the same."

Miss Eliza could not summon sufficient strength to move, but when the tramp winked at her slowly, then covered his mouth with one of those dreadful little hands of his, and indulged in silent laughter, she jumped to her feet with nervous haste and led the way into the house with rapid though tremulous movements. They went from dining-room to parlor. She shut her eyes as the silver teaspoons, candlesticks, tea set and cake-basket were placed in the recesses of the calico bag, and it was scarcely cheering to be told that the "hummin'-birds had best be saved till later, and would do to ornament the top." The paper-cutter in the parlor and the silver salt cellars were also swallowed up. Then the two wended their way up the narrow stairs.

The tramp became every moment more jubilant, and Miss Eliza more wretched. Miss Eliza fully expected to be elaborately murdered when they reached the second floor. This tramp, with his smiling mouth and hollow eyes, with the smooth, small fingers, the convulsive laughter and the cavernous voice, was sure the kind to torture one to death, and hug himself ecstatically at the sight of one's dying agonies. Wherefore she went up the stairs one step at a time, till the tramp snapped his fingers and begged her to step a little lively. Poor Miss Eliza! in all her plump and peaceful life she had never dreamed of such hideous excitement.

At the head of the stairs was the door that opened into Pauline's room, and to this the tramp motioned her. They entered. It was a pretty place. The sunlight filtered through the apple trees and the ruffled curtains, and lay cool and shining on the neat matting and the little white bed that stood in the corner. Water-color sketches were stuck up in every direction, and on the opposite wall hung a picture of Pauline, done by herself. It was not very good, and for a moment or two the tramp paid no attention to it. Then it caught his eye. He took a long stride forward, and stopped as though spellbound with admiration. Then, clutching at his breast convulsively, and with eyes still riveted upon the picture, he said in hollow tones:

"Lord! who may yon angel be?"

Miss Eliza had a moment's hope that all this was but a dream, for the tramp's every movement seemed to grow more unreal and like a nightmare. Then her fears redoubled, and she weakly whispered:

"My niece, Pauline."

"Pauline!" repeated the tramp in dreamy ecstacy, and again, "Pauline!" Then he let go the bag, fell on one knee, clasped his hands and raised them toward the picture.

"O pure and lovely angel!" he exclaimed. "What goodness and what beauty shine from thy heavenly face! How sadly those holy eyes look into my sinful soul!"

Miss Eliza's jaw dropped weakly. Perhaps this was the most astonishing of all the past half-hour's experiences. To be sure, Pauline was a pretty girl, but there had never, as far as Miss Eliza knew, been any marked holiness in her expression or conduct.

The tramp now got upon his feet.

"Ma'am," he said, "I am converted, and 'tis all the work of that angelic creature. I am a-goin' to give up my evil life, and you will be the first of the many new leaves I am about to turn over. But remember, it is all *her* doin'! You will have to thank *her* that the cake-basket remains in the family, and that yer still a-wearin' that hair-brooch. Only, there is one condition that I make;" his voice grew more hollow and he laid his hand on his hidden revolver. "Swear that you will treat her like an angel; that you will refuse nothin' she may ask of yer. Swear! or—"

Miss Eliza swore.

"Farewell, Pauline," said the tramp, with another long gaze at the picture. "I'm a-goin', but I'm carryin' yer image with me in my heart."

He left the room, and Miss Eliza heard his footsteps down the stairs, down the gravel walk, and down the road, till they died away in silence; then she fell down upon her knees, and clasped her desecrated household gods to her ample bosom, murmuring broken thanks.

* * * * * * * * *

Half an hour later, and half a mile down the road, two girls were together in an upper room. One, who was small and fair, was sitting on the floor, both feet curled under her, her chin between her hands and her elbows on her knees—an attitude showing enthusiatic interest. The other, who was tall and had fine eyes, stood before the glass. Her hair was a good deal tumbled, and her hands were dirty; she was busy rubbing burnt cork off her cheeks and eyebrows.

"Do you really think, Polly, she will let you do it now?" asked the little one.

Pauline turned about.

"I am sure of it," she said.

Then, as the last traces of burnt cork disappeared, she leaned toward the glass.

"And it's all the doin' of this angelic creature," she laughed.—Harvard Advocate.

"Footprints in the Sands of Time."

Quarrymen operating in the Portland sandstone quarries in the Connecticut valley, recently blasted out a block 130 feet beneath the earth's surface that was spotted with very interesting and curious marks. The marks, according to scientific men, are footprints of the *anisichnus deweyanus*, which was very common in the valley several million years ago, the beast being a combination crocodile-bird.

It is the opinion of Prof. William North Rice of Wesleyan University, to whom the fossil slab was sold for $100, that at the time the *deweyanus* flourished there was no Connecticut river, but in place of it a bay that was 15 miles wide, extending from the sound to the border of Massachusetts. In that epoch, a good many million years since, this crocodile-bird used to bathe in the bay, then come out of it, shake himself and gambol awhile on the plastic micaceous sand, then on top of the earth; and so he left his mark on it.—Stone.

The Boon of Silence.

And so Peter Martin reluctantly came to the conclusion that he would have to consult a physician. He had never been to a physician in his long life. and to have to go now was bitter to him. It was a luxury. He felt he couldn't afford it. A man who keeps a $10-a-week family on $8 has a hard time of it in this world. For 30 years the roar of the city had been in his ears, and he had had no vacations. So it was just his luck to stumble into the office of the most expensive doctor in the metropolis. If the servant had seen him he would not have gone into the presence of the great doctor, but Martin knowing nothing of how a man whose time is worth $10 a minute is hedged in, and happening to come when the last patient was undergoing examination, walked right from the street, and by good luck, to the infinite astonishment of doctor and patient, stumbled into the consulting room.

"There is something wrong with me" he said, fumbling with his hat. "I don't know just what it is, so I thought I should see a doctor. Which of you is it?"

The patient waived his hand toward the great specialist, and Martin turned his pathetic, appealing glance toward him.

"See what's wrong with him," said the patient in a whisper, who was evidently impressed with the humor of the situation. He thought it funny that so evidently poor a man should consult a physician whose fees amounted into the hundreds.

The doctor asked many questions, and examined his new patient carefully. Then he stood away and looked at him for a moment.

"There is nothing radically wrong with you. What you need is absolute quiet. Medicine will not do you any good. Get out of the roar of the city for a couple of weeks or a month, if possible. Go into the country, to some farmhouse. That's all you need."

Peter Martin sat down with a sigh of exhaustion.

"I cannot get away," he said;" I would lose my place, and, besides, I can't afford it. I get only $8 a week."

"Ah, I am sorry for you," said the doctor, "we have no prescription for poverty."

The wealthy patient put his hand into his pocket and drew out some money.

"Here," he said, "that will help you to a little vacation."

Peter shook his head. He was too nervous and shaky to draw himself up indignantly, as perhaps he should have done.

"I have never taken any money that I did not earn," he said, "and I am too old to begin. How much is your fee?" he asked, looking at the specialist.

"I usually get 25 cents," answered the great man; "that is, of course, where I don't give any medicine."

"Of course," said Peter, simply, drawing out his lean purse and paying over the coin.

"Good morning, gentlemen." And with that, Martin tremulously departed.

"You did that nicely," said the patient, rising. "I must follow him and try to smooth over my blunder."

"Are you going to experiment with him?"

"Perhaps."

Martin, as he walked slowly down the

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eet, felt a touch on his shoulder. He rned and saw the man who had been with e doctor.

"If you come with me, I think I can help u. Will you step into my carriage?"

Somewhat reluctantly, Peter did so. He d not like the man, but there was someing in his dark glance that compelled edience. When the carriage stopped, artin was taken into a house that was curiously furnished.

"Sit down," said the stranger. "Now me understand thoroughly about your cupation."

Martin told him all about it, and the anger listened patiently.

"If I understand you, then, your hearing of no use to you in your business—that is, depends on your sight only. If you were af, you could still hold your place. Am I ht?"

"Quite right," answered Peter.

"Well, then, I want to try an experiment you. I think it will help you; in any se, it will do you no harm. Do you conat?"

"If it will help me."

"I think it will. Now fix your eyes and ention on this."

The machine referred to was a small box h a thin, upright rod, on which were two rizontal arms, each with a small, round, ning mirror at the end. The dark man ched a string and the mirrors rapidly reved. Peter looked at the whirling mirs intently for a moment, then leaned ghtly forward with his eyes widely opened. The stranger, watching him keenly for moments, at last stopped the machine. ter's eyes remained gazing fixedly at hing.

"You are asleep," said the man, quietly, ssing his hand over Peter's face.

The eyelids closed and Peter answered not.

"When you awake you will be stone deaf; will hear absolutely nothing. You will ve to be very careful at the street-crossrs and wherever there is danger. Now ke up."

A shiver ran over Martin's body, and he ked around wildly for a moment.

"What have you been doing to me?" he ed.

"Can you hear me speak?" said the man, dly.

"What have you done to me?" repeated ter. "Everything seems unnaturally et."

The dark man drew a writing-pad toward n and wrote on it, handing the result to ter. He read the words:

"You are stone deaf. Try the effects for weeks and then come back and see me. at any time before, you wish to have your aring restored, come to this address. Try effect for two weeks if you can stand it."

Here followed the man's name and adess. Peter folded the paper in a dazed t of way and put it into his pocket. He nt out into the street. The traffic was as sy as ever, but an awful silence was over city. There was something unearthly in appearance of bustle and the absence of sound. He was in a city of phantoms, d it frightened him at first, but finally ere seemed to come over him a sweet ace, because noise did not exist.

When he went home that night his good fe received him as she had done these ny years.

"Now you old good-for-nothing, what's pt you? Here I am toiling and moiling d getting something to eat for an old fool t doesn't know enough to come home for before it's cold. Nice sort of a family n you are, you doddering old—say! what you looking at me like that for? What's matter with you? Been drinking again?"

Now Peter neither drank nor smoked, ich no one knew better than Mrs. Sally artin. He couldn't afford either, but, as always winced when she accused him of she accordingly flung it at him.

"Sally," he said quietly, "I'm deaf. I ppose you are speaking to me, but I cant hear a word. You'll have to write it wn."

"Write it down!" cried the good woman hast.

She had some idea that he was shamming, t as she watched him she saw that this s serious. She broke out occasionally in ath, but quickly subsided and murmured: Oh, Lor'!"

And Peter Martin spent the first evening peace at his own fireside for twenty years.

In two weeks Peter Martin called on the rk man in the fine house. He was look very much better in health than he had ne when he left that place a fortnight bere. The far-away look of the deaf was eady beginning to appear in his eyes. A eet serenity sat upon his countenance.

"I am pleased to see you look so—" Then e man remembered and drew his writing-d toward him.

"If you will sit down in the chair, I will take away your deafness," he wrote.

Peter read it with a smile.

"I merely came to thank you," he said. "I will not sit down."—Detroit Free Press.

Young Folks' Column.

A Second Trial.

It was commencement at G—— College. The people were pouring into church as I entered it, rather tardy. Finding the choice seats in the center of the audience-room already taken, I pressed onward, looking to the right and to the left for a vacancy. On the very front row of the seats I found one.

Here a little girl moved along to make room for me, looking into my face with large, gray eyes, whose brightness was softened by very long lashes. Her face was open and fresh as a newly-blown rose before sunrise. Again and again I found my eyes turning to the rose-like face, and each time the gray eyes moved, half-smiling, to meet mine. Evidently the child was ready to "make up" with me. And when, with a bright smile, she returned my dropped handkerchief, we seemed fairly introduced. Other persons, now coming into the seat, crowded me quite close up against the little girl, so that we soon felt very well acquainted.

"There's going to be a great crowd," she said to me.

"Yes," I replied; "people always like to see how schoolboys are made into men."

Her face beamed with pleasure and pride as she said:

"My brother's going to graduate; he's going to speak; I've brought these flowers to throw to him."

They were not greenhouse favorites; just old-fashioned domestic flowers, such as we associate with the dear grandmothers; "but," I thought, "they will seem sweet and beautiful to him for his little sister's sake."

"That is my brother," she went on, pointing with her nosegay.

"The one with the light hair?" I asked.

"O, no," she said, smiling and shaking her head in innocent reproof; "not that homely one with red hair; that handsome one with brown, wavy hair. His eyes look brown, too; but they are not—they are dark blue. There! he's got his hand up to his head now. You see him, don't you?"

In an eager way she looked from me to him, as if some important fate depended upon my identifying her brother.

"I see him," I said; "he's a very good-looking brother."

"Yes, he's beautiful," she said with artless delight, "and he's good, and he studies so hard. He has taken care of me ever since mamma died. Here is his name on the program. He is not the valedictorian, but he has an honor for all that."

I saw the little creature's familiarity with these technical college terms that she had closely identified herself with her brother's studies, hopes and successes.

"He thought at first," she continued, "that he would write on 'The Romance of Monastic Life.'"

What a strange sound these long words had whispered from her childish lips! Her interest in her brother's work had stamped them on the child's memory and to her they were ordinary things.

"But then," she went on, "he decided that he would rather write on 'Historical Parallels,' and he's got a real good oration, and he says it beautifully. He has said it to me a great many times. I 'most know by heart. O! it begins so pretty and so grand. This is the way it begins," she added, encouraged by the interest she must have seen in my face: "'Amid the permutations and combinations of the actors, and the forces which make up the great kaleidoscope of history, we often find a turn of Destiny's hand.'"

"Why, bless the baby!" I thought, looking down into her proud face. I can't describe how very odd and elfish it did seem to have those sonorous words rolling out of the smiling infantile mouth.

The band, striking up, put an end to the quotation and to the confidences.

As the exercises progressed, and approached nearer and nearer the effort on which all her interest was concentrated, my little friend became excited and restless. Her eyes grew larger and brighter, two deep red spots glowed on her cheeks. She touched up the flowers, manifestly making the offering ready for the shrine.

"Now it's his turn," she said, turning to me a face in which pride and delight and anxiety seemed equally mingled. But when the overture was played through and his name was called, the child seemed in her eagerness to forget me and all the earth beside him. She rose to her feet and leaned forward for a better view of her beloved as he mounted to the speaker's stand. I knew by her deep breathing that her heart was throbbing in her throat. I knew, too, by the way her brother came to the front that he was trembling. The hands hung limp; his face was pallid and the lips blue, as with cold. I felt anxious. The child, too, seemed to discern that things were not well with him. Something like fear showed in her face.

He made an automatic bow; then a bewildered, struggling look came into his face, then a helpless look, and then he stood staring vacantly, like a somnambulist, at the waiting audience. The moments of painful suspense went by, as still he stood as if struck dumb. I saw how it was, he had been seized with stage fright.

Alas! little sister! She turned her large dismayed eyes upon me. "He's forgotten it," she said. Then a swift change came into her face, a strong, determined look, and on the funeral-like silence of the room broke the sweet child voice.

"'Amid the permutations and combinations of the actors and the forces that make up the great kaleidoscope of history, we often find a turn of Destiny's hand'—"

Everybody about us turned and looked. The breathless silence, the sweet childish voice, the childish face, the long, unchildlike words produced a weird effect.

But the help had come too late, the unhappy brother was already staggering in humiliation from the stage. The band quickly struck up, and waves of lively music were rolled out to cover the defeat.

I gave the sister a glance in which I meant to show the intense sympathy which I felt, but she did not see. Her eyes, swimming with tears, were on her brother's face. I put my arm around her. She was too absorbed to feel the caress, and before I could appreciate her purpose she was on her way to the shame-stricken young man, sitting with a face like a statue's.

When he saw her by his side the set face relaxed and a quick mist came into his eyes. The young men got closer together to make room for her. She sat down beside him, laid her flowers on his knee and slipped her hand in his.

I could not keep my eyes from her sweet, pitying face. I saw her whisper to him, he bending a little to catch her words. Later, I found out she was asking him if he knew his "piece" now, and that he answered yes.

When the young man next on the list had spoken, and while the band was playing, the child, to the brother's great surprise, made her way up the stage steps, and pressed through the throng of professors and trustees and distinguished visitors, up to the college president.

"If you please, sir," she said with a little courtesy, "will you and the trustees let my brother try again? He knows his 'piece' now."

For a moment the president stared at her through his gold-bowed spectacles, and then, appreciating the child's petition, he smiled on her and went down and spoke to the young man who had failed.

So it had happened that when the band had again ceased playing, it was briefly announced that Mr. —— would now deliver his oration—"Historic Parallels."

"'Amid the permutations and combinations of the actors and the forces which'"—This the little sister whispered to him as he rose to answer the summons.

A ripple of heightened and expectant interest passed over the audience, and then all sat stone-still, as though fearing to breathe lest the speaker should again take fright. No danger. The hero in the youth was aroused. He went at his "piece" with a set purpose to conquer, to redeem himself, and to bring back the smile into the child's tear-stained face. I watched the face during the speaking. The wide eyes, the parted lips, the whole rapt being said that the breathless audience was forgotten, that her spirit was moving with his.

And when the address was ended, with the ardent abandon of one who catches enthusiasm in the realization that he is fighting down a wrong judgment and conquering a sympathy, the effect was really thrilling. That dignified audience broke into raptuous applause; bouquets, intended for the valedictorian, rained like a tempest. And the child who had helped to save the day—that one beaming little face, in its pride and gladness, is something to be forever remembered.—Our Dumb Animals.

MIKE: "It's like owld times to see you again, Pat. Why did you niver wroite me a latther since last we mit?" PAT: "Oi didn't know yer address, Moike." MIKE: "Thin why in the name o'sense did ye not wroite for it?"

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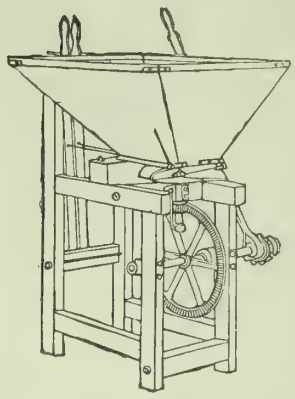

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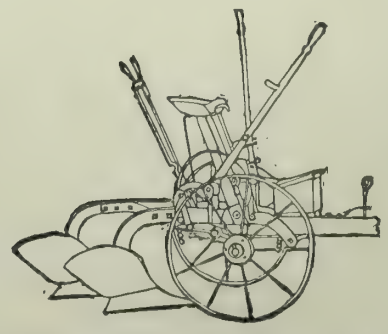

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AGRICULTURAL NOTES.

CALIFORNIA.

Fresno.

PACKING GRAPES AND MARKETING. — J W. Myer in *Expositor:* The trouble heretofore is that the grapes have not been properly packed in the crates for shipment. The custom has been to throw them into boxes and crowd them down, and this results in breaking many of the grapes loose from the stems and causes them to spoil, or at least it damages them greatly. The proper way is to pack the grapes and not put them into the boxes at once, but let them lie a few days until the stems wither and then they can be packed in the crates without any of the individual grapes breaking from the stems. By allowing stems to wither they become soft and yielding, and in putting them into the crates they are not injured. This is the secret of the success. People don't like to buy grapes when a large part of them are broken from the stems, and by allowing them to become in the right condition they can be taken to market and sold to advantage. There are large quanties of grapes in Fresno county that the people in the East would be glad to eat and would willingly pay for. But, on the whole, it cannot be said that the success in sending grapes East has been always encouraging. Many a man has sent them and did not get enough out of the returns to pay the freight. Sometimes, in fact, no buyer could be found at all; and it does not require many experiences like this to disgust an ordinary son of Adam. For this reason the business of sending grapes to markets beyond the Rocky mountains is not in great favor at the present time among the vineyardists of Fresno. Many of them prefer to get $7.50 for them, sold to the wineries, or to the distilleries, where they are made into brandy. This season many tons have been sold at these figures, and in some instances a large acreage has been sold at smaller prices. It may be that one remedy for this will be found in the suggestion that the grapes be not packed in too great a hurry. Let the stems have time to wither and become pliant. When this is done, no doubt many a carload of grapes will be sold from the Fresno vineyards where now scarcely a ton is sold. The object in the grape industry, as in so many others, is to extend the demand. The best commodity in the world would have comparatively little value if nobody would buy it; and it is a truth proved by experience that few people buy an article that is not presented in the proper manner. Two things are, therefore, necessary in order to sell what is grown. One is to grow something that people want, and the next is to present it in good condition in the markets.

CALIFORNIA VEGETABLES.—*Expositor:* J. W. Myer, in speaking of the shipment of vegetables from California to the East, says it may be news to some people to learn that potatoes and cabbage are shipped to the Mississippi valley from the San Joaquin valley. Yet such is the case. This year the crop of these vegetables has been very short in the States beyond the Rocky mountains, and California has been called upon to supply what is needed. So far, it has met all demands of this sort, and many a carload of potatoes and many a gondola of cabbage has gone over the road toward the East upon that long pilgrimage from which no cabbage returns.

Humboldt.

ANOTHER CREAMERY.—Eureka *Standard:* The Occidental Creamery Company has been organized on the island and a plant will be put in place immediately. The plant will be on the same plan as the Diamond Springs creamery, and those two establishments will be the finest and largest in the country. We cannot have too many of them and we are glad to see our farmers taking hold of the business.

CLOVER ON TABLE LAND.—G. W. Griffin of Table Bluff in *Watchman:* I often hear it asserted that clover cannot be successfully grown on table land. My views and experience prove to me that the fault lies more in the sower than in the soil. Grass and clover usually are sown with other crops. These shade them until harvest, when, spindling and the life choked out of them, they are thrown out unprotected, in a soil already exhausted of strength and moisture, to make the desperate struggle for existence as the dry weather sets in that has ripened the crop just gathered. With such most unfavorable conditions, should the clover rally with the early rains, and produce a top to start the root, stock is turned in to graze the life out of the roots. With great assurance, such persons now claim that it will start all right but will not last. Others sow only half enough seed, and it takes years to get a good stand, and we have a discouraging report from them that it does not pay to wait for it to become a profitable yield. Now let us give this product all the favorable conditions, before accepting an opinion based on such faulty experiments and passing sentence of condemnation upon it. The ground should be prepared with reference to its growth, as we do for any crop that we expect to yield a profit. In this preparation there is one suggestion I should like to present for consideration, especially on the closer soils, that we turn under a coating of dried vegetation and follow the breaking plow with a shovel plow. This furnishes a drain and a reservoir of moist earth beneath, where it is not disturbed by the next plowing, and to supply the roots of clover with moisture during the dry season. Sow plenty of seed without any other crop on the ground. Before the dry weather sets in, allow the crop to get large enough to stimulate and keep the roots growing, and thus draw the moisture from the bottom of the shovel-plow furrow, and, ere long, a different conclusion will be reached than the one so generally accepted.

Orange.

THE CORN CROP.—Santa Ana *Blade:* G. W. Moore says: Last year we shipped about 4000 sacks, averaging over a dollar a sack. This year we will ship considerably more than last. Prices, however, are a little lower than the same time last year. There is no foreign demand for our corn this year, probably due to the fact that there are good crops elsewhere. The entire corn crop shipped from Santa Ana is at least 20,000 sacks. The crop this year is lighter than usual, but there will be more than 20,000 sacks of corn shipped out of this city this season.

THE SUGAR REFINERY.— Anaheim *Gazette:* The board of directors of the sugar refinery met in session with the board of directors of the Sugar Beet and Land Co. for the purpose of hastening the work of deeding the lands of the latter corporation into the refinery. There are from 800 to 1000 shares held in town which have not yet been deeded in, but which will probably be deeded in a few days. The farmers of this section have already deeded in 1600 acres, and with the number of acres to be deeded by the people of this city and the 500 acres to come from the Stearns' Ranchos Co., a sufficient acreage will have been secured to start operations going. It is the intention of the directors of the first-named corporation to apply for a license to make sugar immediately, and also to order beet-seed and make contracts for the refinery buildings. There are good grounds for believing that these three important items will be consummated within the next two weeks. The refinery is an assured fact, and the recent newspaper reports about the probable "collapse" of the enterprise on account of Cleveland's election are entirely without foundation.

Placer.

CITRUS NOTES.—Auburn *Republican:* The oranges in and about Auburn are beginning to take on a yellow tint, and soon the gold spheres, with their background of rich ever green foliage, will be a beautiful sight to look upon. Placer county has 60 acres of oranges in bearing, and young orchards which make a total of 55 acres more. The trees this season are well filled with the golden fruit. Lemon culture in this county is not very extensive, as there are at present but six acres in bearing with 13 acres of young orchards.

San Bernardino.

EXTENSIVE STOCK YARDS AT THE SUGAR FACTORY.—*Champion:* A visit to the stock yards east of the sugar factory shows preparations for fattening stock on quite an extensive scale. Mr. Gird has added eight new yards, with a capacity of about 600 head of cattle. This makes 36 yards, with a total capacity of about 1600 head of cattle. Several weeks ago, Mr. Merrill, of Santa Monica, placed 63 head of Texan cattle here to be fattened on beet pulp, and they are now about ready for market. They took to the pulp kindly, began to gain flesh at once, and are now in prime condition. Mr. Gird has at present 338 head of cattle and 400 head of sheep in the yards. These cattle are mostly of the lot recently brought from Arizona, and are already beginning to have an appetite for their new feed Beet pulp is best fed with hay, and Mr. Gird has stacked at the yards probably about 200 tons of choice hay. This, with the 10 000 tons of pulp on hand in the great silo, will furnish forage for quite a large herd of cattle while they are putting on marketable flesh. A line of railway is run into each side of the silo below the yards, and the tram cars are loaded in the bed of the silo itself, then run up between the two rows of yards and emptied into the feed troughs, where it is mixed with hay. Mr. Gird will, in a day or two, add some 300 head more to those feeding, and will probably add others from time to time to the capacity of the yads, as he has enough cattle on the ranch now to keep the yards full of fattening stock. The sheep being fed on pulp are right "at home," and are fattening remarkably fast. The pulp is without doubt one of the very best articles for stall-feeding that has ever been used, and the quality of the meat produced is first class.

San Diego.

OTAY IRRIGATION.—San Diegan *Sun:* The Highland Irrigation and Pumping Co. is pushing the construction of its well, near the head of the Otay valley. It is about one mile northeast of Nestor and one-half mile east of the Otay wells on the sand flats. The lands tributary to the well are all under cultivation, either in grain, beets or fruit. The excavation was begun about two weeks ago, and now the well is 42x18, to be curbed. The depth is 14 feet. Water was found in the gravel and bowlders. On Friday morning a force of ten carpenters, under J. A. Landis, began to construct the wooden curb. The company expects to put in a Worthington steam pump with a capacity of 1,000,000 gallons daily. The reservoir's capacity is to be 2,000,000 gallons. The 20 ranchers have the utmost faith in this scheme, and their spirits are brightened by the assurances of the many residents that it will be a success. Another irrigation enterprise is that of W. W. Johnston, Cyrus Johnston and J. J. Johnson, who together began, about two months and a half ago, to sink a well in the Otay river-bed on the ranch of Cyrus Johnston. The location is on a line with the Babcock well, about a quarter of a mile southeast. It was first made with a frame curbing so that a circular brick wall could be run up with an inferior diameter of 15 feet. The pump is operated by six horses and has a capacity of about 20,000 gallons an hour. An engine will be put in next spring. With the present apparatus, the three ranches can be irrigated easily by wooden troughs. Next season the three ranchers will set out more fruit trees and improve their lands as rapidly as possible now that they have the water question settled.

Tulare.

VINEYARD NOTES.—C. J. Berry in Visalia *Times:* There is not one man in ten in the vineyard business who knows how, or comprehends the proper way, to prune his vines to get the best result. The Mussel slough country is to a great extent a very fine producing locality. Scarcely in these United States, or the world for that matter, can one find a better country than that one. Only one exception—and that is our own district of Visalia. The writer has produced here raisins that in quality cannot be equalled in any district. In broad daylight, with no cover on them, no preparation, pound for pound, neither the Hanford, Tulare City, Traver, or Fresno county products can approach them. The quality is not only superior, but the quantity—yield per acre—is far ahead of anything that any other raisin-growing country can produce, that I have ever heard or read about. On 16 acres of Muscat vines that were planted 2½ years ago, the yield is 23 tons of raisins, of which more than 50 per cent of the first crop is layers, choice ones, and the entire second crop is all layers. This case is not exceptional. There are several of our citizens who are growing grapes in our district and the yield of their vines is equally phenomenal. Lands that will give such returns ought not go a begging for purchasers, and when a customer is found who has some little inclination to buy, one almost has to force the acres down into his breeches pocket and the price he gets for it is a mere song. We have got plenty of such lands about Visalia and we are looking for buyers; but, Mr. Editor, our citizens themselves don't blow their own horns enough. Now that politics are about done with for a time, for which let us all pray and give thanks, let us Visalians put our shoulders to the wheel and bring our district to the front. It is the best in the State. The soil is more productive and the quality produced—raisins and fruit—is better than any other part of our own State can show up. I mean peaches as well as raisins, lemons well as prunes, and our lands are dirt cheap.

Yuba.

MOUNTAIN HOPS.—Sacramento *News:* Hop-growing in the vicinity of Brownsville was an experiment with W. H. Becker and John A. Logan, who put out and poled about six acres this season. The yard is located in a canyon 3000 feet above the sea level. The sample shows small, well-colored catkins, rich with lupuline. The field weight was 3½ pounds per pound of the dried article, which is one-half pound less than the valley-hops run, showing a greater amount of the brewing elements The crop turned off 24 bales. Mr. Becker thinks that, under favorable circumstances, a ton to the acre can be raised. This season a frost occurred June 17th—something very unusual—and a great many of the arms were bitten, which prevented the possibility of an average yield. It is well known that the best and richest hop in the world is produced in elevated regions, an instance being that of the Schwartz mountains in Bohemia. Doubtless the growing of hops in the small but rich mountain valleys of California will develop the fact that equally good hops can be grown here as in Bohemia. Mr. Becker has been offered 18 cents for his crop but has refused it.

ARIZONA.

CATTLE NOTES.— Mesa *Free Press:* W. E. Pomeroy about two weeks ago brought down from Verde ranges 132 head of cattle. A few days ago his men brought down 175 more, and the majority of them is in fine condition. They were rounded up in the Verde mountains, near Camp creek. The boys left again Tuesday morning for the range for another lot.

TUCSON *Citizen*, Nov. 16: Many of the cattle of the Interocean Cattle Co. have been driven on to the south side of Mt. Lemon, and are grazing 9000 feet above sea level. The snow at this point at one time last winter was over six feet deep. It is estimated that over 50 per cent of the cattle of the San Pedro river will perish within four months from starvation. Ranges that were formerly rich with alfilerilla, bunch grass, mesa grass, mesquite grass and gramma, are now as devoid of feed as the streets of Tucson.

NEVADA.

CATTLE NOTES.—Reno *Gazette*, Nov. 17: The following stock was shipped on this morning's west-bound freight train: Six cars of sheep from D. Biggs, Reno, to J. G. Johnson & Son, San Francisco; two cars of calves from Mr. Griffin, Carlin, were consigned to Horn & Chapman, San Francisco; and fourteen cars of cattle from S. F. Estrado to Horn & Chapman, San Francisco.

Elko *Free Press*, Nov. 19: Barney Horn has been purchasing a large number of beef cattle in this neighborhood during the past week or two. Tuesday he shipped 14 carloads, including two cars of calves from Carlin. On the 21st he will ship 21 carloads from Iron Point, and on the 25th he will ship 25 carloads from Carlin.

Winnemucca *Silver State*, Nov. 19: More than 4500 head of cattle are feeding on the Big Meadows of the Humboldt, and the number will likely be increased by 500 from eastern Oregon. Then there are two bands of 5000 and 2500 sheep pasturing and being fed.

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Order from the general agent for California. The machine will cost you less than by single shipment direct from the factory at Chicago.

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The members of the Kern County Land Company have a national reputation for wealth, business and financial ability. These facts set the matter of reliability at rest. The company's capital stock is $10,000,000.

They have 400,000 acres of arable, irrigable lands upon which the sun shines almost constantly; and their enormous irrigation system renders them independent of the annual rainfall.

A clear title; rotation, variety and certainty of crops; easy terms; availability to persons in moderate circumstances; ground ready for the plow—no stones nor thistles; good society; schools; churches, etc., are a few notable attractions of this region of country.

Kern is the largest county in the San Joaquin Valley. It has the finest climate for curing and drying fruits, etc.

The 400,000-acre territory of the Kern County Land Company is the pick of the county.

Its area is 5,184,000 acres.

Has the largest irrigation system in America.

The home of the peach, French prune, pear and raisin grape.

Planting and harvesting can be carried on every month in the year.

No rocks, hills or stumps on the land.

A failure of crops is unknown on irrigated lands.

Kern county fruits take the first prize at the State Fair.

Land can be made to pay for itself in less than three years.

Grows more alfalfa than any other county in California.

The advantages of good soil and plenty of sun, which occur in the Kern Valley, would have been of little avail but for the third and all-important one of an abundance of water from never-failing sources.

Through 300 miles of main canals, and 1,100 miles of laterals, the great Kern river furnishes enough moisture to slake the thirst of the 400,000 acres already referred to.

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BEWARE OF CHEAP IMITATIONS.

One gallon, mixed with 60 gallons of cold water, will dip thoroughly 180 sheep, at a cost of one cent each. Easily applied; a nourisher of wool; a certain cure for SCAB. Little's dip is put up in red, iron drums containing 5 English or 6¼ American gallons, and is sold to the trade by the English gallon. For the convenience of our many customers it is also put up in one-gallon packages, for which we make no extra charge. Each drum and package bears the label of "Little's Dip."

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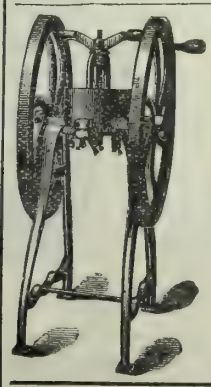

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FOR POULTRY FOOD.

Patented June 15, 1886; August 20, 1889. Canada Patent, June 12, 1890.

WE WARRANT this machine to cut Dry or Green Bones, meat, gristle and all, by Hand Power, without clog or difficulty, or MONEY REFUNDED.

GREEN CUT BONE WILL DOUBLE THE NUMBER OF EGGS, will make them 25 per cent more fertile, and increase the vigor of the whole flock. COST OF FEEDING MATERIALLY LESSENED.

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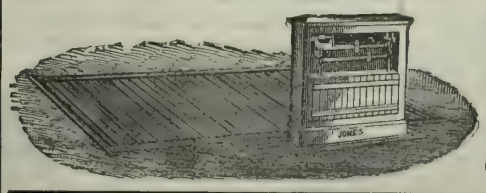

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Cement Walks.

A correspondent writes and asks the *Operative Builder* to publish some rules or methods for making a cement walk for lawn or garden. As he lives in one of the central States, where the frost is not very severe, perhaps the following method may not only answer his purpose, but may also be of service to others of our readers:

This has been furnished the *Builder* by a practical worker in this department: First, remove all loose earth, and with a heavy earth rammer get the bottom well beaten, having a slight fall to the lowest general point. Then provide the best filling the locality can supply, such as brick rubbish, broken stones, or coarse gravel solidly packed to a sufficient depth from the finished surface required. Coat over this rough ground with a mixture of sharp coarse sand or gravel, six measures of same to one Portland cement. This I get a laboring man to lay on with his shovel, and roughly level. I use a garden syringe to spray over the ground before I lay on. This helps to make it go together compact. I also give to the earth a good ramming. Having my rough prepared thus, I find the level for my finished surface and set two wooden rules about five feet apart. Their upper edge must be straight, and set level to height of floor required. I then fill in a mixture of four parts sharp clean gravel to one Portland cement between the rules, and with a straight edge I get a good level surface by rubbing same to and fro, taking down all mixture that stands over rules. This course I also beat gently to a solid body. If a medium finish is required, I merely handfloat, having a mixture of a finer kind to lay on for leveling up any hollows. I also at this point remove my inside or first rule and fill in its space. If a fine finish is required, I then coat over with neat cement, and trowel to a smooth surface. I always finish complete in one body any portion commenced on rough ground. If I cannot complete floor or path, I continue shifting wooden rules, as described, till I get to the finish. Be very careful at each joining to blend with old and new together by roughing up, then sprinkle with water, drudge in cement, and give a rub of stock brush. The strength or thickness of a floor is to be calculated by the traffic or weight it has to undergo. A great deal depends on the solidity of the bottom earth and packing. I have made very good paths and floors, as described, at four inches deep, including the coating of filling materials, the cost to be calculated by the locality where the work has to be done. I have often tested the weight of a cubic foot of cement as emptied out of the bags. On the average, I find it equal to 90 pounds; likewise coarse washed gravel at 99 pounds, four cubic feet of gravel and one cubic foot of cement, when mixed and packed in floors, will reduce to three and a half cubic feet. Knowing the price of these on sight, the quantity required will give the cost plus the labor. I make an allowance of five per cent for waste. The essential point is to have the gravel, sand, or any other mixture clean and free from dust. I generally wash all the sand I use with cement; bring it to a shallow running stream, throw it in, and turn till the water runs clear. In mixing, I lay down rough boards and form a floor. I then get any suitable old box, knock the bottom out and nail two pieces on each side as handles, have my washed sand close by, place the box on floor, and fill water measure, lift box with ease, the sand remains on floor. If a mixture of broken stones is to be added, I level the sand, place box on same, and measure as I did the sand. I then level over the stones and have the proportion of cement spread over evenly—a very handy tool for doing this is a coarse broom, by drawing it toward the workman. I then turn and mix till the cement is evenly distributed. I then wet with a large watering can having a good large rose. I do not mean this as instruction for professional men in towns, but as a hint to poor fellows like myself isolated in a country village.

ABOUT the last logging that will be done in Michigan, Wisconsin and other lumbering States, according to the *Woodworker*, will be that of reclaiming the millions of feet of sunken logs which now lie in the streams of those States.

IMPORTANT TO FARMERS.

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TO LOAN IN ANY AMOUNT AT THE VERY LOWEST MARKET rate of interest on approved security in Farming Lands. A. SCHULLER, Room 8, 420 California Street, San Francisco.

Exterminating Mosquitoes Around a Country House.

A writer on the subject of the extermination of the mosquito tells of an experiment he made with kerosene as the destroying agency in the Catskills. Noticing a few mosquitoes about the porch of his cottage on July 5th last, he made a search for their breeding place and found it in a rain-water pool, having a surface area of 60 square feet, in the neighborhood. Eggs had been deposited freely on the water, and it was very plain that the cottager was destined to be annoyed by innumerable mosquitoes unless a remedy was applied at once. He determined to apply kerosene, and sprinkled four ounces of it over the surface of the pool. At the end of ten days it was covered with dead insects, which the writer estimates at 7400. Most of them were gnats, but there were 371 female mosquitoes and many males. The number may appear trifling enough, but on that score the experimenter has this to say: "Now, the average number of eggs laid by a female mosquito is 300, and the destruction of these 371 specimens prevented the development of 111,300 individuals of the next generation. Moreover, certain females flew away after touching the surface of the water and undoubtedly died at some distance from the pool, so that the effect of the application was even greater than these figures indicate. In fact, the capacity of the remedy was only limited by the number of the mosquitoes seeking the surface of the pool for egg-laying purposes, and in a locality of greater mosquito abundance the estimates of the potentiality of the remedy would have been enormous. And now as to the question of expense. This experiment proves that at this rate of application one barrel of kerosene costing $4 50 (and the cheapest of oil is preferable to the more expensive) will successfully treat 96,000 square feet of water surface. It is probable that there are many mosquito-ridden neighborhoods where the total area of the breeding places does not exceed this figure, and where at the slight expense mentioned, provided the application be made early in June, so as to head off the first generation, the numbers of the biting pest may be reduced to a minimum.—N. Y. Evening Post.

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RHEUMATISM,

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BRUISES, BURNS, SWELLINGS,

NEURALGIA.

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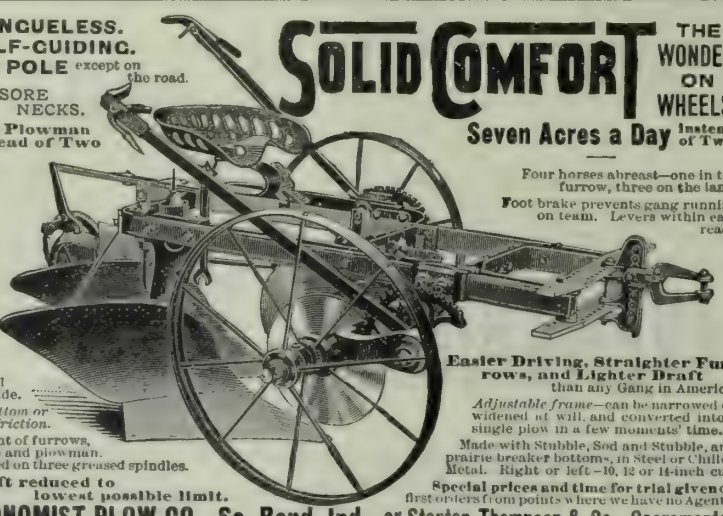
TONGUELESS. SELF-GUIDING. NO POLE except on the road.

NO SORE NECKS.

One Plowman Instead of Two

SOLID COMFORT THE WONDER ON WHEELS.

Seven Acres a Day Instead of Two.



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Foot brake prevents gang running on team. Levers within easy reach

Easier Driving, Straighter Furrows, and Lighter Draft than any Gang in America.

Adjustable frame—can be narrowed or widened at will, and converted into a single plow in a few moments' time.

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Wheel landside. *No bottom or side friction.*

Weight of furrows, frame and plowman, carried on three greased spindles.

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Special prices and time for trial given on first orders from points where we have no Agents.

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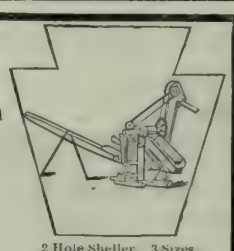

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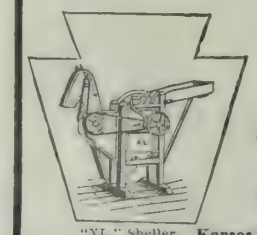

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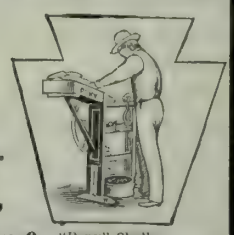

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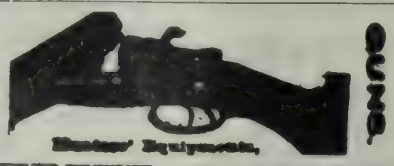

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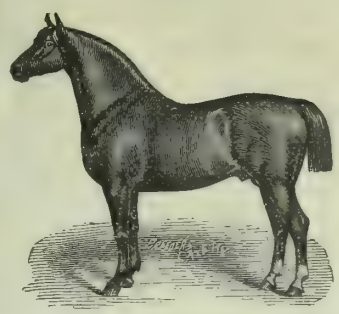

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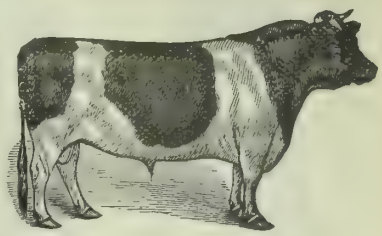

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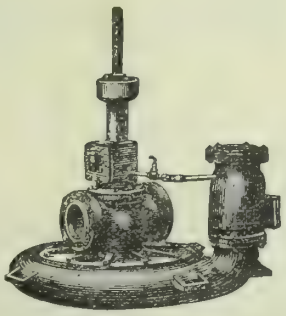

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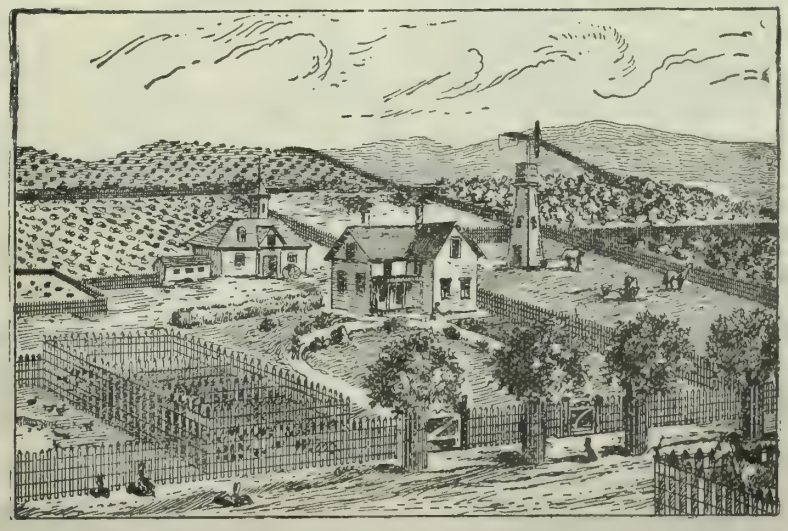

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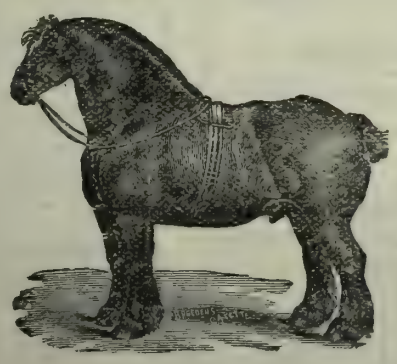

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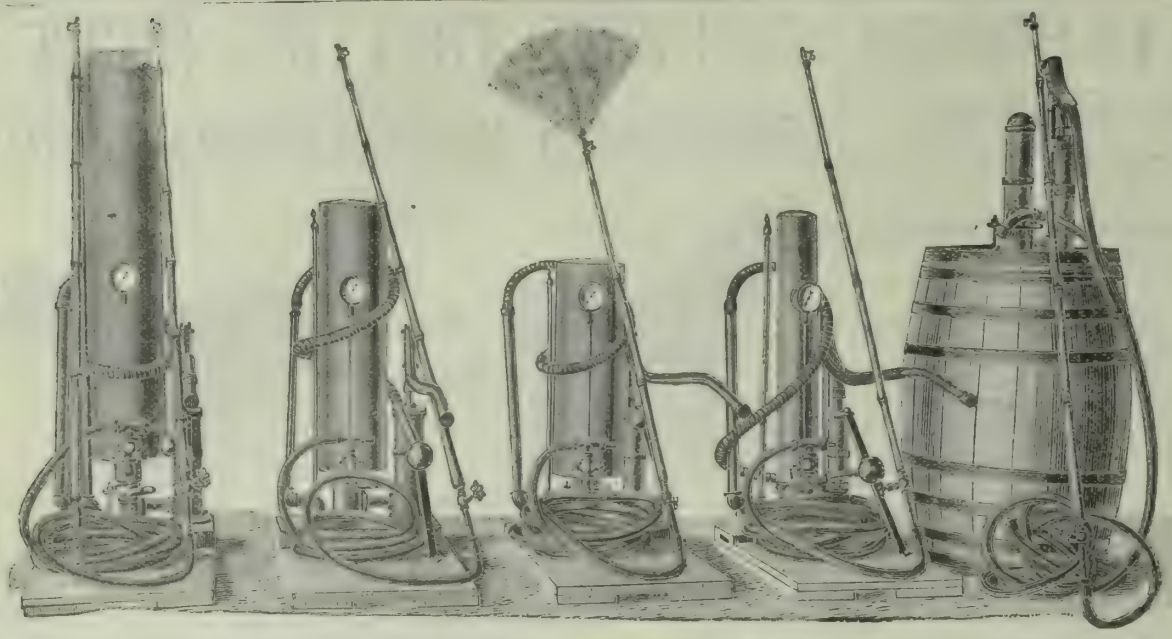

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Your neighbor will tell you that he can spray MORE TREES IN A DAY with the Bean Pump than with any other.

DO NOT FAIL TO USE THEIR NOZZLES.

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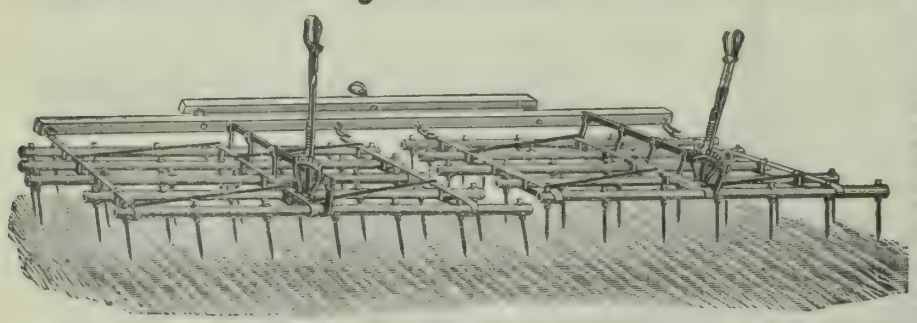

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No. 31, " " " " 90 " " 16 " " " " 45
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No. 26, " " " " 50 " " 8 " " " " 25

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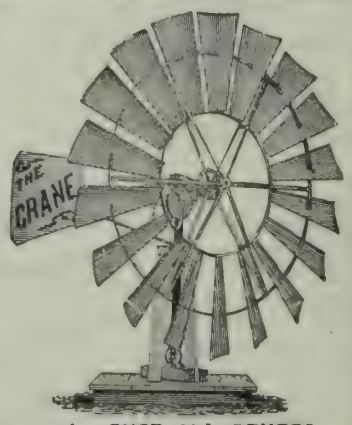

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No. 530 California Street,

Telephone No. 1746. SAN FRANCISCO, CAL.

S. F. Market Report

Market Review.

San Francisco, Nov. 22, 1892.

General trade the past week in farm produce has been confined largely to holiday requirements. The market has held to fairly steady prices, for only in isolated cases did prices fluctuate. There is a general impression that very few changes in the market price of leading articles of the farm will take place until after next month. The absence of rain is having considerable influence in creating a bullish feeling with holders of grain, yet this feeling is not likely to be very pronounced until we have entered well into next month. Rains in Wasington and threatening weather towards the close in this State cause the weatherwise to expect rains soon. There is no use of trying to deny the fact that the lands in all parts of the State want good soaking rains to insure, even with favorable spring weather in 1893, good crops.

The local money market does not exhibit any material change. Exchange on New York is wanted and for which good rates are offered. This is accepted as proof that large incorporated (railroad and others) companies doing business in this State are free remitters to the East, so as to meet interest and dividends which will have to be paid out there. Merchants, grain dealers and the farming community requirements are not urgent. As a rule they are payers rather than borrowers.

Cereals.

During the past week wheat has held to fairly steady prices abroad. The foreign markets appear to be favorably influenced by a falling off in the European stocks, which were about 19,000,000 bushels less, at last advices, than were held at the corresponding time in 1891. While the smaller stocks abroad exert a favorable influence, the large increase, about 35 000,000 bushels, in the stocks in the United States and Canada, over that held at the like date in 1891, is unfavorable; for, with such a large supply to draw from, bull operators abroad will hardly dare operate largely, even at present low prices. The exports from the United States, during the first nine months in this year compared with the corresponding time in 1891 are as follows: 1892, 91,466,112 bushels; 1891, 83,812 096 bushels. These exceptionally heavy shipments must necessarily tell heavily on our reserve later on in the present season, particularly with the crop in this country over 110,000,000 bushels less than was that of 1891. Not only have the exports of wheat been very heavy, but those of wheat flour show up large. During the nine months ending with September, the exports aggregate 12,540,728 bbls. in 1892 and 9,117,493 bbls. in 1891. The local wheat market has held to fairly firm prices, although futures fluctuated slightly. The export movement has been fairly free. Buyers claim that they are able to meet all their requirements without bidding up, except large parcels for special purposes. While they claim they are able to meet current requirements without bidding up, yet they have not been successful in breaking spot or cash wheat, as they had confidently expected.

Barley has held fairly firm for spot or cash parcels, but for futures lower ranges have obtained. The export movements were light and promise to continue so until probably after the turn of the year, when it is expected that a renewed brewing demand will set in. In this State, it is said, the consumption continues large, although in many localities there has been a falling off, owing to improved pastures, but unless we have generous rains soon the pastures will give out in a majority of localities. Receipts of barley from up north have so far in this season been very light.

The receipts of oats have been light, but the market did not respond, owing to buyers fighting against an advance. Any advanced pretensions on the part of holders, turn consumers to roll or grain barley. The supply in this State and up north is said to be considerably less than it was at this time in 1891. The light supply ought to be favorable to holders.

Corn has held to barely steady prices. The receipts have been only fair, as has the demand. The Government report in this month gives the crop this year at over 400,000,000 bushels less than was the crop in 1891, while the exports out of the country have held up well. For the nine months ending with September, the exports compare as follows: 1892, 65,274,289 bushels; 1891, 19,264,161 bushels.

Rye and buckwheat have been in only moderate demand.

Feedstuff.

Ground feed has met with a fair inquiry at fairly steady prices. The tendency of the market does not indicate that there will be any material change until the probable character of the winter is more fully determined.

Although the receipts of hay have been light, yet the market shaded off under stronger selling and buyers being offish. Improved pasture in the more favored localities is said to have cut off quite a demand, which is severely felt.

Dairy Produce.

Butter has held weak up to the close when a steadier tone appears to have set in. Cold and dry weather caused buyers to operate more freely and at the same time induced more buying by the retail trade. Receipts have been light and under the freer movement, stocks have run down. The lower prices which have ruled for fresh butter, caused consumers to turn from pickle to fresh, but with much of an advance in the latter pickle will be in demand again. The Eastern markets are strong and high.

Cheese has not changed materially. Receipts are about equal to the demand.

California eggs are selling for less money. The decline is not so much from an increase in receipts as it is from Eastern fresh-laid selling for Californian. The trade has been running largely on Eastern, which, when fresh and well selected, equal the more choice fresh-laid Californian.

Vegetables.

In garden truck the market has ruled at around last week's quotations. The supply is limited almost entirely to winter varieties.

Potatoes have not changed materially the past week. The low prices ruling for Riversides are inducing speculative buying. Choice, good-keeping Burbanks hold firm under a fair demand. Sweet potatoes are barely steady at 50@75c on the wharf, and 70c@$1 from the store.

Fruit.

Dry weather the past week caused quite an improvement in most of the grapes coming in, yet the general run is poor and has to be sold on receipt. It is the latter that keeps the market in buyers favor. Winter Nelis pears are in fair demand, but poor pears are slow. Apples are meeting with a good demand, but it is hard to get over $1.25 for best high-colored.

Raisins are slow. Buyers are offish. It is hard to get a satisfactory report on the market owing to a pronounced bear feeling. Eastern advices report that dealers continue conservative and do not buy beyond nearby wants, preferring to let sellers hold the goods. As far as we can learn, holders of choice raisins do not express any anxiety over the situation, claiming that it is only a question of time when the demand will be improved. This opinion is grounded on the general impression that there will be a large increase in the consumption during the World's Fair.

In dried fruit there is a strong market at full prices for pitted plums, choice apricots and prunes. The supply of these is light. Peaches, pears and apples are hard to move, except at concessions. Eastern advices report buyers holding off in expectation of lower prices when the consignments are put on the market. It is said that the consignments were so freely distributed it is hard for sellers to act in consort.

Live Stock.

The bulk of our supply of bullocks continues to come from Nevada and from the more favored sections in this State. The market has ruled fairly steady. Mutton sheep are essentially unchanged. Hogs continue to rule firm under a fair demand for the block and for packing.

Miscellaneous.

Receipts the past week were about equal to the demand, which kept the market fairly steady. To-day there were heavy receipts of dressed turkeys and more choice fowls. Dressed turkeys, when in good condition and not too long kept, sold up to 22 cts. for the very best. Choice, well-conditioned hens and roosters sold fairly well to-day. Some Eastern came in.

White and pea beans are firm, but colored as a rule are barely steady.

There is a good demand for nuts for the holidays. The market is oversupplied with poor almonds and walnuts which sell slow. Peanuts are steady.

Hops are reported weaker from the buyer's point of view, but so far as we can learn holders are not disposed to make concessions, claiming that with 1893 better prices are liable to obtain.

Wool has come in only fairly free. The market is reported essentially unchanged.

Hay product is higher with a strong market ruling at the advance.

Mustard seed is wanted and where found commands good prices, provided the grades are good.

Produce Receipts.

Receipts of produce from all sources at this port for 6 days ending Nov. 21 '92, were as follows:

Flour, qr. sks	57,679	Bran, sks	12,030
Wheat, ctls	161,344	Buckwheat "	73
Barley, "	18,148	Middlings "	1,260
Rye, "	....	Chicory, bbls	45
Oats, "	4,724	Hops, "	305
Corn, "	5,490	Wool, "	186
*Butter, "	425	Hay, ton	1,314
do bxs	462	Straw, "	70
do hbls	..	Wine, gals	188,520
do kegs	174	Brandy, "	19,840
do tubs	..	Raisins, bxs	7,910
do ½ bxs	....	Honey, cs	135
†Cheese, ctls	425	Peanuts, sks	449
do bxs	60	Walnuts "	601
Eggs, doz	11,243	Almonds "	322
do " Eastern	11,690	Mustard "	618
Beans, sks	11,043	Flax "	205
Potatoes, sks	20,327	Popcorn "	....
Onions, "	2,467	Broom corn, bbls	....

*Overl'd, 220 ctls. †Overland, 234 ctls.

Exports by Sea from San Francisco from July 1 to Nov. 16.

	1892-93	1891-92
Wheat, ctls	4,602,783	3,862,971
Flour, bbls	515,562	407,628
Barley, ctls	822,468	570,008

Tonnage Movement.

From reliable advices up to Nov. 22, the following summary tonnage movement is compiled:

	On the way 1892.	On the way 1891.	In port 1892.	In port 1891.
San Francisco	251,186	361,922	*159,925	135,268
San Diego	11,784	24,613	1,465	.....
San Pedro	8,201	5,110	.....	.....
Oregon	49,354	66,905	23,582	34,371
Puget Sound	22,352	31,747	.....	
Totals	342,877	490,297	184,972	169,639

*Engaged for wheat, 1892, 40,981; 1891, 107,161.

Markets by Telegraph.

Dried Fruit is Improving.

New York, Nov. 20.—The four sizes of prunes were quoted at the close at 11c, but there is no large offering at the figure. Evaporated peeled peaches brought in a small way 21@23c. Since the suspension of Meinrath Bros., dried fruits have been more or less disturbed, but the interruption will not prove formidable Buyers of unpeeled peaches have deserted the market for the time being, needlessly fearing, it is said, the unloading of numerous spot holdings on this market. Apricots are stronger and steadily clearing up. Sacks, 15½c; boxes, 16½@17½c, spot.

Wool is Strongly Held.

New York, Nov. 19.—Wool.—The week has ruled quiet at all eastern points since the election. There have been attempts to break the market, but sellers are unwavering and respond to forebodings that the depleted supply will cost buyers more before it will less. This is as much the outlook now as before, with the known needs of mills, while the stiff condition of foreign prices reflects with advantage here. Sales at New York: 446,000 pounds of domestic and 282,000 pounds of foreign. Sales at Boston: 1,973,500 pounds of domestic. The sales were mainly in small lots with little California; also 215,000 Australian and 160,000 carpet.

California Wine and Brandy.

New York, Nov. 20.—Based upon the present rate of orders, dealers in California wine expect there will be an unusually brisk holiday demand. Sherry is scarce for trade wants; and shipments are urged if they can be made promptly.

Brandy gives more satisfaction than formerly; even the young lots do not depend so exclusively upon druggists wants as has been the case.

Good Raisins Wanted.

New York, Nov. 20.—There is a good demand for good quality, but the market is irregular and slow for imperfect grades. Many parcels that have hung fire are now pressed for sale. In fact, dealers will make a price for three-crown boxes for a customer rather than let him go. In this way, useful marks have sold at $1.55, and there have been numerous intermediate rates between that price and last week's extreme. Fancy four-crown bags, 7c; choice, 6c; ordinary, but sound, 5½c; two-crown, 4½c; layers, $1.60@2, as to mark.

California Mustard Seed Sells High.

New York, Nov. 20.—California mustard seed has attained the distinction of being quoted right up to the best English. A large sale of yellow is reported at 7½@8c.

Hops are Quiet but Steady.

New York, Nov. 20.—The spot market is tame and featureless, still owners have given brewers useful new at 21@22c, and quote export selections at 23@25c for spot Pacific, and still 24c continues extreme. Exports for the week are 908 bales.

Foreign Wheat Market.

London, Nov. 21.—Mark Lane *Express* says: Deliveries of English wheat from general quality are very low, though during the last few days the condition slightly improved. There was an advance of 2d in Mark Lane, where small business was done, centering chiefly on best foreign wheats, and embracing nearly all Pacific Coast wheat. The price of foreign wheats, however, was kept down owing to large exports from Russia. Wild weather led to a decline in barley to 24s, oats 18s, corn 16s. To-day English wheats are firm; American, 6d higher, with a few sales at an advance of 3d. Foreign wheats unchanged. Good American flour 3d dearer. Little sale for barley, oats, corn.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	Nov.	Dec.	Jan.	Feb.	Mar.	April.
Thursday	5s09½d	5s10½d	5s11½d	6s00½d	6s01½d	6s02½d
Friday	5s09½d	5s10½d	5s11½d	6s00½d	6s01½d	6s02½d
Saturday	5s10½d	5s11½d	6s00½d	6s01½d	6s02½d	6s03 d
Monday	5s10 d	5s10½d	5s11½d	6s00½d	6s02 d	6s02½d
Tuesday	.....	.....	.....	.....	.....	.....

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. O.	P. S.	N. D.	Market for P. S
Thursday	32s9d	32s9 1	33s9d	Steadily held.
Friday	32s9d	32s9d	32s9d	Quiet but steady.
Saturday	33s	33s	33s	Held higher.
Monday	32s9d	33s9d	32s9d	Quiet but steady
Tuesday	....	....	....	....

To-day's cablegram is as follows

Liverpool, Nov. 22.—Wheat—Quiet but steady. California spot lots, 6s 8d; off coast, 32s 9d; just shipped, 32s 9d; nearly due, 32s 9d; cargoes off coast, slow; on passage, rather easie; wheat on passage to continent, 967,000 qrs.; wheat and flour on passage to U. K., 2,632,000 qrs.

San Francisco.

WHEAT.

	Seller '92.	Buyer Dec.	Jan.	May
Thursday, high'st	131	132¾	133½	136½
" lowest	131	132⅝	133	136⅜
Friday, highest	....	132⅞	....	136⅝
" lowest	....	132⅞	....	136½
Saturday, highest	....	132⅞	....	136⅝
" lowest	....	132½	....	136½
Monday, highest	....	132½	....	136½
" lowest	....	132⅜	....	136½
Tuesday, highest	....	....	....	....
" lowest	....	....	....	....

The following are to-day's recorded sales on Call:

Wheat—Morning—Informal: Buyer December—200 tons, $1.32; 300, $1.32½. May—100 tons $1.35⅞ per ctl. Regular session: May—200 tons $1.35⅞; 300, $1.35½; 100, $1.35⅝; 200, $1.35½. Buyer December—700 tons, $1.32½; 900, $1.32 per ctl. Afternoon: Buyer May—200 tons, $1.36. May—700 tons, $1.35½. Buyer December—100 tons, $1.31½ per ctl.

BARLEY.

	Seller '92.	Dec.	Jan.	May
Thursday, highest	....	88½	....	93½
" lowest	....	88½	....	93⅝
Friday, highest	....	88½	89½	....
" lowest	....	88⅜	89½	....
Saturday, highest	....	*89	89½	....
" lowest	....	89⅜	89½	.
Monday, highest	....	88⅝	88¾	93½
" lowest	....	88½	88¾	93½
Tuesday, highest	....	....	....	....
" lowest	....	....	....	....

*Buyer option.

The following are to-day's recorded sales on Call:

Barley—Regular session: May—100 tons, 92½c; 100, 92¼c; 100, 92c per ctl. Afternoon: May—200 tons, 91½c; 400, 91⅜c; 500, 91½c. December—300 tons, 87½c; 400, 87⅜c per ctl.

Eastern Markets.

The following shows the closing prices per cental of wheat for the past week at

New York.

Day.	Nov.	Dec.	Jan.	March.	May.
Thursday	....	127⅞	130½	135½	139
Friday	..	130	132½	137½	141
Saturday	128¼	128	132	137	140½
Monday	127⅞	128¼	131	136	139½
Tuesday	....	....	....	....	....

The following is to-day's telegram—per bushel:

New York, Nov. 22.—Wheat—76⅞c for December, 78½c for January, 81½c for March, and 83¾ for May.

Chicago.

Day.	Nov.	Dec.	May
Thursday	119⅛	121	131
Friday	....	122⅞	133
Saturday	119⅜	121	132
Monday	119⅜	121	131
Tuesday	....	....	....

The following is to-day's telegram—per bushel:

Chicago, Nov. 22.—Wheat—72½c for December, and 78½c for May.

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

November 22, 1892.

Limes, Mex	3 00 @ 4 00	Huckleberries, lb	4 @ 6
Do Cal	2 50 @ 4 00	Extra choice fruit for special purposes sells at an advance on outside quotations	
Lemons, box	5 00 @ 6 00		
Do Sicily choice	6 00 @ 7 50		
Strawberries, pr chest	10 00 @12 00	Beets, sk	— @ 50
Apples	30 @ 60	Carrots, sk	30 @ 50
Do Choice	75 @ 1 00	Okra, dry, lb	8 @ 10
Do Extra choice	— @ 1 25	Parsnips, ctl	1 00 @ 1 50
Grapes, pr bx—		Peppers, dry, lb	7 @ 8
Do White	25 @ 50	Do grn Chili, bx	50 @ 75
Do Black	25 @ 50	Do do Bells	50 @ 75
Do Muscats	25 @ 50	Turnips, ctl	— @ 60
Do Tokays	35 @ 60	Cabbage, 100 lbs	50 @ 60
Do Royal Isabel	1 00 @ 1 25	Garlic, lb	1½ @ —
Do Cornichon	50 @ 75	Tomatoes	25 @ 60
Wine Grapes,		String Beans, lb	3 @ 4
Zinf'nd'l, pr tn	— @18 00	Lima Beans	2 @ 4
Mission	12 00 @15 00	Cucumbers, box	50 @ 85
White	9 00 @12 00	Mushrooms	— @ —
Pears	25 @ 75	Egg Plant, bx	60 @ 75
do Winter Nelis	75 @ 1 25	Mar'fat Squash, ⅌ ton	4 00 @ 8 00
Quinces pr bx	75 @ 1 00	Cauliflower	50 @ 65
Persimmons	1 00 @ 1 50	Celery	50 @ 75
Pomegranates, lb	2 @ 4		

Live Stock.

BEEF.		MUTTON.	
Stall fed	6 @—	Wethers	6½@—
Grass fed, extra	5¾@—	Ewes	6 @—
First quality	5½@—	Do Spring	7½@—
Second quality	4½@—	HOGS.	
Third quality	3 @—	Light, ⅌ lb, cents	5½@—
Bulls and thin Cows	2 @—	Medium	5½@—
VEAL.		Heavy	5½@—
Range, heavy	5 @—	Soft	4½@—
Do light	6 @—	Feeders	4½@—
Dairy	7 @8½	Stock Hogs	4½@—
		Dressed	7 @ 8

Twine and Baling Rope.

BALE ROPE.		TWINE.	
Sisal, 3 yarns	9	Pure Manilla Hop, in balls, tarred	11½
Do, 2 yarns, light	9½	Do, Grapevine, in balls or coils	12
Duplex, 3 yarns	9	Do, Spring	16
Manilla, 3 yarns, heavy	10½	Duplex Hop in balls, tar'd	9½
Pure Manilla, 3 & 4 yarns	12	Do, Grapevine, in balls or coils	10½
Do, 2 yarns, light	12½		

Wine.

Red and White Wine from bay counties, vintage of 1891, per gal., in cellar lots	12 @20
1892 vintage in cellar lots	10 @15

General Produce

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

November 22, 1892.

BEANS AND PEAS.		Do country m'ls	3 90 @ —
Bayo, ctl	2 25 @ 2 35	Superfine	2 50 @ 3 00
Butter	2 75 @ 3 00	NUTS—Jobbing.	
Pea	2 50 @ 2 60	Walnuts, hard shell, Cal. lb	6 @ 8
Red	2 40 @ 2 50	Do soft shell	8 @ 9½
Pink	2 00 @ 2 10	Do paper-shell	9 @ 11
Small White	2 45 @ 2 55	Almonds, sft sh'l	12 @ 13½
Large White	2 25 @ 2 35	Paper shell	13 @ 15
Lima	2 75 @ 3 00	Hard shell	6 @ —
Ekd Peas, blk eye	1 60 @ —	Brazil	8 @ —
Do green	1 75 @ 2 00	Pecans, small	8 @ 10
Do Niles	1 60 @ 1 75	Do large	14 @ 16
Split	4 50 @ 5 50	Peanuts	3½@ 9½
BUTTER.		Filberts	10 @ —
Cal., poor to fair, lb	12½ @ —	Hickory	7 @ 8
Do g'd to choice	20 @ —	Chestnuts	18 @ 20
Do Giltedged	— @ 30	ONIONS.	
Do Creamery	26 @ —	Silverskin	50 @ 75
Do do Giltedge	— @ 32½	POTATOES.	
Eastern, ladie	12½@ —	River Reds	35 @ 45
Cal. Pickled	20 @ —	Early Rose, ctl	40 @ 55
Cal. Keg	20 @ 24	Peerless	60 @ 65
East'rn Cr am'y	25 @ —	Garnet Chilies	60 @ 70
CHEESE.		Burbank Seed's	40 @ 65
Cal. choice cream	9½@ —	Do do Salinas	90 @ 1 20
Do fair to good	8 @ —	Sweet	50 @ 1 00
Do Giltedged	— @ 12	Extra choice sell for more money	
Do Skim	5 @ 6½	POULTRY.	
Young America	— @ 12	Hens, doz	5 50 @ 7 00
EGGS.		Roosters, old	5 50 @ 6 50
Cal. "as is," doz	25 @ —	Do young	5 00 @ 7 00
Do shaky	20 @ —	Broilers, small	3 00 @ 3 75
Do candled	37½@ —	Do large	3 75 @ 4 50
Do choice	42½@ —	Fryers	4 00 @ 5 00
Do fresh laid	— @ 45	Ducks	4 00 @ 4 50
Do do s'led wht e	— @ 47½	Do large	4 50 @ 5 50
Eastern cold-storage	21 @ —	Do extra large	— @ 7 00
Do fresh	25 @ —	Geese, pair	1 50 @ 1 75
Do selected	— @ 32½	Turkeys, gobl'r	15 @ 18
Outside prices for selected large eggs and inside prices for mixed sizes—small eggs are hard to sell.		Turkeys, hens	15 @ 17
		Do dressed	19 @ 22
		All kinds of poultry, if poor or small, sell at less than quoted; if large and in good condition, they sell for more than quoted.	
FEED.			
Bran, ton	14 00@ 15 00		
Feedmeal	26 00@ 27 00		
Gr'd Barley	19 50@ 20 50		
Middlings	20 00@ 22 50		
Oil Cake Meal	— @ 35 00		
Manhatan Horse Food (Red Ball Brand) in 100-lb. Cabinets	— @ 8 00	Manhattan Egg Food (Red Ball Brand) in 100-lb Cabinets	— @11 50
HAY.		GAME	
Compressed	8 00 @11 00	Quail, per doz	1 00 @ 1 25
Wheat, per ton	8 50@ —	Ducks	— @ —
Do choice	— @ 13 00	Do Mal'd ⅌ doz	3 50 @ 5 00
Wheat and oats	8 00@ 11 50	Do Sprig	2 00 @ 2 50
Wild Oats	7 00@ 10 00	Do Teal	1 50 @ —
Cultivated do	6 00@ 9 00	Do Widgeon	1 50 @ 2 00
Barley	6 50@ 9 00	Do small	1 00 @ 1 50
Alfalfa	8 00@ 10 00	Geese	— @ —
Clover	8 00@ 10 00	Do gray ⅌ doz	2 00 @ 2 50
Straw, bale	35@ 50	Do White	1 00 @ 1 50
GRAIN, ETC.		Do Brant	1 00 @ 1 50
Barley, feed, ctl	80 @ —	Snipe	— @ —
Do good	85 @ —	Do English, doz	1 50 @ 2 00
Do choice	87½ @ —	Do Jack, per doz	75 @ 1 00
Do brewing	92½@ —	Hare, per doz	1 00 @ 1 25
Do do choice	96½@ —	Rabbits, large	1 25 @ 1 50
Do do Giltedge	1 00 @ —	Do small	1 00 @ 1 25
Do Chevalier	1 00 @ —	PROVISIONS.	
Do do Gi tedge	1 15 @ —	Cal. bacon, heavy, per lb	12 @ —
Buckwheat	2 25 @ —	Medium	13 @ —
Corn, white	1 15 @ 1 20	Light	14 @ —
Yellow, large	1 05 @ 1 07½	Lard	9½@ 12½
Do small	1 12½@ 1 15	Cal sm'k'd beef	11 @ —
Oats, milling	1 37½@ —	Hams, Cal salt'd	13 @ —
Feed, choice	1 35 @ —	Do Eastern	14 @ —
Do good	1 30 @ —	SEEDS.	
Do fair	1 25 @ —	Alfalfa	10 @ —
Do common	1 17½@ —	Clover, Red	14 @ —
Surprise	1 45 @ —	White	28 @ —
Black Cal	1 10 @ 1 25	Flaxseed	2 25 @ —
Do Oregon	— @ —	Hemp	4½@ —
Gray	1 30 @ —	Mustard, yellow	5½@ 6¾
Rye	1 12½@ 1 17½	Do brown	4 @ —
*Wheat, milling Giltedged	1 35 @ —	WOOL.	
Do choice	1 33½@ —	FALL, 1892.	
Do fair to good	1 32½@ —	S Joaquin, plain	6½@ 10
Shipping, choice	1 33½@ —	Do mountain	10 @ 12
Do good	1 31½@ —	Do lamb	8 @ 10
Do fair	1 28½@ —	Northern Choice	14 @ —
Common	1 26½@ —	Do Defective	11 @ —
Sonora	1 25 @ 1 30	Do Lamb	10 @ 14
HOPS.		HONEY—1892 Crop.	
1892, fair	18 @ —	White comb, 2-lb frame	9½@ 12½
Good	20 @ —	Do do 1-lb frame	11½@ 14½
Choice	21 @ —	White extracted	7½@ —
FLOUR.		Amber do	6½@ —
Extra, city mills	3 90 @ —	Dark do	6½@ —
		Beeswax, lb	23 @ —

Dried Fruits.

The quotations given below are for average prices received by commission merchants for consignments by growers. Something very fancy fetches an advance on the highest quotations, while poor sells slightly below the lowest quotations. Prices, unless otherwise specified are for fruit in sacks; add for 50-lb. boxes ½c per lb. and for 25-lb. boxes ¾ to 1c per lb.

APPLES—1892.		PEARS—1892.	
Sun-dried, ¼'s, prime	3½@ 4	Sun-dried, quarters	— @ 3
Do do choice	4 @ 4½	Do sliced	4 @ 5
Do sliced, prime	4 @ 4½	Evap., slic'd, in b'xes	7 @ 8
Do do choice	4½@ 5	Do ring do	9 @10
Evap. bl., ri'g, 50-lb. bx	7½@ 9	Unp'led, q'rt'd, bl'ch'd	6 @ 7
Fancy, higher.		PLUMS—1892.	
APRICOTS—1892.		Pitted, sun-dried	10 @10½
Do bleached	13½@—	Do evap. boxes, choice	— @ —
Do do fancy	15 @16	Do do do fancy	— @ —
Evap. choice, in boxes	15 @16	Unpitted	4 @ 5
Do fancy, do	15½@17	PRUNES—1892.	
FIGS—1892.		Cal. French, ungraded	7½@ 8
Sun-dried, black	4 @—	Do graded, 60 to 100	8½@ 9
Do white	3½@—	Do do 40 to 60	11 @12
GRAPES—1892.		Fancy sell for more money.	
Sun-dried, stemless	3 @—	RAISINS—1892.	
Do unstemmed	1½@ 2	London Layers, cluster per box	1 90 @2 00
NECTARINES—1892.		Do choicest do	1 50 @1 60
Red, sun-dried	7 @ 8	Do prime pr bx	1 25 @1 40
Do Evap., in boxes	— @—	Loose Muscatels, 2-crown, pr bx	— @1 00
White, sun-dried	9½@11	Do 3-crown do	1 15 @1 25
Do evaporated	— @—	Do do faced	1 30 @1 35
PEACHES—1892.		Unstem'ed Muscatels in sks pr lb.	2½@ 3
Sun-dried, unpeeled	7 @ 7½	Stem'ed 2-crown.	3 @ 3½
Do do prime, bl'ched	9 @10	Stem'ed 3-crown	3½@ 4½
Do do choice, do	11 @—	Se'dl's M'sc't'l sks	4 @ 5
Do do fancy	11½@—	Do do in bxs	— @1 00
Sun-dr., pl'd, bl'ched	@—	Do Sultanas, sks	— @ 7
Do do prime	14 @—	Do do bxs	— @1 50
Do do choice	— @15	Halves, quarters and eighths 25, 50 and 75 cents higher respectively than whole boxes.	
Do do fancy	— @16		
Evap., peeled, in boxes choice	17½@—		
Do do fancy	20 @—		

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WASHINGTON, 817 Pennsylvania Ave.

PATRONS OF HUSBANDRY.

Hon. D. A. Ostrom for Senator.

LODI, Nov. 20, 1892.

TO THE EDITOR:—It appears now without a doubt that the next legislature of this State will be Democratic, and will reform some of the evils of which the producers of this golden State have been laboring under for so many years, particularly the oppression of the monopolies; and while the members of the coming legislature are thinking of some one for United State Senator, I desire to suggest the name of Hon. D. A. Ostrom of Yuba county, as one whom I have known at all times and under all influences and temptations, as being with the people and for the people's interest. I feel that when we have found a man so devoted to the interest of the producers we should put him forward and thereby follow out the Grange doctrine, "the office should seek the man, and not the man the office." Hon. D. A. Ostrom is a true and tried Granger. J. D. HUFFMAN.

The Schoolbook Question.

LODI, Nov. 20, 1892.

TO THE EDITOR:—At the regular meeting of the Pomona Grange of San Joaquin county, held Nov. 17th, the subject of the discontinuance of the present system of schoolbooks in this State was taken up; and it further appearing that there is a ring in this State at this time using every effort to have the present system set aside, they unanimously passed the following:

WHEREAS, Notwithstanding specious and seductive influences to the contrary, it is evident to us that the present system possesses large economic advantages; and

Whereas, We deprecate a return to the system formerly in vogue, with its train of corrupting influences; therefore

Resolved, That we request our State Legislature and the State administration to discountenance all attempts to abolish the present system, and do all in their power for its maintenance, perfection and efficiency.

J. D. HUFFMAN, Secretary.

The Secretary's Column.

By A. T. Dewey, Secretary State Grange of California.

FORM OF PETITION.

A form of blank petition for adoption by subordinate Granges and the following petition for the signatures of brothers and sisters accompany the foregoing appeal:

To the Honorable the Senate and Assembly of the State of California: The undersigned, citizens of your State, believing that in the matter of succession to community property, on the death of either husband or wife, both spouses should have the same rights, respectfully petition your honorable bodies that an Act be passed substantially as follows:

AN ACT to amend the Civil Code in relation to community property, and to the succession thereto in case of the death of either spouse. *The People of the State of California, represented in Senate and Assembly, do enact as follows:* SECTION 1. Section 1401 of the Civil Code is hereby amended to read as follows: SECTION 1401. Upon the death of the husband or wife the entire community property, without administration, belongs to the survivor. SEC. 2. Section 1402 of the Civil Code is is hereby repealed. [Signatures.]

The following petition, which we believe will be popularly indorsed by our subordinate Granges, came from the same committee:

STATE SCHOOL BOOKS.

To the Legislature of California: ——Grange, No. ——, Patrons of Husbandry, of the State of California, has unanimously adopted the following preamble and resolution:

WHEREAS, It has come to the knowledge of this body that interested parties are seeking, through Teachers' Institutes and through paid articles which appear in newspapers under the guise of voluntary contributions, and in other ways, to undermine and break down the present system of schoolbooks in this State; and

Whereas, We deprecate a return to the system formerly in vogue, with its train of corrupting influences; and

Whereas, Notwithstanding specious and seductive influences to the contrary, it is evident to us that the present system possesses large economic advantages; and

Whereas, We have confidence in the integrity and ability of the State Board of Education and in the administration of the State Printing Office; therefore,

Resolved, That we request our State Legislature and our State administration to discountenance all attempts to abolish the present system, and to do all in their power for its maintenance, perfection and efficiency. By order of the Grange. Very respectfully, [To be signed by W. M. and Sec'y with seal.]

We hope each Grange will give the above-mentioned matters full discussion and consideration. As to donating money for building a "Temple," every Patron should act for himself or herself, and contribute according to their own minds and means. Those not able or moved to donate should not discourage those who are able and willing to support so patriotic an enterprise.

NATIONAL GRANGE.

The 26th Annual Session of the National Grange opened at Concord, N. H., on Wednesday of last week. By Associated Press dispatches we learn that Worthy Master Brigham expressed some plain views on the money and other questions which we shall be able to furnish later, after having time to hear from our worthy California representatives, Bro. and Sister Davis.

Bro. Brigham is reported as saying that the financial condition of the Grange was good and the reports from the State Granges show increasing numerical strength. The speaker outlined the benefits accruing to the farmer from the organization and advocated renewed efforts to secure the early passage of the antioption bill. He said: "All that our Order will ask of the new administration is that the same consideration given to other interests be accorded agriculture." The speaker deprecated at this time the movement to induce the Government to spend large sums in the irrigation of the dry lands of the West, and passed on to lengthy discussion of the financial question, advocating honest money.

STATE GRANGE REPORT AND RESOLUTION.

The following report on the Master's address, by the Legislative Committee was adopted at the late S. G. Session:

In that portion referring to legislation, we fully concur in the suggestion of the W. M. that the chief reason for our failure in some instances to procure legislation sought, is because farmers choose some one not of their their own, or a kindred calling to represent them.

Under the head of National Grange, he speaks feelingly and truthfully of the important work done by that body in sustaining and upholding the dignity and influence of the Order; and of the preparations made and to be made in the establishing headquarters for our Order at the World's Fair at Chicago in 1893.

In the matter of Free Rural Mail Delivery, your committee fully concurs in the sentiments of the W. M., and believes if an earnest effort would be made on the part of members of this Order in conjunction with the known endeavors of the P. M. General in this direction, we can secure through congressional action at the next session of that body, authority for the undertaking of at least a partial system of this kind; looking for its general adoption ultimately.

The following by I. C. Steele was also adopted.

Resolved: That the Legislative Committee of this State Grange prepare a memorial to be presented in both Houses of the coming Legislature for the purpose of memorializing Congress to remove the present duty on grain bags, that they may be admitted free.

GRANGE ANNIVERSARY.—So far, we learn of only three or four Granges that have announced their determination to commemorate the birthday of the P. of H. We trust, however, there are many that will have a joyous gathering Saturday, Dec. 3d, the anniversary falling on Sunday this year.

TEMESCAL GRANGE was visited last Saturday by our able Sisters C. E. Kinney and S. J. Cross. The Grange voted to have a "basket lunch" on Saturday, Dec. 3d. Exercises appropriate to the birthday of the Order will be held, opening at 10 A. M. All Patrons are invited.

TULARE GRANGE requests the attendance of some State officer or lecturer, Dec. 3d, when the Patrons of Tulare and their friends will no doubt have a good old-fashioned anniversary celebration. We hope to announce the speakers in our next issue.

A JOINT INVITATION.—It should be understood that Two Rock and Petaluma Granges together invite the State Grange to hold its next annual meeting in Petaluma.

SHROPSHIRES FOR SALE.

30 to 40 Thoroughbred and High-Grade Shropshire Rams Ready for Service.

This stock is the Best in the State, having been selected from the famous flock of the late Andrew Smith, of Redwood City

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LAST MONTH

THE JUDSON FRUIT COMPANY

Solicited consignments from the Fruit and Produce growers of California. The Consignments Came, and we believe that shippers are satisfied. It is our aim to handle all goods placed in our hands in such a manner as to secure the confidence of consignors.

Packing for long distance shipping a specialty.

Good Storage. Good Local Trade.

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SMITH'S CASH STORE

414-416-418 Front Street, San Francsico.

Everybody said, "How pretty, how wide, how suitable, *how cheap!*" There were
Bright red Bedfords, in black polka dot and pretty figure; 30 in.; worth 20c.; cost only 8c.
Cream ground Mandarins, 1 yard wide, large figure; for linings; worth 15c.; cost 8c.
Springtide Buntings, 30 colors; 34 in. wide or more; so nice; worth 10c.....cost 7c.
Common Ecru Cheese-cloth; some use it; not recommended; 36 in .....4, 5c.
Heavy Twilled Calico, bright colors; large figure; 20 kinds; called Cretonne .....8c.
Other quilting styles of Calico; large figure; various qualities.....5, 6, 7c.
Pacific Challis, all light or medium; standard width; worth 8c.. .....now 3½c.
Common Prints, such as you get anywhere; not wide or very good .....4½, 5c.
Various articles for quilting in Cashmere finish; wide and narrow.....5, 6, 8, 10c.
Cotton Bats 20 per cent. cheaper than anywhere; 1 lb. rolls; 3 grades.....12½, 15, 20c.
Common colored Wool (shoddy), for common quilts or lounges.....6¼c.
Tieyarn, Cotton; all colors; 5c. ball Zephyr; odd colors.....30 hanks for $1.00
Other yarns for tyeing quilts and for knitting things; all kinds and prices. See list.

And the things they had to Eat came from SMITH'S, too.

When you decide to start housekeeping, after "seeing Nellie home," remember the CHEAPEST place in the world to get things is SMITH'S.

STATE FAIR, 1892.

The following San Francisco Firms ana Individuals Received the Highest Awards of the State Agricultural Society at the late State Fair.

BAKER & HAMILTON,

BEST DISPLAY OF AGRICULTURAL MACHINERY, CALIFORNIA MANUFACTURE, GOODS MANUFACTURED BY BENICIA AGRICULTURAL WORKS.

BUFFALO-PITTS THRESHING MACHINE.
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SAMPLES OF PAINT, CAL. MANUFACTURE (P. & B.).

ALAMEDA STEEL WIND MILL.

10, 12 and 14 ft. Cheaper than any First-Class Mill in the market.

Every One Guaranteed.

No bearings, no springs, no wheels to get out of order. The simplest mill in the world.

10-foot.....$40 00
12-foot..... 50 00
14-foot..... 60 00

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ANGORA GOATS FOR SALE.

A number of pure-bred Angora Goats in lots to suit. This is the stock of goats formerly owned by Julius Weyand and will be sold cheap for cash. Address

ERNEST WEYAND, Colusa, Cal.

WELL MACH'Y All Kinds, Water, Gas, Oil, Mining, Ditching, Pumping, Wind and Steam; Heating Boilers, &c. Will pay you to send 25c. for Encyclopedia, of 1500 Engravings. The American Well Works, Aurora, Ill. also, Chicago, Ill.; Dallas, Tex.; Sydney, N. S. W.

APIARIAN SUPPLIES. Golden Italian Queens. Tested, $2.00 each; untested, $1.00 each. L. Hives, $1.90 each. Root's V groove sections, $5.00 per 1000. Dadant's comb foundation, 50c and 65c a pound. Smokers, $1.00 each. Globe veils, $1.00 each, etc. WM. STYAN & SON, San Mateo, Cal.

Seeds, Plants, Etc.

PACIFIC NURSERIES,

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A Large and Extra Choice Stock of

Fruit, Shade and Evergreen Trees and Flowering Shrubs.

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The Largest and Best Stock of Camellias, Azaleas and Rhododendrons, consisting of the Best European Sorts.

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The Earliest Yellow Freestone Known.

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The Best Peach Known for Early Shipment East.

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A. T. FOSTER, Dixon,
Or, I. H. THOMAS & SON, Visalia.

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On Myrobolan Stocks, at Low Rates.

Also, a general assortment of Apple, Pear, Peach, Nectarine, Plum, Cherry, Quince, etc., grown in sandy loam, without irrigation, which gives a fine proportion of roots. I offer no trees but what are grown in my own grounds and known to be true to label and free from scale bugs. Address: W. H. PEPPER, Petaluma, Cal.

Owing to age and poor health, I will sell my place and business at a bargain. Place consists of 250 acres of land, good buildings, 50 acres in orchard, and a large Nursery Stock, together with horses, wagons and implements, complete, for carrying on the business. A good opportunity for enterprising men with capital to step into a good-paying business. For further particulars address, as above.

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Importers and Growers.

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Standard Fruits, Shade Trees, Shrubs and Ornamentals,

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CHERRIES,	PEARS,
PRUNES,	PEACHES,

No Irrigation. Free from Pests.

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Apple, Pear, Plum, Cherry, Peach, Apricot, Nectarine, Quince, Grape Vines and Small Fruits.

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The New Yellow Freestone Peach.

FIRST AND BEST OF EARLY YELLOW PEACHES.

RIPENS IMMEDIATELY AFTER THE ALEXANDER (White Cling), which is the earliest peach in market.

Fruit is round, of medium size, VERY HIGHLY COLORED, flesh firm and sweet.

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A limited number of yearling trees for sale this season. Apply early before stock is exhausted.

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Tulare County customers can obtain stock from above Company at Farmersville, Tulare Co.

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VARIETIES FOR PICKLING—Regalis, Grossala, Hispania, Santa Catarina, St. Agostino, Ascolana (White Olive of Ascoli).

PRICE, 50 Cts. Each, $40 per 100, $350 per $1000; Ascolana, $1 each.

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California Paper-Shell, Nonpareil, Ne Plus Ultra and I. X. L.

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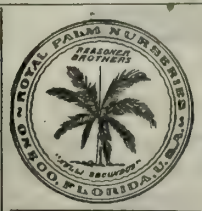

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for Nurserymen, dealers, or commercial planters, in car loads or box lots.

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Apple Grafts at $3.50 per thousand.
Prune Grafts (on Mariana Stocks) at $9 per m.
Pear Grafts at $8.00 per m.
All first class and best of material used, f. o. b.

APPLE SEEDLINGS.

No. 1, graded 3-16th, and all up at $4.10 per m; and Pear Stocks, same grade, at $7.50 per m, f.o.b. Free of disease. We are strictly wholesalers, and grow nothing but the above stock. Our trade has grown to immense proportions (second to none) through the merits of our goods.

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I have a fine lot of APPLE TREES for sale.

I will guarantee every tree true to label and free from insect pests.

Correspondence solicited.

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OF SANTA CLARA COUNTY.

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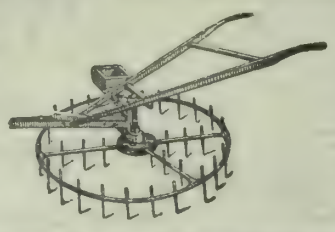
OFFICE AND FACTORY, 33 FOUNTAIN STREET. SAN JOSE, CAL.

Jackson's Rotary Vineyard or Orchard Harrow.

PRICE (five feet diameter), $25.

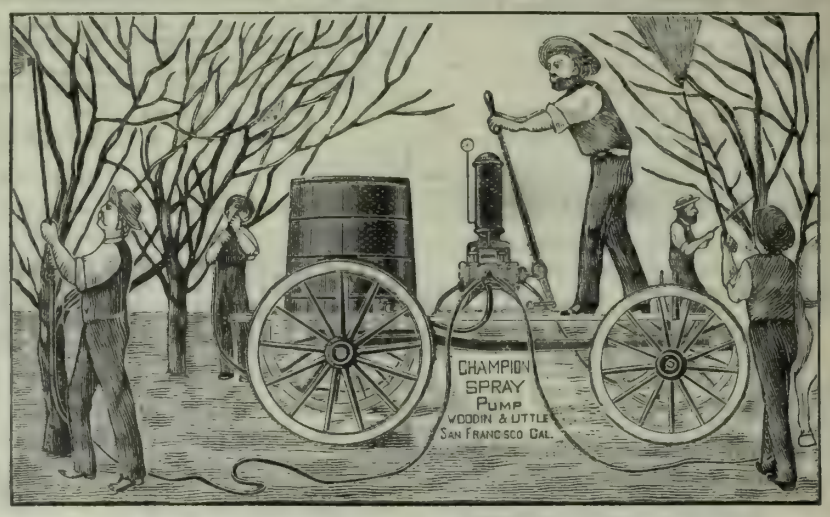
It has half-inch steel teeth, and is made to rotate either way by simply changing the cast-iron weight from one side to the other. The Harrow weighs 170 lbs., and can be taken down and packed closely for shipment.



The Jackson Vineyard Harrow rotates either way, at the will of the driver, and by driving the slow side next to the vine or tree there is no danger of hurting it, as the Harrow will roll gently around the tree or vine.

THE JACKSON VINEYARD HARROW was designed especially for vineyards and orchards, where very thorough and careful work is required. It was introduced to the orchardists in 1881, and perfected during that season. It is made of gas-pipe, bent round like a wheel, and made perfectly smooth on the outer rim, and presents no sharp corners to the t ees or vines to injure them as it revolves. It is provided with handles, so the operator can hold it to or from the row. Every farmer should have one for his garden, and to level any uneven land, or fill up dead furrows. Every vineyardist or orchard owner should have a sufficient number to go over the whole ground in a short time. When the surface is just in proper condition, one day's work is worth a week's out of season. The Jackson Rotary Harrow is a perfect pulverizer, leveler, clod-crusher and weed-killer. It leaves the weeds on top of the ground—thoroughly shaken—to die.

BYRON JACKSON, 625 Sixth St., San Francisco, Cal.



CHAMPION SPRAY PUMP.

The above cut illustrates our new spraying pump, the "Champion," and its adaptability to the work for which it has been especially designed.

After ten years experience in the spraying pump business, and the wants of orchardists therein, we have built this pump, as being best suited to their requirements. Before putting it on the market we submitted the model to several prominent fruit growers, and as the design met with their unqualified approval also, we have no hesitation in declaring it to be the best spray pump ever made, and justly entitled to be named "Champion."

As will be seen from the illustration, the pump is very compact and strong. It is perfectly double-acting and has a brass-lined cylinder. The motion of the piston is horizontal. The handle is so arranged that the leverage is very powerful, and the movement is easy and natural. The air chamber is unusually large, admitting of the continuous and even discharge necessary for good and thorough spraying.

The valves are metal and have metal seats. They all lie directly beneath the air chamber and are readily exposed on loosening four bolts, and without touching the cylinder.

The pump has a double suction and a double discharge, one each on either side. The above cut shows the pump in operation with four lines of discharge hose. It can be readily arranged for a less number if desired. With this pump one man can easily keep four men busy spraying, as well as attend to the team and stirring of the liquid We believe the pumps supply a long felt want, as, for service, convenience, easiness of operation and durability, they are far superior to any other in use.

Our BAMBOO EXTENSION is an admirable invention. The operator of the pump, by the use of this extension, can get to all parts of the tree while on the ground, also saving himself from getting his hands and face burnt from the solution. As a rule, the man who does the driving of the team does the pumping, and the party who has charge of the Bamboo Extension does the spraying. This is the very best pump made, without any exception.

NOTICE.

We also carry a full line of other Spray Pumps—**GOULDS, STAR, EUREKA**; also full line of Spray Nozzles, Spray Hose and everything connected wi h the Spray Pump Outfits
SEND FOR SPE IAL CATALOGUE—Mailed Free.

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ALL SIZES, FOR GAS, STEAM AND WATER.

— WE MANUFACTURE —

SHEET IRON AND STEEL PIPE,

ALL SIZES.

For Water Supply, Mining, Irrigating Purposes, Stock Ranches, Etc.

Made in Lengths Desired from 16 to 30 feet.

The Cut shows a Section of Three Joints

DOUBLE RIVETED SHEET IRON PIPE.

In the manufacture of this Pipe, we use only a **high grade** o annealed Charcoal Iron of great tensile strength.
The weight or thickness of metal used, is graded according to service required, and pressure to which the Pipe will be subjected.

FOR ALL UNDERGROUND PURPOSES, we immerse the Pipe in a bath containing a special mixture of **ASPHALTUM, PITCH and PETROLEUM, at a Temperature of 300° Farenheit.** It thus receives a thorough coating, both inside and outside, rendering it impervious to the alkalies of the earth, rust, etc., and is practically indestructible.

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HAY BARNS, DRY HOUSES, STABLES, ETC.

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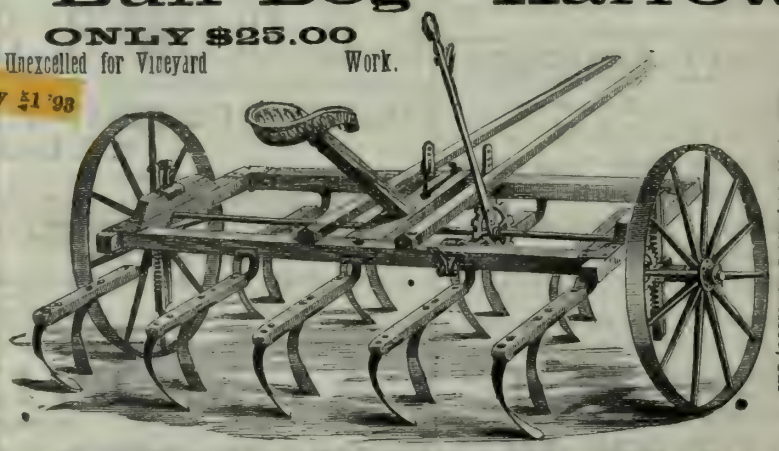
SAN FRANCISCO—SAN JOSE—LOS ANGELES.

"Bull Dog" Harrows.

ONLY $25.00

Unexcelled for Vineyard Work.



BYRON JACKSON, 625 Sixth St., San Francisco, Cal

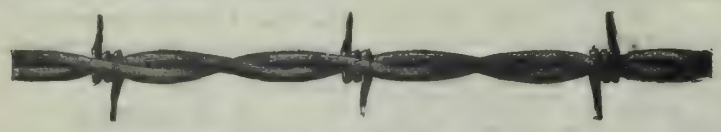
NO. 3 "BULL DOG" 6-FOOT RIDING HARROW—$25.00

Instead of a single tooth, drawing straight through the ground, the teeth are attached in pairs (which have a spread of seven inches) to a short beam. Every tooth has a quarter turn (to the right or left respectively), thus presenting a cutting edge to the ground, and giving to each the position and appearance of a moldboard of a plow, or the shovel to a cultivator. This form of tooth, together with the relative positions assumed by the teeth to each other, gives to them the power of cutting and pulverizing tough soils, and hard, baked ground, which is possessed by no other form of tooth yet invented. By this peculiar disposition of the teeth, they have the advantage also, that one acts as a brace or landside to the other, and so prevents their clogging, which is a serious fault existing in all spring tooth harrows whose teeth are made of one long, continuous spring. In the "BULL DOG" HARROWS the short beam which holds each pair of twisted teeth is attached by a stiff spring to the main framework of the tool, Thus these implements have the combined elasticity which exists in the teeth themselves, and in the spring which attaches the short beam to the cultivator frame. Hence the harrow retains all the vibration necessary for the successful working and cleaning of the machine, whilst it is also stiff enough to be held down to its work in the most obstinate soils without difficulty.

SHAPE OF TEETH.—As the teeth present to the soil a shear or cutting edge, they are enabled to do the most thorough work in hard ground, and, in fact, the peculiar construction all through of the "Bull Dog" Harrows adapts them for successful working in soils where no other tools of the kind can be used.

BUY THE GENUINE

GLIDDEN STEEL BARBED WIRE.



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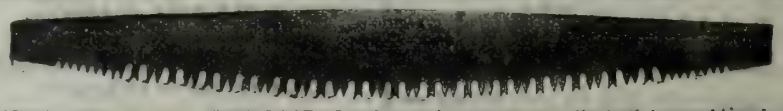
ASK YOUR DEALER FOR DISSTON'S "HUMBOLDT" CROSS-CUT SAW.



MADE OF BEST QUALITY CRUCIBLE STEEL and ground even gauge on the teeth from end to end. Will retain the set longer and do more work without filing than any other saws. Send for "Hand Book of Saws," mailed free. **HENRY DISSTON & SONS, Inc., Philadelphia, Pa.**

DEWEY & CO. {220 MARKET ST., S. F. Elevator, 12 Front} PATENT AGENTS.

PACIFIC RURAL PRESS

Vol. XLIV. No. 23. SAN FRANCISCO, SATURDAY, DECEMBER 3, 1892. THE DEWEY PUBLISHING CO Office, 220 Market St.

Indians of the North.

Hop-picking on Puget Sound, the season for which has recently closed, attracts from Alaska, British Columbia and many parts of Washington large numbers of Indians, who migrate to the Sound for the purpose of spending a month or more in the fields, thus earning considerable sums of money. The journey from the north is made on the ocean in canoes which travel in fleets and which contain Indian families and often whole villages and tribes, with their entire camp, clothing and cooking outfits and belongings. Arriving at Seattle about September 1st, they leave their canoes in the harbor and then go out to the Puyallup, White River and other valleys, and remain during the hop-picking season. Men, women and children engage in picking, and the sums realized to the families are often quite respectable.

When the season is at an end, the Indians owning horses have a great "meet" to test the comparative merits of their animals; and a very unique and interesting gathering it is. Large sums of money are often wagered on the result, and often an Indian who has worked through the hop season faithfully goes home with pockets as empty as when he came. One of these meets is represented in the engraving in to-day's RURAL PRESS, used by permission of the *Overland Monthly*.

Perhaps the most celebrated Indian on Puget Sound—one who, by the way, does not descend to the "menial" pursuit of hop-picking, because of her royal ancestry—is Princess Angeline, of Seattle. Angeline is daughter of old Chief Seattle, for whom the city is named, and she is an object of continued consideration and even admiration, by the people of Seattle. It is said that once on a time Angeline, by a perilous night journey, warned the village of Seattle, then a frontier settlement, of a threatened Indian invasion, thereby winning their everlasting gratitude and esteem. To tell the truth, Angeline, in her personal appearance, is a very commonplace squaw. She is a familiar object about Seattle, and can often be seen seated in doorways or wandering barefooted along the streets in quest of some friendly person who will give her food and raiment. The people of Seattle, however, invest Angeline with a halo of romance, and, if she would allow them, would provide her a better manner of living and a decent habitation. She declines these, however, but makes reprisals on her white friends for whatever is absolutely necessary to keep body and soul together. The engraving of Angeline in this week's RURAL PRESS is from the *Overland Monthly*.

THE DAUGHTER OF SEATTLE.

INDIANS HORSE RACING AFTER HOP-PICKING.

THE California Starch Company was organized at Petaluma last week. The capital stock is $200,000, divided into 2000 shares at $100 a share. The directors outside of Petaluma are: John M. Streining, Edwin C. Austin, John Burkart, Henry J. Summer, and Hayes and W. J. Adams, all of San Francisco. The proposed factory will be of inestimable value to the producers around Petaluma. Potatoes are grown in great abundance in Sonoma county, and a ready market is assured the farmers. After the potatoes have passed through the factory a pulp remains which is good for cattle food.

SAN JOAQUIN VALLEY CITRUS FAIR.—The horticultural society of the district including Fresno, Tulare and Kern met at Porterville and decided to give a citrus fair at that place on December 29th. Porterville is the center of the citrus belt in the upper San Joaquin, from the fact that the people in that locality have paid greater attention to orange culture than those at other points along the foothills of the Sierra Nevadas.

THE people of Vallejo, by more than a two-thirds vote, have decided to issue bonds to the sum of $250,000 to build new waterworks.

Fruit vs. Wheat.

We increase our pages to make room for notable essays which we are glad to send to our readers in the midst of a great storm, for dripping skies and sodden soil put the agriculturist into the finest humor for careful and earnest reading. Draw up to the warm fire and beneath the bright lamp, and profit by the many important matters which our pages this week contain.

We would call special attention to the essay prepared for the San Jose Convention by Gen. N. P. Chipman of Red Bluff. Gen. Chipman is most painstaking and diligent in his studies of California industrial affairs, wise in his deductions, and singularly skillful in presenting them. Four years ago he presented a careful paper upon the relative importance of wheat and fruit-growing in the development of our State, and his later essay on the same subject is in the nature of a sober, second thought—all the more forcible because it affirms the conclusions at first attained. We do not desire to abstract the essay; we prefer to present it in its entirety, so that its facts and its logic may be apparent to all. The conclusion from all the data presented is irresistible—not that we should stop growing wheat, but that all lands which can be successfully used for fruit should be thus devoted, wisely and upon a practical basis, and there would follow a subdivision of lands and increase of population which are the secrets of our future growth and development as a State. The profit in fruit plantations wisely made and properly maintained is perhaps the most clearly demonstrated fact in California industry.

We are also glad to present in the same issue of the RURAL the paper by James E. Gordon on the prune industry. It is conservative in tone, and may possibly be too narrow in its sketch of regions adapted to the special fruit considered, but its influence will be excellent in restraining people from rushing into fruit investments upon speculative considerations and without surety that the investment will be properly handled. General Chipman proceeds of course upon the fair basis that fruit-growing must be well done to merit consideration at all. Mr. Gordon shows how many ways can be followed to reach failure or at least to endanger success. We hardly see how the reader can peruse these two papers without learning many things which will show him how to make money and how to avoid losing money. We are gratified at being able to present in one issue of the RURAL so many important practical considerations.

NEW ORANGES. — Oranges are in from Oroville, and the southern crop is just at hand. The first car left Riverside Nov. 27, which they claim was the earliest shipping date in the State. That point may have to be decided by comparisons. The Riverside crop is said to be ripening rapidly.

ANTHRAX IN LOS ANGELES COUNTY.—It is telegraphed from Los Angeles that Dr. Morrison has reported to the Supervisors that anthrax had appeared in cattle on a ranch on the Verdugo road owned by Mr. Nelson. The Supervisors directed him to quarantine the place.

PACIFIC RURAL PRESS.

By The Dewey Publishing Co.

Office, 220 Market St.; Elevator, 12 Front St., San Francisco., Cal.

Annual Subscription Rate Three Dollars a year. While this notice appears, all subscribers paying $3 in advance will receive 15 months' (one year and 13 weeks) credit. For $2 in advance, 10 months. For $1 in advance, five months. Trial subscriptions for three months, paid in advance, each 60 cents.

ADVERTISING RATES.

	1 Week.	1 Month.	3 Months.	1 Year.
Per Line (agate)	$ .25	$ .50	$ 1.20	$ 4.00
Half inch (1 square	1.00	2.50	6.50	22.00
One inch	1.50	5.00	13.00	42.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type, or in particular parts of the paper, at special rates. Four insertions are rated in a month.

Registered at S. F. Post Office as second-class mail matter.

ALFRED HOLMAN.....General Manager

San Francisco, December 3, 1892.

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BUSINESS ANNOUNCEMENTS.

[NEW THIS ISSUE.]

Plows—Oliver Chilled Plow Works.
Pruning Shears—Baker & Hamilton.
Pulverizers—Truman, Hooker & Co.
Fruit Trees—Felix Gillet, Nevada City.
Rattan Chairs—California Rattan Co.
Watches, Jewelry, Etc.—Pacific Coast Home Supply Association.
Fruit Trees, Seeds, Etc.—Thos. Meherin.
Fruit Trees—Oroville Citrus Association, Oroville.
Situation Wanted—A. G.
Oil Picture—Demorest Family Magazine, New Yo k.
Barb Wire—Washburn & Moen Manufacturing Co.
Olives—Frank Kunz, Sacramento.

☞ *See Advertising Columns.*

The Week.

The rain has washed every other topic from the public mind. Never perhaps has there swept over California so great a storm so early in the season: in fact if all the injuries and all the inches of water accomplished by the storm which, as we write on Wednesday evening, is still in high feather, are collected at its close, it may be that California never had so strong a conflict of the elements. San Francisco and vicinity lost several frame houses, and parts of houses beyond number. Telegraph lines have been floored, wharves on the Alameda side washed out and blown out, and confusion in general has resulted. Travel and transportation have been somewhat interfered with. In spite of all these the storm has in no sense been a disaster, and the most disgruntled find time to declare that the rain is a good thing for the country, and the forecast of a very promising producing season.

The whole State has been covered by the storm, and even in the arid regions there have been flowing streams and washed out roadways.

This rain, as we promised last week, will prove a wonder awakener of activity and business. It comes early enough to give a long working season, and it is heavy enough to prevent a holiday drouth. On the whole it is very good.

California Chrysanthemums.

There is every reason why we should succeed in bringing out notable new chrysanthemums. Our climate certainly favors seeding of the plant and the strength of the parent should foreshadow excellent offspring. This theoretical forecast of the situation has also been affirmed by instances of California seedlings which have won local fame. How far such California varieties might advance in the face of the storms of high-class novelties at the East and abroad is a question of which the fainthearted have usually taken the negative. There is perhaps no flower of which so many new varieties are pressing for recognition and in which so many distant growers are intimately interested, and it might seem that there was little room for California work. But all such apprehensions disappear in the face of facts and the position secured by California seedlings at the show in New York city last month, is most encouraging. In its report of this Madison avenue display, the new Chicago semimonthly entitled *Gardening*, introduces the decision of one of the best-known New York growers in these words: "My greatest surprise this year was the California seedlings. I tried only a few of them this year, for to tell you the the truth, in face of what we have in the East here I did not think we could get much, if anything better, or as good, from California. But see what I've got! Aren't they beauties? Rest assured I will send for every seedling they send out in California this season."

These seedlings are so notable that *Gardening* gives engravings of eight of them with the following names and descriptions:

Mrs. Senator Hearst—Pure white. A full, flowing flower; petals spreading, a little twisted and irregular, and of different shapes and sizes, many thread-like ones being intermixed among the large ribbons.

Dr. Callandreau—Creamy yellow shading to white; petals very large, broad, and inclined to incurve. A very beautiful blossom.

Mount Whitney—An exceedingly large, pure white flower, quilled, and of somewhat spreading, flat disposition. Splendid.

Golden Gate—Golden bronze. A very large, bold flower, with spreading petals; habit, robust; stem, stiff; foliage, fine.

Harvest Moon—Clear, bright yellow; petals flowing and somewhat twisted; foliage clean and plentiful. A very beautiful variety.

C. Cruger—A handsome, well-headed flower; color, a pleasing purplish, and yellowish silvery reverse.

Carmen Byron—Good sized flowers; brilliant red, reverse bright yellow; petals broad and incurved. A strikingly beautiful flower, but it shows a conspicuous eye, and, altogether, is considered as the least worthy of the set.

Lilian Cross—Clear yellow; petals broad and reflexed to intertwisted. A pretty variety.

We have seen some of these, and certainly they are deserving of the distinction they have won and the credit they bring to the State. We wish we could give the originator in all cases. Perhaps some reader will supply this lack, so that individual credit may be placed where it belongs.

At the last fair of the California Floral Society in this city there were other notable seedlings exhibited. There was a fine group from Santa Cruz, and another very interesting exhibit of volunteer seedlings from a garden near Haywards, in which the offspring was shown in connection with the bloom from the parent plants. The chrysanthemum is the great floral fancy at present, and evidently California is in the swim.

The Raisins Will Wait.

The cooperative organization of raisin producers and dealers is now called upon to put forth an act which clearly demonstrates its right to exist. The shipments of raisins thus far made are more than the Eastern market can immediately handle. Without concerted action among those in the local consumption and trade, the old story would have been repeated, shipments would have continued, prices would have been forced down by Eastern speculators and the goods they thus slaughtered would have been held by them for subsequent sales at large profits. This is just the trap the California producer fell into last year, and nothing but the organization referred to stands in the way of another walk into the same snare.

Last week the raisin-growers met at Fresno and adopted the following declaration of fact and purpose:

First—That the packers and producers of raisins in the State of California be notified by the secretary of this association that the stock of raisins now on hand in the eastern markets is sufficient to supply the consumptive demand for the next six weeks; this meeting, consisting of the executive committee of the association and the representative packers of the State for themselves, agree, and advise absent packers to agree, that no further consignments of raisins be made to the East until after the new year.

Second—The better grades of raisins are about all shipped out of the State; there are now no clusters of London layers here to ship. This, together with the large amount of raisin grapes which have this year been sold green to the wineries, and the shortage of the crop, will tend to make a good active demand later; the crop, when all shipped, will be found to be not over three-fourths of that of last year's shipment.

Third—This meeting is of opinion that such action as advised will result in much higher prices, particularly as there is no more than enough raisins to supply the demand, and can all be sold at the combination price, if marked with due regard to the supply and demand.

The above policy was unanimously agreed to by the San Joaquin valley producers who were present, and adherence was also given by the Riverside organization in writing. It is a particularly encouraging instance of what producers can do in their own behalf by acting together toward honorable commercial ends.

Added to this self-evident proposition comes the testimony of those in the trade that similar influence is discernible from their point of view. A leading dealer at the East is reported to have said that had it not been for the action of Californians in the raisin interest "there would have been positively no market for raisins this season. The same tactics would have been observed that were observed last year, when raisins could not be sold at any price." Another dealer claims that the "action of the association had increased the price of raisins on the 200 carloads that he had already sold, at certainly not less than one cent a pound, and probably one and one-half."

The next movement which is already under way is to place all brokers under $20,000 bonds not to undersell the minimum prices fixed by the association, and no goods will be furnished to brokers who do not bind themselves to uphold the work of the producers and packers. This accomplishment, within six months of organizatisn, is, as we have said, peculiarly significant.

From an Independent Standpoint.

It is a shameful fact that up to the present time, (we write on Tuesday, Nov. 29th), the results of the voting in this State on the 8th inst. are not yet definitely ascertained. Through one pretext or another, the returns are delayed, and we are apparently no nearer to accurate knowledge than we were two weeks ago. In last week's issue we blundered in reporting that Harrison had carried California, whereas it is now demonstrated that Cleveland carries the State, although by a very narrow plurality,—probably not more than four hundred. Generally speaking, the results of the election are as we have heretofore reported them. The Legislature will be Democratic by a working majority, and will unquestionably choose a Democrat to succeed Mr. Felton in the Senate. The three leading aspirants for Mr. Felton's place are W. W. Foote, Stephen M. White and Jeremiah Lynch. Mr. Foote is a lawyer of this city, engaged mainly in probote and criminal practice. He is a public speaker of some ability, and has done a good deal of stumping in this State from time to time. Several years ago he was a member of the Board of Railroad Commissioners, and made a record of being one member of that Commission who could not be controlled by the railroad corporations. His standing in this connection will be his principal claim for the Senate. Mr. Foote was opposed to the nomination of Cleveland and was in favor of Hill, but went to the Democratic National Convention under instructions for Cleveland. After the convention he visited Cleveland in New York, and it is understood that he made his peace satisfactorily. Mr. White has a wide reputation as an orator, and was selected by his party during the recent campaign to represent it in joint debate with M. M. Estee. He is a resident of Southern California, but is familiar with the State from one end to the other. The local politicians are not generally favorable to his candidacy, because they fear a large share of the Federal patronage will go south instead of remaining in San Francisco. Mr. White has been employed as attorney by the Southern Pacific on occasion, but in other respects has an anti-monopoly record. He is perhaps the best known of the three candidates named. Jeremiah Lynch lives in San Francisco, and his title to political preferment is based chiefly upon excellent work done as foreman of the San Francisco Grand Jury. He is a writer of ability and a man of large means.

The Rural observes with satisfaction that the non-partisan movement in San Francisco, which resulted in the election of the mayor and of a fair proportion of the other city officials, is not to be abandoned. Its leaders, the integrity of whose motives is beyond question, announce their purpose to maintain the organization and to carry on the fight next year on lines substantially similar to those of the campaign just past. They recognize the fact that the purification of San Francisco politics is an enterprise not be accomplished by a single successful fight, and they propose to stay by it until there shall be aroused here a moral sentiment sufficiently courageous and active to demand respectable nominations and to secure respectable elections. A similar movement is on foot in Oakland. A non-partisan league, whose purpose is the political regeneration of Alameda county, has been organized and plans are being laid already for the next general election. It is only by this kind of vigilance that good local government can be secured or maintained. There are probably few other counties in the State where change is so much needed as in the counties of San Francisco and Alameda, but it would certainly do no harm and it might do a great deal of good in every county, for those who are interested in good government to come together into permanent organization. Too long we have permitted irrelevant opinions as to national policies to control political action in home affairs. It is a custom utterly absurd, and the sooner it passes away and is succeeded by the better custom of voting independently of party for the best man, the better it will be for the country, both materially and morally.

One result of the national election which is alike satisfactory to Democrats and Republicans of the better sort, is the elimination of New York from the great national chess-board. Heretofore, that State has been indispensable to party succes, and there, naturally, party effort has been concentrated. Concentration of effort in New York means simply a contest between the parties for the purchasable and largely foreign vote of New York city. When a few thousand voters in a single city hold the key to the situation, and when they are clearly awaiting the highest bidder, the temptation is certainly very great, and neither party for the past fifteen years has been able entirely to resist it. The methods by which both Republicans and Democrats have sought to gain the support of the corrupt and foreign element of New York city is a chapter in our politics so infamous that we trust it will never

be written. But in the last election, New York happily cut no more figure than New Jersey. The successful candidate could have gotten along quite as well without the one State as without the other. And what is true of New York is quite as true of that other great, and heretofore doubtful State, Indiana, which has shared with New York in the infamies of extreme partisan politics. Hereafter, neither of them is likely to be deemed so necessary to success as to prompt such outrageous and indecent methods as have in the past characterized their campaigns.

It does not appear to be generally known that nearly one-half of the $400,000,000 annually expended by the United States Government goes to pay pensions. This item of expenditure grew from one hundred and seven millions in 1890 to one hundred and twenty-four millions in 1891, to about one hundred and fifty millions is 1892, promises to exceed one hundred and eighty millions for the fiscal year ending June, 1893, and will reach the amount of two hundred millions in the year ending June, 1894. Nobody familiar with the methods by which pensions have been secured can doubt for one moment that a very large proportion of the pensioners of the country have no real title to Government aid. We believe that a careful investigation of the pension list would result in cutting off from ten to twenty per cent of the whole number of pensioners and in an annual saving of from twenty to fifty millions of dollars to the Government. The dominant political party which will soon be in charge of the Government owes it to the country to redeem its pledge of looking into this business and reducing the pension list to something like a legitimate and respectable basis. We do not question either the policy or the justice of reasonable aid to those who fought to preserve the Government, but nobody will claim that there is any reason or justice in taxing the people of the United States annually four dollars per capita to give pensions to a vast multitude of people, of whom not one in five stands actually in need. It is a fact unquestionable that our pension rolls contain the names of a vast number of men who are quite able to pay their way in the world. Under the pension laws, a rich man can easily establish a technical right to a pension for wounds in battle or inability through age or infirmity, but, viewed from the standpoint of a gentleman or patriot, it is neither proper nor dignified for a man of independent means to accept a pension from the Government. The same felling of honor that would prompt a well-to-do gentleman to refuse money or other gifts for saving a fellow creature from drowning ought to prompt a veteran who is not poor to refuse a money pension from the Government in reward for patriotic services. There are many kinds of service that cannot be paid for; there are some favors that no money can buy and for which no money can be proffered or accepted without loss of self-respect. The *Post-Intelligencer* of Seattle, speaking of this subject, finely says:

> Patriotism in purple and fine linen, that is never weary of holding out its hand for the pauper's penny and the obolus of Belisarius, blind and a beggar at our gates, is a kind of patriotism that resembles the virtue of the small boy who demands a seed cake at bedtime because he has neither told a lie or sworn an oath the entire day. A true soldier does not desire to receive from the Government a pension to which he cannot show a moral title of poverty or disability that compels dependency. Only those soldiers who are incapacitated from earning a livelihood deserve to be pensioned, and it ought to be a social stigma upon a rich veteran to accept a pension when he is amply able to support himself and his family.

There will be very many to agree with ex-Senator Edmunds who, when asked recently, "What is the most vital question confronting the people of the United States?" answered promptly, "The immigration problem." Among other things, Mr. Edmunds, in discussing the immigration problem said:

> According to the prevailing system, the class of people whom European nations do not require have been shipped over the seas to New York. These aliens do not readily assimilate with American ideas and customs, although, it may be said, they acquire our vices more readily than our virtues. They constitute distinct nationalities, with their own home prejudices, superstitions, personal habits and mode of life, at the same time enjoying all the privileges of American citizenship acquired in a brief period. You and I served our twenty-one years' apprenticeship before we obtained those rights, during which time we were educated to an understanding of the principles of a republican form of government. We should welcome the industrious, honest immigrant, who leaves his home in overcrowded Europe to improve his condition and to become identified with the land of his adoption. A large proportion of the country people of France and Germany would become useful citizens. The urban immigrants are apt to be undesirable. There is no reason why Russia, in her desire to get rid of a certain number of sectarians, should send them to America, where they are undesirable. A change should be made at once, and a large proportion of the class of immigrants who have landed should be denied admission in the future. The salvation of the republic, as it exists, according to the principles of its founders, hinges on a cessation of the abnormal influx of undesirable immigrants:

All of which is gospel truth. If the dominant party has the courage to take up this great question and to apply such regulations as will protect America from the hordes of degraded and ignorant emigrants now flocking to our shores, it will earn the gratitude of the people and do much to establish itself in permanent authority.

If the San Jose *Phœnix* would read the RURAL PRESS more carefully, it would not fall into the blunder of charging it with attempts to "fool the working people" in the matter of the tariff. The RURAL is not blind to the fact that California gains certain advantages through the protective tariff. Nobody with his senses about him can deny or doubt this fact so long as prunes, oranges, wool, raisins and miscellaneous dried fruits—not to mention a hundred other articles of domestic production—are on the tariff list. We have never taken stand as a tariff organ, or any other kind of organ, for that matter, and have never maintained that a protective tariff protects the working people as distinct from the producer. On the contrary, we have pointed out on more than one occasion that a weak point in the protective system is that it gives no protection to the laborer, but allows floods of foreign immigration to pour into our country, to disperse over the land and to compete with and cheapen the price of labor. We had supposed that whoever took sufficient interest in the RURAL PRESS to read it at all, could not fail to be informed of its position on this point.

Among the dwellers in the North Bend, up in the State of Washington, is one R. H. Pickerell, who has a habit of lingering long at the tavern and going home in a besotted condition to make it pleasant for his family. On last Tuesday night he appeared at his own door about midnight, and, being irritated with the peace and quiet which reigned there, proceeded to liven matters up a little. He drove his wife and children out of doors, hurled pieces of furniture, a loaded gun, a lighted lamp, a canary bird and the family cat through the window after them, accompanying this demonstration with maudlin roars. The whole community was aroused, and it took but little time to organize a vigilance committee. A long strong rope was first procured, and about forty of the best people in town took hold of it. They went to Pickerell's house, and, making due apologies for interrupting him in his pleasantries, tied the rope around his neck and dragged him to the swift mountain torrent a few yards distant. Pickerell's natural antipathy to water caused him to make desperate exertions at first and finally to plead for mercy. But the sentence of public opinion was upon him. Into the swirling waters the trembling wretch was hurled, and the current swiftly carried him the full length of the rope. Nearer dead than alive, he was pulled back to shore. The operation was repeated several times, until the prisoner made the most solemn oath ever taken by a drunkard that he would never touch another drop of liquor. That he might not forget this good resolution, he was informed that the next time he cut up any such tantrums he would be tethered in the middle of the stream for a time sufficient to relieve his family of any further annoyance on his account. As we have often stated, the RURAL does not believe in punishments outside of the law, but it lays aside its principles long enough to commend the people of North Bend. We cannot repress the judgment that they have done a monstrous fine thing.

Undoubtedly great pressure will be brought to bear upon Mr. Cleveland in the matter of a special Congressional session. A poll of the members of the next Congress shows a distinct majority favorable to a special session, and the list includes Speaker Crisp, Mr. Springer of Illinois and many other leaders of the party. Mr. Mills has not yet spoken, but it is expected that he will be among those who will strongly urge Mr. Cleveland to call Congress together immediately after his assumption of office. Indeed, it looks as if Mr. Cleveland's fight with his party would begin before he actually takes the Presidential chair, for it is not more certain that the party at large desires a special session than that Mr. Cleveland does not desire it. Bearing in mind the "bull-dog" element in Mr. Cleveland's character, there seems to us small prospect that he will yield in this matter. He knows, probably that if Congress should come together in March, it would plunge headlong into tariff revision, probably upon a plan that would disturb the industry of the country, confuse—if not destroy—business, and thus array the country at large against the party. Mr. Cleveland has already expressed a desire to go slow, and the surest way to go slow is to let Congress assemble at its regular time, thus allowing something more than a year between the day of victory and the actual assumption of power. During this year there will be time for consultation and for maturing plans, and the chances of well-considered legislation will be much better than if Congress were to come together immediately following Mr. Cleveland's inauguration.

The Silver Congress proposed by the United States some months ago assembled last week at Brussels, and at this writing (Wednesday, November 30th) is in the midst of its deliberations. The American delegates, who with a single exception are pronounced silver advocates, have made a proposition to the conference embodying what they call the "American policy" as to silver. It is, in brief, a suggestion that all the nations in the Alliance open their mints to the coinage of silver just as they are now open to gold, upon a ratio to be determined by the present Congress—preferably sixteen to one. Delegate Rothschild representing Great Britain, presented an English proposision on Monday, to the effect that America shall continue for a period of five years to buy 4,500,000 ounces of silver per month, and that the several European powers shall, during the same period, buy $25,000,000 worth of silver each year. If the price should rise above 43d per oz.(87 cents in American money), purchases are immediately to be suspended. The presumption is that this plan, carried into effect, would hold silver to its present value (or thereabout) for the period of five years which the agreement would cover. In other words, it is designed to maintain a *statu quo*. Rothschild's proposition is a distinct abandonment of English policy, and is therefore a surprise to the financial world, which has all along prophesied that England would not only stick to the gold standard, but would do nothing toward helping to hold up the price of silver. This change of policy is due clearly to the fear that if the conference should adjourn without doing something to relieve the silver market a panic would follow. In presenting his plan, Mr. Rothschild remarked that if the conference adjourned "without accomplishing any definite result it would cause a fall of silver frightful to contemplate; it would cause a monetary panic of which it was impossible to tell the far-spreading effects." The general feeling is that Mr. Rothschild's plan or some other substantially similar to it will be accepted. A dispatch from Brussels published this morning states that—

> The American delegates have strong reason to be satisfied with the recognition of the advocates of monometallism and the seriousness of the dangers arising from further fall in silver. They are disposed to support Rothchild's proposals on the principle that half a loaf is better than no bread. The Indian delegates are also pleased with the proposals, as they will assist the conclusions of the Indian currency commission, and their acceptance will free India from fear of a large fall in silver. The American delegates believe that the continuous absorption of 30,000,000 ounces of silver by the European powers would bring about artificially a condition of the silver market which international bimetallism could establish permanently and scientifically for life.

United States Agriculture.

WASHINGTON, Nov. 20.—The annual report of the Secretary of Agriculture begins with a comparison of the export trade the past fiscal year with former years, and emphasizes the fact that of the more than one billion dollars representing the exports of domestic products the past year, nearly 80 per cent consists of agricultural products, thus not only making the United States the creditor of the world for a sum exceeding two hundred million dollars—the excess of our exports over the imports—but relieving the home markets from the surplus product, which would otherwise reduce the prices to a point below the cost of production.

In regard to the imports, the Secretary finds encouragement for the farmers in the fact that, while in the fiscal year ended in 1889, 54 per cent of the imports were competing with American agriculture, only 44 per cent of the imports for the past fiscal year did so compete. He nevertheless regards the imports competing with the products of our own soil still far too great.

Since the last report, prohibitions against American pork products were withdrawn in all the countries where they existed, and 40,000,000 pounds of inspected pork, which, without inspection, could not have found a market abroad, were exported. He compared the prices for September, 1892, with those of September, 1890, the year before pork inspection was adopted, and shows an increase of 80 cents per 100 pounds in favor of this year—an average of $2 per head on every hogshead.

Referring to the proclamation declaring this country free from pleuro-pneumonia, he emphasizes that precautions were taken before the proclamation was issued, and thoroughly satisfactory grounds were existing for the declaration of our immunity for the control and prevention of Texas fever. He concluded with a declaration that they saved three times as much money to cattle-growers yearly as was required to run the whole department. He says the inspection laws restored the confidence of foreigners in the healthfulness of our cattle. The live cattle exports in 1889 amounted to 205,000 head, whereas in 1892 we exported 394,000 at an increase in value averaging $8 per head.

The Secretary says of the work of his Indian-corn agents in Germany that one result is the maintenance of the price of corn in the face of the largely-increased exports, conditions which heretofore always accompanied a great depreciation in price.

Secretary Rusk says one of the gratifying features of our agricultural industry during the past year has been the marked reduction in the cotton area throughout the cotton States. In connection with this subject, he calls attention to the great increase which has taken place in late years in our imports of raw cotton—imports which but a few years

ago were hardly known. "With a view to checking the imports of foreign cottons, especially Egyptian," says the Secretary, "I have taken measures to undertake, with the cooperation of some experiment stations in the cotton States, experiments with a view to producing cotton of home growth which shall serve as an efficient substitute for the Egyptian. I trust in this we may be successful before the import cotton trade increases to such an extent as to seriously affect our own cotton-growers."

With reference to our cereals, he attributes the excessive anticipations formed regarding the price for wheat throughout the crop year to the failure to appreciate the changed conditions now surrounding the production and marketing of the world's wheat crop. Hence the American farmer can justly reduce the wheat acreage and so bring productions down to the normal demand. Of barley, he says: "The domestic market, which heretofore absorbed ten million bushels of foreign barley, is now reserved for the domestic product, and our acreage and production have increased and been disposed of at good prices."

The experience of the department in the domestic-sugar industry for the past year confirms his former reports, and shows that domestic sugar can be produced with profit to the grower of the crop and to the manufacturer, provided the conditions of culture and manufacture insisted upon by the department are secured.

The rainfall experiments, he says, are being made as Congress directed, but the facts in his possession do not, in his opinion, justify the anticipations formed by believers in the methods of artificial rain-making.

He emphasizes the need for new and suitable buildings to accommodate the department.

Secretary Rusk suggests important changes in regard to the future organization of the department, by which all the divisions' work should be grouped with reference to character into bureaus, following the organization adopted in other departments of the Government. He insists upon the necessity of universal inspection of all animal-food products, applicable not only to products intended for interstate or export trade, but entering into domestic consumption everywhere. He also points out that there are many reasons for making a national standard of grain highly desirable, and concludes that some system of national inspection and grading must be established in the interest of grain-growers, under control of the Secretary of Agriculture.

The Secretary then reviews in detail the work of the several other divisions of the department, office experiment stations and weather bureaus, concluding with a detailed statement of the extent and variety of the contributions planned from the Department of Agriculture to the World's Fair. He concluded by declaring that the work of the department had hitherto been but the foundation of the work, and says he will be quite satisfied if in the future his share of credit in the history of the department will be that he was instrumental in laying a broad and lasting foundation.

Holstein Friesian Sale Postponed.

The sale of J. H. White's horses, in spite of the storm, was a success, and very satisfactory prices attained. It was, however, found necessary to postpone the sale of the fine Holstein Friesian herd until December 7, at 2 P. M., at sales yard, corner Van Ness avenue and Market street. All bidders should note this rare opportunity to bid on these desirable animals.

SHERWOOD HALL NURSERIES.—The handsomest seed catalogue we have ever seen has just been issued by the Sherwood Hall Nursery Co., whose seed depot is at the corner of Clay and Sansome streets, in this city, and whose nurseries and seed-farm are at Menlo Park. Timothy Hopkins, well known for his horticultural tastes and achievements, as well as for his wealth, is the chief owner and James Sproule is manager. The establishment is a strong one financially, and their policy seems to be a generous one to secure patronage. The catalogue is replete with all kinds of garden, forest and field seeds, nursery stock, plants and flower seeds, in which Sherwood Hall has already marked out several characteristic and honorable lines. The catalogue is handsome enough for a library table ornament, and is a credit to California horticulture.

FANCHER CREEK NURSERIES.—Mr. George C. Roeding has continued this year his enterprising efforts to introduce the fig blastophaga from Smyrna. He has received no less than ten consignments by mail, only one of which brought the insects through in good lively condition. But even when thus arriving in good order they refused to install themselves in the capri fig, although Mr. Roeding gave them every opportunity to do so. He now thinks they must be brought in hibernating condition, and then possibly they will be satisfied to begin their life cycle here as they do in Asia Minor. Fancher Creek nurseries have a good stock of fruit trees for this season's trade, which is beginning actively with them.

WINE EXHIBITORS' MEETING.—All who intend to show wine at the World's Fair should write to C. J. Wetmore, chief executive officer of the Viticultural Commission, 317 Pine St., S. F., for a copy of a circular which he has specially prepared for the information of wine exhibitors. All who intend such efforts should, if possible, attend a convention of exhibitors which has been called for Tuesday, Dec. 6, 1892, to be held at 317 Pine St., at 11 A. M. All interested should make it a point to be present, for matters regarding allotment of space, the expense of all exhibits, and other important details are to be decided at this meeting.

CLOVERDALE RAINFALL.—J. G. Heald sends us the Cloverdale rainfall up to the morning of Nov. 29th as 12 92 inches, of which over 10 inches fell in four days. And this report came long before the storm was over!

THE FIELD.

The First Year of the Sugar Bounty.

In the November *American Agriculturist* we find a review of the Government's experience the first year in paying the sugar bounty. This will be of much interest in California, in view of our present and prospective beet-sugar interests. We quote as follows:

The tariff act of October 1, 1890, abolished the duty on sugar of 1 2 5 up to 2⅜ cents on all grades of raw sugar not above No. 16 Dutch standard, and in lieu of the former duty offered a bounty of two cents per pound on all sugar of domestic production, if such sugar tested 90 degrees, or more, by the polariscope, and one and one-half cents if between 80 and 90 degrees. The first year's operation of this law ended June 30, 1892, and covered the cane, sorghum and beet crops of 1891 and the maple sugar product of 1891–2.

There were 4980 producers who applied for the bounty, of whom 727 manufactured sugar from sugar-cane, seven from beets, six from sorghum, and 4240 from maple-sap. The cane-sugar producers were in the States of Louisiana, Texas, Florida and Mississippi. There were two beet-sugar manufactories in Nebraska, one in Utah, and one in California. There were three sorghum factories in Kansas, and applicants for the maple-sugar bounty were all in New York, Ohio, Pennsylvania, and Massachusetts. The amount actually paid out in bounties, up to June 30th, was $7,342.077, of which $7,077.316 went to the producers of cane sugar, $240,098 for beet sugar, and $22,197 for sorghum sugar.

Only $2465 was paid as bounty for maple sugar. A large part of the maple-sugar producers who were licensed made no claims for bounty, and most of the claims which have been presented were not filed in time to be paid before the close of the last fiscal year. The total quantity of maple sugar, upon which the bounty is claimed, is over 3,500,000 pounds, and the bounty to be paid thereon will be $60,000.

The following table shows the proportion of bounty paid in each State, the producers and the material from which the sugar was made:

States.	Producers.	Tons of 2000 lbs.	Bounty paid
Louisiana, cane	619	172,065	$6 882,590
Texas, cane	14	4 408	176 302
Florida, cane	11	456	18,234
Mississippi, cane	1	5	191
California, beet	3	4,088	163,511
Nebraska, beet	[illegible]	1,367	54,690
Utah, beet	1	548	21 898
Kansas, sorghum	3	555	22,407
Massachusetts	5	Maple	122
New York	51	"	1,151
Pennsylvania	[illegible]	"	142
Ohio	30	"	1,051
Totals	757		$7.342,079

Total importations of raw sugar free of duty this year, from January 1st up to August 31st, were 2 630 930,633 pounds, as compared with 2,087,660 745 pounds in the corresponding period last year. The importations of dutiable sugar, above No. 16 Dutch standard, during the same period, were 7,318,845 pounds, as compared with 7,817.936 last year. Exports of refined sugar this year up to August 31st, were 9,297,607 pounds, as compared with 70,564,547 pounds during the corresponding period of last year. Out of the decrease of 61,000,000 pounds, there are 53,000,000 accounted for by the nonshipment of refined sugar to the United Kingdom last year. This is due to the absence of competition among American refiners, who, when prices were cut, found it more profitable to ship abroad, obtaining the regular drawback of duty, rather than to sell in this country at a loss. There was also a decrease of nearly 7,000,000 pounds in our shipments of sugar to Australasia and other countries in Oceanica and Asia, besides a small falling off in our shipments to Africa. The following table is of interest, as showing what countries receive a portion of their refined sugar supplies from the United States:

Lbs. Exported to Eight Months Ending	Aug. 31, '92.	Aug. 31, '91.
United Kingdom	1,802	51,951,802
Germany	35,887	53 995
Other European	309,988	212,948
British North America	1,964 615	2,899 948
Mexico	474,537	376,454
Central America and Honduras	743 446	666,637
Puerto Rico	9 290	11,185
Santo Domingo	126,325	132 261
Other West Indies and Bermuda	2,964,831	3,150,619
Colombia	1,294,421	1,258,895
Other South America	340,173	138,859
Australasia	4 6[illegible]7	2,726 408
Oceanica and Asia	559,311	4,712,792
Africa	278,029	922,100
Other Countries	190,445	349 644
Totals	9,297,707	70,564 547

The total distribution of sugar in this country, from January 1st this year to September 30th, has been 1,102 461 long tons, as compared with 1,197,703 tons last year. This decrease is partly due to the cessation in our shipments to the United Kingdom, and still more so owing to the small fruit-crop this year, causing a lesser demand for sugar for canning purposes.

A report from Havana anticipates a sugar-crop for Cuba 20 per cent less than last year. Owing to unfavorable weather, which has interfered with the growth of the seed cane, it has prevented the exhausted plants from being replaced by new ones. It is, however, somewhat early to make predictions concerning this crop.

Louisiana reports a good average sugar-cane crop, which, with the increased acreage, promises a yield 20 per cent larger than last year. The beet-sugar product of 1892 will probably be twice as large as last year, but no material increase in the sorghum-sugar output is anticipated.

THE STABLE.

Stamboul's Fast Mile.

The Great Stallion Reduces the Record to 2:07½ at the Stockton Kite-Shaped Track.

The performance of Stamboul, the famous stallion, in trotting a mile at Stockton, last Wednesday, in 2:07½, breaking all previous stallion records, was one of the most notable racing events of the year. The record was made under the most adverse circumstances, and the fact that it was on a kite-shaped track should not rob it of any of its merit. The morning of Wednesday was cold and raw, and there appeared to be slight prospect that fast time could be made. At 10 o'clock, however, it was decided to make the trial, and driver Maben had just time enough to give the gallant stallion a working mile when the rain began to descend. A runner, Pinte John, was sent around the track to press Stamboul to his best. The first quarter was made in 0:31, and the second quarter 0:31½, making the half in 1:02½, with Maben scarcely urging the trotter. The third quarter was made in 0:32½, and the rain was beginning to come down in big drops, that were thrown by the north wind squarely into Stamboul's face.

The slight rain just before the start had dampened the track just enough, and these additional drops made it what the horsemen term a little slippery, but Stamboul did not seem to mind. He pushed forward at a merciless pace, with the runner unable to keep up the killing clip.

Maben never touched the animal with the whip, but in this last quarter he urged him to the utmost with his voice. The last quarter was made in 0:32½ and the mile in 2:07½. At the finish a dozen watches agreed.

Stamboul's performance is within 3½ seconds of Nancy Hanks' record of 2:04, made at Terre Haute, Ind., in the fall. The development of the trotting stallion has kept pace with the growing speed of trotting horses, and has always been close to the best records of the latter. In 34 years the record has been lowered from 2:28 (Ethar Allen, in 1858) to 2:07½ by Stamboul. In 1858, George M. Patchen, by Cassius M. Clay, lowered the record to 2:26½. In 1860, in a race with Flora Temple, at Union course, L. I., he again lowered the record to 2:23¼, though, strangely enough, Flora Temple won three of four heats and the race.

On July 29, 1868, at Buffalo, N. Y., the chestnut stallion Fearnaught cut the record to 2:23¼. He made his record in a race for a purse of $10,000, and won in the first, third and fourth heats in 2:23¼, 2:24¾ and 2:26¼. George Palmer won the second heat in the slow time of 2:28, and Colonel Maynard, American Girl, J. J. Bradley, Myron Perry, Victor Hugo and Molly were the other starters.

Less than three months later the greatest speed-producing stallion of the age (except his own sire), George Wilkes, won the crown by making a record of 2:22. He was entered in a $2,000 purse at Providence, R. I., October 13, 1868, and met Rhode Island and Draco Prince, the latter winning the first heat in 2:24½. George Wilkes won the next three heats in 2:22, 2:24½ and 2:25. Although the mighty Dexter in 1867 had placed the regular trotting record at 2:17½, no stallion beat George Wilkes' record of 2:22 till August 7, 1872, when Jay Gould made his mark of 2:22½, though a year previously he tied it in 2:22 Thus another son of Hambletonian succeeded Georges Wilkes. He won a purse of $5,000 in straight heats, defeating William H. Allen and Huntress in 2:27, 2:23½ and 2:21½.

Two years later, at the same track, the mighty Smuggler won the stallion throne, which he held, with the exception of two months, for nearly ten years, the longest reign of any of the stallion kings. On August 5, 1874, at Buffalo, the royal son of Blanco made a record of 2:20¼. He won the first and second heats in a $10,000 purse in 2:22¼ and 2:20¾, Thomas Jefferson winning the race. The other starters were Mambrino Gift, Joe Brown and Pilot Temple. At Rochester, August 13th, Mambrino Gift, by Mambrino Pilot, dam by Pilot Jr., won the first money in the 2:26 class in straight heats in 2:21, 2:20 and 2:23, with a field of five behind him. He did not long retain his honors, however, as on September 15th, at Mystic Park, Boston, Smuggler tied him in 2:20, winning the $10,000 stallion champion purse. In this race he defeated Phil Sheridan, Henry W. Genet, Commonwealth, Mambrino Gift and Vermont Abdallah. July 15, 1876 at Belmont Park, Philadelphia, he defeated Judge Fullerton in 2:17½, 2:17 and 2:20. His fastest record of 2:15¼ was made August 31, 1876, at Hartford, in the race won by Goldsmith Maid. Smuggler won the first and second heats in 2:15¼ and 2:17, and trotted a dead heat with the Maid in the third in 2:16¾. The other starters were Judge Fullerton and Bodine.

Phallas is the last of the stallion kings who obtained his champion record in a race and the first of the grandsons of Hambletonian to attain that honor. July 14, 1884, at Chicago, Ill., he defeated those three great campaigning mares, Catchfly, Clemmie G. and Fanny Witherspoon, in 2:15¾, 2:16¾ and 2:13¾. After a lapse of eight years, the record was then reduced from 2:15¼ to 2:13¾.

Maxey Cobb, 2:13¼, Axtell, 2:12, Nelson, 2:10, Allerton, 2:09¾, Palo Alto, 2:08½, Stamboul, 2:08, and Kremlin, 2:07¾, the champions in succession from 1884 to the present date, have all made their records against time Axtell has a race record of 2:14, Nelson of 2:13, Allerton of 2:13¼, Palo Alto of 2:13, Kremlin of 2:11½, and Stamboul of 2:15, though in justice to the latter it must be said that had he had any race opportunities during the last three years he would have had a far faster race record. Stamboul has now in turn defeated Kremlin's record against time and is the champion.

THE STOCK YARD.

Beet Pulp—Its Value for Feeding Purposes.

The following paper, prepared by RICHARD GIRD, was read before the Farmers' Institute at Santa Ana.

It is hardly possible for me, at this early day, to give an intelligent and accurate statement of my experiment in feeding beet pulp this year, as I did not commence feeding my siloed pulp until a few weeks since, and have not data from which to make comparative statements of sufficient accuracy to be of material value; still, I will give some ideas and my new experience in the matter that may call others' attention to the further experimenting, as well as myself.

The economical use of the waste pulp from the beet-sugar factories in Europe has long since been determined by the most scientific methods, as far as feeding cattle for beef is concerned. The plans there adopted are for the beetraisers to purchase poor cattle in the spring, use them as work animals during the season of plowing, cultivating and harvesting the beets, then feed them on the siloed pulp in the winter to fit them for the market in the spring. The quality of the beef is said to be excellent, and bears about the same relation to the European market that our stall or corn-fed beef does here; it has a beautiful marbled appearance, with the fat white and hard. In this manner the beet farmers not only get the benefit of the work from the animals to cultivate their crops, but with that same crop prepare these cattle for the market in the most economical and successful way.

I am now following the same process of fattening, only that I bring my steers from Arizona and feed them on the siloed pulp in connection with chopped hay, in the ratio of about five pounds of chopped hay to 60 or 70 pounds of siloed pulp.

The beet pulp should never be fed until it has been siloed at least 60 days, as the nutritive qualities are very much increased, and its feed value in proportion.

During the beet campaign, about the 20th of September, there came along a wandering Texas cattleman with the remains of a herd of about 50 or 60 head, who had heard that beet pulp was good to fatten cattle with. I permitted him to bring in his cattle, gave him my pens to put them in, and he commenced feeding, as above stated, on the 20th of September. His cattle were then in as poor condition as cattle could be and manage to move around the country—thin and scrawny as possible. There are now, at this writing, many of them fit for the block, and all doing as fine as any cattle I ever saw. At first they were fed on the raw pulp, and later on the siloed pulp, when the fresh pulp was all out at the end of the campaign; they commenced doing much better on the siloed material than on the fresh, and ate it with apparently more relish.

This party purchased all his pulp at 50 cents per ton, and has since been importuning me for the privilege of bringing more cattle to feed.

This we can consider absolute proof of what the feeding of beet pulp for beef-producing purposes will do.

I have, I believe, made some new experiments with sheep that I find no record of in the books, and I believe it has never been successfully tried before; I find it certainly, either in the crude state as it comes from the factory or after it is siloed, the best sheep-feed I have ever heard of. With a very small amount of roughness, such as whole straw or hay, and the beet pulp, the sheep fatten astonishingly quick, and their meat is very fine. Six weeks is sufficient to make sheep fat, profitable and agreeable to use as mutton; and the trouble of feeding them is very little, as it is only necessary to put the pulp in the trough twice a day and a little hay once a day, and they take care of themselves for the balance.

Another use for which it is destined to be of great importance in this country is for dairy cows. I am now feeding, I calculate, about 60 pounds of siloed beet pulp per cow; and although in the fall of the year, with cows by no means fresh, still they are doing as well as they would in the spring season on the best of green grass, and the butter is of a fine quality, naturally hard and not the least bit oily, as is the case with butter from alfalfa-fed cows; in fact, the butter is of a superior quality to any I have made from other classes of feed.

We must not lose sight, also, of the fact that the sugar made from the sugar-beet takes absolutely nothing from the soil, and, by feeding the pulp and mixing it with certain proportions of solid food, the manure thus made, if returned to the soil, continues to enrich it to a by far greater degree than by any other crop that can be grown out of the ground. This is so well understood in Europe that lands adapted to beet-growing have become very valuable, not only for the profits of the beet crop itself, but for the benefits the land derives from the constant increase in richness and resultant increase in value for other crops.

The cattle (about 1000) that I have in pens and feeding as above stated are doing finely, and take to the feed in the course of a week, when they seem to eat it with more relish than anything that can be placed before them. I think it important to chop the hay and intimately mix it with the pulp in order to get the best results. I am using cornstalks, and, by mixing with the pulp in this manner, they eat every particle and nothing is wasted.

I have weighed into my silo pens all the cattle I have put in to fatten this season, and, when they are ready for market, shall weigh them out again, which will give me the exact result of the profits of the feeding this year.

My silo is 500 feet long, 60 wide and 10 deep; the pulp is delivered into it from cars run overhead on trestles, and taken out of it on two tracks laid down on the bottom of the silo on each side of the trestle, which I find a very convenient plan. I calculate that I have from 10,000 to 12,000 tons of pulp in the silo, which is now in magnificent condition, and after having, through drains and other appliances, been freed of most of its moisture, is about the consistency of old cheese.

Too much importance cannot be placed on the necessity of siloing the beet pulp, even if it were for as long as five or six months.

My expectations are to feed my steers during the winter and be able to market them on the high prices of the spring months, which would be a very profitable undertaking.

When southern California is dotted over with beet sugar factories, as it will be before many years, the feeding of the beet pulp will be of great economic importance in saving to the community a large portion of the money that now goes out for beef, as well as giving us a much better quality.

In conclusion, I will say that the beet-sugar campaign just ended on the Chino ranch has been most decidedly successful, and has demonstrated (with an output of 7,903,000 pounds of sugar) beyond question the adaptability of our climate and soils for this most important industry, which, more than any other of which I have any knowledge, is adapted to that class of cooperation which enables the farmer to divide with the capitalistic manufacturer the profits of his agricultural labors.

Appended is an analysis of dry pulp, which is beginning to be used very satisfactorily in Europe, but which, on account of the expense of drying, will probably not come into use in this country for some time to come. My own experiments in this direction this year, in sun-drying, were not satisfactory, as it was too expensive and occupied too much time.

Water	11.6
Ash	7.1
Crude protein, of which digestible 4.1 per cent	6.6
Fiber, of which digestible 16 per cent	19.3
Nonnitrogen matters, digestible 45.9 per cent	54.8
Fats, of which digestible 6 per cent	.6

The dried pulp furnishes a food which is preserved indefinitely without alteration, provided it is put in a dry place.

FARMERS' INSTITUTES.

Deciduous Fruit Trees from Nursery to Orchard.

An essay by JOHN BURR, of San Fernando, read at the Southern California Farmers' Institute at Santa Ana.

This is a subject which, to embrace the general varieties of deciduous fruit trees in detail, would require a very lengthy paper; consequently, I will only treat of the pear and apple, the prune, apricot and peach, the general mode in their propagation, their transplanting from the nursery to the orchard, pruning and general management until they are in full bearing.

THE PEAR AND APPLE.—Pear and apple seed should be bedded from the first to the middle of February. Prepare the beds in the usual manner by laying them off four feet wide, leaving an alleyway from one foot to 18 inches between each bed. After the beds are marked off, remove the dirt about three inches deep, putting half to each side in the alleyway, then turn in some water, and while it is running take the back of the rake and move the dirt where it is necessary to do so until the water, while running, covers the entire surface, then turn the water off and allow the surface of the bed to dry sufficiently to be raked over. Now sow and cover your seed about 1½ inches deep. If the soil is heavy sand should be mixed with it, so as to prevent baking. After the seed is sown, do not allow the beds to get dry; sprinkle lightly every afternoon if the weather is dry; if cloudy or wet, it will not be necessary. The seeds will germinate in about four weeks, after which the plants should be handled just the same as any other seedling. In my experience, I find it much better to buy French seedlings through some responsible importers sufficiently early so that they can be handled while the sap is still dormant; no perceptible loss need be sustained in transportation. If stock is imported, on receipt of same unpack and heel in where it will be protected from the direct rays of the sun until you are ready to plant in the nursery. While it is heeled in, give it a good soaking of water, as the sap will commence running.

NURSERY.—Prepare the land thoroughly by plowing at least nine inches deep, and if inclined to be stiff or heavy, it ought to be leveled so that it can be irrigated, as it is economy to prepare land for irrigation, where it is practiced or necessary, before anything is planted on the land. After the land is plowed, subsoil if desirable or necessary. When harrowed and smoothed over, mark off the rows 3½ feet apart by stakes; then a very light furrow may be run, or a line stretched. I prefer marking by a very light furrow, and if the ground has become solid by rains or other causes, to run a subsoil plow in the furrow where I am to plant; by doing so, the planting can be done much quicker and better. The furrow being slightly depressed, unless the roots are very large, the planting can be done with a common garden trowel, pressing the soil firmly about the roots and running water down the furrow to solidify the soil as before. As the same treatment is necessary for the different stock in nursery rows before budding or grafting, I will proceed to treat on Myrobolan and peach stocks for stone fruits.

I consider it cheaper to import the Myrobolan roots than to raise them. I buy mine from Mr. Kelsey of New York, agent for the Colombo nurseries. The treatment I have described for the imported pear stock is also adapted to the Myrobolan roots.

PEACH ROOTS.—I prefer the seedling peach pits for seed, if they can be had; if not, I prefer the cling to the freestone. On receipt of the pits from the cannery, they should be buried in sand until about the middle of December, at which time they should be put in beds, similary prepared as described for the seed. From the middle to the end of February they will begin sprouting. As soon as they appear well started, they should be dug up carefully and planted in nursery rows. More care will be necessary in handling the peach than the pear, as the growth, if started much, will be very tender, consequently they will have to be carefully handled, keeping them shaded until they are planted. As soon as they are planted in the nursery rows, irrigate at once to settle and pack the soil around them. As soon as the ground is in condition, cultivate. The only care necessary during the summer will be to irrigate, cultivate and keep them in good growing condition. By the month of September they should be from a half to three-quarters of an inch in diameter and ready for budding. I prefer fall budding for all varieties of nursery stock for the following reasons: The growth of the stock is very soft and spongy in June, so that when cut down they will sometimes bleed to death; again, if only broke over, nothing can be applied on the wounds to prevent bleeding, and the results are that they will be of little account to sell. June budding is more succesful in the northern part of the State, where it is somewhat cooler. In fall budding, the stocks should be gone over and prepared for budding by removing all the suckers and lateral shoots about three weeks before budding, and if growing on irrigated land give them a good watering; then in about another ten days give another, and about September 15th they should be in fine condition to bud.

BUDDING.—Prepare your buds carefully, selecting well-ripened wood and cutting off the leaves as you cut the sticks from the trees, keeping them in a damp sack. It is, in my opinion, useless to go into the process of budding minutely, as this subject has been written up so often by thoroughly practical men that the subject is threadbare. Suffice it to say the tools necessary are budding-knife, stone, strap, and a small box to hold the buds and twine. Cut in lengths from six inches to one foot, according to the size of stock, and if there is any likelihood of dust or dirt on the stocks, use a brush or cloth to rub them off. In making the cut, do not make the perpendicular cut long, as the bark will hold the bud more firmly in position until tied. In tying, draw the line tightly, but not hard enough to cut the bark. In about three weeks it will be necessary to cut the strings; then, if desired, the failures can be rebudded. Do not give too much water during the rest of the season to encourage the buds to start. About the month of January the tops can be cut off; then, when the buds start, if any are found to be dead, as soon as the sap is in action they can be grafted. If the stocks are large, cleft-grafting is the best, but if small I prefer the tongue or whip grafting. Keep the grafts and buds clear of suckers during their season of growth, and the result will be, with good land and a reasonable supply of moisture, nice, straight trees, from four to six feet in height.

REMOVING THE TREES FROM NURSERY TO ORCHARD.—Having selected the land for the orchard, if there is any portion of it heavier than the rest, select the heavy land for the peach and apple, then the prune, then the apricot, and then the peach. In removing the trees from the nursery rows, run a plow down on one side, then dig down and cut the roots and pry them out, unless it is convenient to use a tree-digger; if so, care must be taken not to cut the roots too short. As soon as dug they should be heeled in trenches about four feet wide, with depth enough to cover the roots well until they are planted out, which may be done any time after January 1st.

In preparing the orchard, the ground should be plowed thoroughly after the first rains, and if in a district where it is desired or necessary to irrigate, if the ground after plowing is found to be uneven, it should be leveled; then, before planting, cross-plow or run a smoother over it, then it is ready for staking out.

Unless the soil is very strong, I think 20 feet is about the right distance. I prefer the triangular or quincunx system. Dig good-sized holes, unless it is very loose soil. In planting, cut off all bruised or broken roots with a knife or sharp shears. Pack in the soil around the small roots, and, where possible to do so, I would advise running a stream of water on them right after planting, for the purpose of solidifying the soil with the roots When the planting is finished, I would advise cutting back to about 2½ feet.

When the buds are about to break in growth, if any of the trees look backward, I would advise giving them some water, as this is the most critical period of their growth. If it is not convenient or desired to irrigate, I would mulch them with some rotten straw; it keeps the ground cool around the roots, and keeps the moisture from evaporating.

Keep the ground clear of weeds and well cultivated to insure a good growth the first year. Keep the shoots rubbed off the stems to about 18 inches up, and at the end of the first year they will have formed a fine, uniform growth.

SECOND YEAR PEAR AND APPLE.—Select about six of the most uniform shoots to form your permanent top, and cut back all the surplus shoots, leaving them about two inches long to form fruit spurs, and cut back the main shoots to about 18 inches, cutting them to a bud leading in a direction it is desired to have the shoots go. During the summer growth, if possible, pinch off or cut back any shoot that may be growing more vigorously than the rest; by that means a great deal of winter pruning may be avoided. Treatment of peach trees the second year should be somewhat different after selecting the main branches as advised. For the others, thin out any surplus stock, instead of cutting back to form fruit spurs, and keep the ground well cultivated.

THIRD YEAR PEAR AND APPLE.—Pruning should be done as soon as the leaves commence turning, with enough sap in the limbs to fill out and fully develop the fruit buds, which will now be formed on the peach and apricot. There should now be a top on the trees of considerable size. Where the limbs were cut the second year there will no doubt be several shoots; selecting the best to continue the top of your tree in its uniform condition, and where there is room for side limbs, allow some of the lateral shoots to remain for fruiting wood on the peach and apricot, cutting back the points of the shoot and also the main limbs, leaving about two feet of this year's growth. Again, cut to a bud, if possible, on the upper side, as the limbs will now

bend down. Thin out the lateral, leaving shoots showing fruit buds when not too thick.

PEARS, APPLES AND PRUNES, ETC., THIRD YEAR.—Cut back the main limbs to a bud, leading in the direction desired, leaving about two feet of growth; then cut back the side and lateral roots to about two buds to form fruit spurs. What was cut on the second year's wood will have buds all around. Some may have gone to wood, but where that is the case, shorten back, unless there is plenty of room to allow other limbs to grow; then shorten them back, and handle as in the main limbs.

FOURTH YEAR.—I would now advise less pruning, as peach and apricot will now be bearing, and the fruit will exhaust a good deal of the sap, consequently there will be less growth, and unless it is desired to throw more vigor into any portion of the tree, I would advise less pruning, merely thinning out, regulating the branches as in the peach, leaving plenty of young wood.

Pears, prunes and apples will also require less pruning, merely shortening back main branches and cutting the side shoots to form fruit spurs, keeping the spurs close in to the limbs. The same course will have to be pursued from year to year, keeping the trees well balanced, and thinning out when too thick. In my opinion, a great deal of thinning might be saved by judicious pruning.

HORTICULTURE.

Prune Culture from a Commercial Standpoint.

An essay read at the San Jose Fruitgrowers' Convention by JAMES E. GORDON, of Miramonte, Santa Clara county.

Many years ago a humorist with a world-wide reputation, being asked for his advice to those contemplating matrimony, boiled down his answer to the one word *don't*, and my advice to the grand army who are about to enter the ranks of the prunegrowers in search of a fortune, is equally brief and sententious—*don't*. The humorist's advice has not been heeded, and men and women are constantly entering into the bonds of matrimony, notwithstanding the fact that the newspapers tell us that marriage is a failure and a lottery. The fact that it is a lottery seems to be one of its chief attractions, and the same fact is equally true of the prune business in all its stages, from its inception in California's sunny nurseries until it reaches its grave in the stomachs of some of our eastern brethren. My sincere advice, therefore, to nine out of ten who would forsake their present vocations to enter into this untried field is, briefly, *don't*; but to the tenth, who may possess all the qualifications necessary to insure success, the following facts may be of value: In the first place, don't enter our ranks under the impression that we are lonely. On the contrary, the fruit industry, of which the prune is an important element, now numbers, assuming 40 acres to be an average orchard, 500,000 producers, to say nothing of the thousands of distributors; and it has psssed our gold and grain production and become the leading industry of the State. Eight years ago, when the writer entered the business, California's prune product was hardly a million pounds. Last year he handled over a million pounds himself, which was scarcely a thirtieth of the whole.

Don't engage in this business unless your heart is in it, are fitted for it and prepared to stay by it. Don't listen to the oily tongue that would assure you that you can live in San Diego or Alaska and run an orchard in the Santa Clara valley, because it cannot be done successfully. It is worthy of and needs your undivided personal attention. Don't go into the business unless you have ample capital to buy a healthy, bearing orchard, or wait for a new one to come into bearing. The trials, losses and disappointments of the multitudes who have tried to raise an orchard without the means to do it properly is too sad a picture to portray, and we will pass it with the simple reminder, don't go and do likewise. The writer came here eight years ago seeking rest from the excitement of a wholesale mercantile business in San Francisco, not knowing a prune tree from an apricot, and bought the highest-priced bearing orchard in the county. It was an orchard set out by business men on business principles, and under proper conditions, and has always paid a good interest on $1000 per acre, and he has never regretted the act, and to those who are able to do so this is a practical solution of the prune problem. Now, as to the capital required, it will depend, of course, on the scale upon which you wish to operate. Land in this county near the railroad is held at $200 per acre; five to ten miles back, at $100. The highest priced is not necessarily the best, often the reverse, and under no circumstances should you pay to exceed $150 per acre for level valley land, because the future of the industry will not warrant it. Cost of trees, planting and cultivation, first year, $30, or say $180.

Five years must elapse before a crop can be obtained at an annual cost for cultivation of $10, taxes $2, interest $20, sundries $3, or say $175 plus $180, making $355 per acre, besides cost of living, and provided your trees all grow and have no setbacks. Having a love for the business and the necessary capital the most important consideration will be choice of location. Don't be led away by the idea that you can raise as good prunes in one part of the State as you can in another, because you cannot. Every green-fruit shipper in the State knows that the best pears come from one district, the best cherries from another, and our own San Jose canners know that when we would compete for the best peach trade we must seek the fruit outside of our own county. For the same reason, it is a notorious fact that the best prunes in the world are produced in the Santa Clara valley, and particularly in that part near Los Gatos, Saratoga and Cupertino, known as the West Side. Every intelligent horticulturist must admit that foothill prunes grown without irrigation are much superior to those grown in the valley, whether irrigated or not, on account of their greater percentage of sugar and fruity flavor. When our driers buy prunes grown in adjoining counties and mix them with our own their inferiority is so marked that they rarely repeat the experiment. The loss by shrinkage is much greater, and the flavor so insipid that it does not pay to handle them. This is equally true of the irrigated valleys of southern California. Ten years hence the prune-grower of Los Angeles will wish that he had stuck to his orange groves, and the residents of Tulare will realize that the very conditions which render it the natural home of the raisin make it equally unprofitable for the prune. There is no personal feeling in this statement, because although the writer's home is in Santa Clara county, he has large interests in Tulare county, and has unbounded faith in its resources, but not as a prune center. Herein lies a source of great danger to the prune industry, because thousands of orchards are being planted in unsuitable locations which in a few years will be producing millions of pounds of inferior fruit, which will bring down our good fruit to a price leaving but a very small margin of profit.

We must then cease to sell our product as California prunes, but under a name which the markets of the world will then have recognized as a type of the highest excellence—that of "Santa Clara" prunes.

Having decided to locate in Santa Clara county, don't buy a piece of land because it is widely advertised. While judicious advertising is both proper and profitable, yet we all know that the greatest humbugs are always the most widely advertised, and this is particularly true in land deals. Don't be in a hurry; carefully examine the soil and characteristics of each piece submitted, compare the growth and condition of adjoining orchards with others you know to be good. If there are no adjoining orchards, let it alone unless you can afford to experiment in untried fields for your country's good. Over 50,000 prune trees were replanted this spring near Hanford, Tulare Co., to replace those dying from too much alkali. What a world of toil and trouble might have been saved had they been planted in this valley! Don't pay a high price because it is near a railroad, because your crop is not perishable and is not sold green, or to a cannery, but will be sold to the nearest drier or dried yourself, and a few miles' haul is not an offset to a high price for your land, particularly if the price of fruit be low. The price named—$150 per acre—is high enough; $100 would be better, and good land can be had at that figure.

In choosing a location, climate is a potent factor, second only to the character of the soil, and only when the two are properly united can we secure a perfect prune. Prunes will grow all over California, so they do all over Europe, but we all know the marked difference between Austrian and Turkish on the one hand and French on the other. As the finest prunes have always been produced in the valley of the Lot in southern France, so we find the same conditions in the contour of our Santa Clara valley, its distance from the ocean being such as to aid in producing that long, even temperature and slow ripening which is all-important in developing the saccharine and imparting the flavor so essential in a first-class prune. The greater rainfall in the extreme north of California, Oregon and Washington, and the excessive moisture, causing the fruit to split and crack, shrivel and lose its flavor, renders these parts unfit for the cultivation of the prune. The same remark applies to such parts of southern California where excessive irrigation is practiced, and refers to the French prune of commerce only. Italian and perhaps Silver may be grown under such conditions, but these are not under consideration. Oregon and Washington can never compete with us for another reason. They are obliged to use driers, while we can cure in the open air by the direct heat of the sun, which imparts an aroma or bouquet which no artificial means can equal. Having bought a suitable piece of land, don't think all you have to do is to scoop out holes 20 feet apart and stick in a tree, but plow. Plow the whole tract—the deeper the better. It may cost you $5 or even $6 per acre, but it will come back to you in fruit a hundred-fold. If you can raise a crop of corn or grain before planting, all the better; but don't plant any crop between the trees to deprive them of nourishment, particularly hay or grain. Corn is least harmful, and shades the trees.

Don't be so foolish as to buy cheap trees. Of all follies this is the greatest Don't buy Eastern, or Oregon, or other outlandish trees, but go to a reliable California nurseryman or some neighboring orchardist, many of whom raise a few thousand every year for sale. Don't buy two year olds, but wait until you can get one year olds. Don't make the mistake of planting them 15 feet apart, because you can get nearly 200 to the acre, while at 20 feet you can get but little over 100; an acre will not support 200 trees and they must necessarily die young; 20 feet is near enough, 25 feet is better.

Don't plant your trees until you know if the stock and soil are adapted to each other. Prune, budded or grafted on peach stock in a light, warm, sandy soil, will do well and are the usual conditions, while on damp, clay ground only the myrobolan or wild plum stock has so far been successful. On heavy, dark, alluvial loam, slightly gravelly, almond stock is better—bitter almond, if possible—and is the best of all for our foothills, where deep, gravelly and sandy soil abounds. Irrigation is not necessary and the almond root reaches down to moisture and thrives where the peach root would die.

Don't be induced to try German, Italian, Silver, or other varieties, for which there is no market, especially the Silver prune, which came to us from Oregon and to which, by all means, let it return. The prune of commerce known as D'Agen was planted near San Jose by Louis Pellier in 1856. The first orchard of same to attract attention was the Bradley orchard near San Jose, and the next and perhaps better known was the O'Banion and Kent orchard near Saratoga, now owned by the writer under the name of Miramonte. There is a variety of this prune improperly called Robe de Sargeant, which is but a synonym of D'Agen. The real name is D'Ente and it is known by its dark color when dried, its glossy surface requiring but little dipping, and its slight acidity, which, like the German, causes it to be preferred by many. The prune-growing district of France is a little larger than our Santa Clara valley, but has six times the population. Agen is the town from which most of the prunes are exported and corresponds to San Jose in this country. There are no commercial orchards as we have here; one acre is a good-size farm and the prunes are carried to market by the women in baskets on their heads, and sold to dealers who pack and ship the medium and small sizes, retaining the large ones for home trade. Their net profit varies from $30 to $60 per acre, the larger returns being always from the foothill farms, as in our own case.

One reason of the superiority of our prunes is that we always propagate from seedlings, while in France the rule is to propagate from suckers, the very worst system possible. Under these unfavorable circumstances and their exhausted soils, the life of a prune tree is 25 to 50 years, so the croakers who think our oldest orchards 15 or 20 years old are ready to die, will probably die themselves before their predictions are verified.

Don't believe machine drummers who assure you that the latest patent cultivators will keep your orchard in perfect condition. They are usually nuisances, soon finding their way to the junkshop. Stick to your plow, plow every year, not every other year, then harrow and clod-mash, and you will have done a job to be proud of. Nothing has yet been invented to beat the old reliable plow and harrow.

Don't allow any weeds to grow, and keep your soil so thoroughly pulverized that when the ripe fruit drops it will not bruise. Such thorough cultivation renders irrigation unnecessary, except in a year of light rainfall one good wetting-down during winter will be of benefit, but summer irrigation is but of little value.

Don't get rattled on the subject of pruning, which has proved a most prolific breeder of cranks—no two alike. Prune, prune when the trees are young, prune when they are old, never of course to excess, but until you have a stout, stocky trunk capable of sustaining large crops without bending or splitting, and not liable to die easily, then keep on pruning and you will never regret it. A magnificent tree, with its branches sprawling all over the ground and splitting and cracking under its load, is a scene so shiftless and degrading that we will not dwell on it.

Don't get scared about pests. Like the measles, you are sure to have them sooner or later, but prunes are less troubled this way than any other fruit. Considerable capital is invested in drugs and spray pumps, but nothing has yet been found to equal nature's remedy, the parasite known as *Chilicorus Bivulneris*. If you must spray, don't buy any patent mixtures from unknown advertisers, but buy pure drugs at wholesale, and do your own mixing.

Don't get excited and think you are ruined when the prunes begin to drop in the spring. Let them drop; get in and help them drop some more. It is nature saving you the expense of thinning, and what are left will be larger and better for it.

Don't listen to tree agent's statements that the demand for prunes is practically unlimited and will tax the entire prune-growing area to its fullest extent to supply. Give me the product of the Santa Clara valley and I will supply the whole world. It has a tillable area of a quarter-million acres, which, at one ton to the acre, would produce 500,000,000 pounds, nearly ten times the present consumption of the United States.

Don't spend too much time ascertaining the condition of the crops in France or Turkey; the American apple crop is the true barometer of our prune market. When there is a good supply of dried apples, our Eastern sisters in their marketing don't care if our prunes are five or ten cents per pound, but when there are no apples they must have prunes, and as we have always compelled them to pay a round price, it is not surprising that they are not more popular, because ten cents to us means 12½ cents to the wholesaler, 15 to the retailer and 20 to 25 cents to the consumers, and they can not and will not stand it when they can get a substitute. The French crop of 1890 was the largest for nearly 20 years—40,000,000 pounds—while the average for that period was only 20,000,000, or about the present California average; and, after trying during the last two years to retain their hold on American markets by mixing their product with ours and imitating our packages and labels, they have practically surrendered and are seeking other markets. During the season of 1888 the writer took an active part in a well-concerted movement to bear the market for the purpose of securing a wider distribution, and succeeded in arousing the enmity of many, who snubbed him by saying they wanted no five-cent fellows coming around. The result was a success. Prunes sold at four to five cents per pound; were sold East far below any former price; found their way into the mouths of thousands who had never tasted one before, and caused such a demand that the foreign were driven out and the large yield of 1891 readily marketed, and those five-cent fellows had more to do with the present condition of the prune market than the much-talked-of tariff.

Don't expect a crop in three or four years and when you do get one don't expect a thousand pounds to the tree. We read of such things down south, but overwork a three-year-old colt and you will have a horse fit only for the boneyard. Apply the same principal to a prune tree and you will soon have an excellent quality of firewood. It stands to reason that life cannot be maintained under such a strain.

Don't be deceived by the report that Jones of Napa or Brown of San Bernardino sold his crop at the rate of $500 per acre or over; he may have had but one acre, or under unusual circumstances secured that price one year for a few acres, but don't go to figuring out ten acres at $500 and expect $5000 per year off every ten-acre plot in bearing, or you will come to grief, and deservedly so. A properly trained and cultivated orchard after its sixth year can be expected to produce annually an average of 100 pounds per tree, or five tons per acre; average price last five years $40 per ton, or $200 per acre. A liberal deduction for cost of production, including taxes and interest, is $75, or $125 per acre profit, being 10 per cent net on $1250 per acre, or 30 per cent on actual cost. Don't flatter yourself, however, that this state of affairs is to continue. On the contrary the average the next five

years will not be over $20 per ton, or $100 per acre, while the expenses may be kept at $60, or say $40 per acre profit, or 10 per cent net on actual cost. This is better than most mercantile ventures and should satisfy any reasonable man, but it can be obtained only under the favorable conditions herein set forth. Thousands of acres have been, and will be planted, that through ignorance and bad management will never produce a paying crop, and it will be in this as in every other department of life, a survival of the fittest. Those who understand the business and attend to it are likely to make money out of their superior goods, even at the very low prices that are likely to rule in the future. When your crop is ready to harvest you will find but one way to handle it, viz: To dry it. It can be canned, but is not salable in that form, and there is no demand for the fresh fruit. Don't be in a hurry to harvest your crop.

PICKING AND DRYING.

Men have been known to knock off the fruit with sticks and clubs, and shake the trees to the very roots; such prunes when dried would pass for shoe leather. Let the fruit remain upon the trees until ripe enough to fall of its own weight, or by a very slight jar. Don't dry your own fruit. Don't listen to your neighbor who dried ten tons and sold for ten cents, when he could only get two cents green. Take the last five years, or since we have had prunes to sell, and the grower who has persistently sold his crop green to the nearest drier and balanced his books in September, is way ahead of the speculator who wants every cent there is in it, and won't give the other fellow a show. We are born speculators and the same spirit which induces us to take our chances in the great California lottery of prune-growing makes us hold our crop to take the chances of the market. I never knew an intelligent farmer who did not admit that prompt sales of any produce when ready for market netted the best results, and prunes are no exception to the rule.

When the farmer or grower passes out of his domain to enter that of the commission merchant, he usually comes to grief. The driers have been the best friends the growers ever had or will have. They were our friends and neighbors, risking their all; at all times paying the highest prices, and with one or two exceptions paying promptly and fully, and what have they met in return? Not even common courtesy, but abuse and misrepresentation, causing many to fail outright and many more to remove their business to Tulare and other newer fields, where, let us trust, they may be better appreciated. The result will be that we will be brought nearer to the consumer—one middleman less—but the one we can least afford to lose. The Eastern buyers and their agents will build stately warehouses along our railroad tracks, at our expense, fix the price they will pay, and divide the crop between them. This they can readily do, because if every man is to dry his own crop, there will be no uniformity, the lowest price paid to all, and the buyer gets all the benefit of the careful grower's extra quality. They will then lay down the law after this fashion: One cent per pound green pays you a profit, three pounds will make one of dried and cover all expenses; therefore we will pay you three cents for your dried prunes. Where will our friends be then who have been sitting up nights figuring out their fortunes on a basis of 10 cents per pound.

A partial remedy for this condition of affairs lies in co-operation—a combination of 10 or 20 growers for the purpose of drying and marketing their crop. But this relief is only temporary—only while good prices can be had. Let one or two poor years ensue, and the managers will be accused of every crime under the sun and be glad to retire in favor of others, probably less competent, who will soon wreck the association. It is a saying that when a man makes a failure of everything else, he opens a real-estate office, and accounts for the prejudice so many entertain against such dealers, and the same remark can be applied with greater truth to fruit-growing. The percentage of intelligent growers who attend our conventions keep posted and understand the needs of the business is small, and it is not surprising that such heterogeneous elements cannot be brought into one harmonious whole. A better solution of the difficulty lies in an exchange, such as the Santa Clara County Fruit Exchange. It ought to be an easy matter to convince one hundred men, each having ten tons of prunes to market, that it is better to allow the exchange to offer 1000 tons for sale and sustain the market rather than have 100 men with a pocketful of samples wear the life out of the limited number of buyers and break the market all to pieces in their anxiety to realize. A plan of such an exchange is before the growers of this valley, and the only comment necessary is that it meets the approval of all practical business-men who have investigated it.

The advice not to dry your own fruit is, therefore, well-founded when applied to the majority of growers owning from 10 to 30 acres; but some of us have 100 acres or more, in which case we must be prepared to do our own drying, and, even a step further, be our own salesmen. Under these circumstances, a few directions as to the drying may not be amiss. Don't economize as to necessary modern implements. Don't, I beseech you, dip your prunes in an old iron pot where the mud is so thick that you can almost cut it with a knife. I have seen this done even this very year in an establishment that claimed to produce first-class prunes, and I do not know who I pitied the most, the proprietor or his customers. Have some regard for the latter and use plenty of flowing water. The best machine for this purpose is the Cunningham dipper, which has two compartments, the first containing boiling lye, which must be kept boiling by means of steam coils. The prunes drop through a hopper on to a draper, which carries them up and over into the next compartment filled with cold water, and out of that drops them on trays 3x8, holding about 80 pounds to the tray, which can be handled by two men and are more economical than 2x3 handled by one man.

The drying is facilitated by grading into three or four sizes as they come in from the field; but this grading should not prevent grading after they are dried, as buyers are getting very captious and insist on exact grading, the slightest variation being seized upon as a pretext for rejections and reclamations except in years of scarcity, when everything goes. Chicago has been our largest customer and at the same time the most unprincipled, going to extremes in this matter which no other city has dreamed of. Slow drying, like slow ripening, is essential to quality. A prune that takes a week to cure is far superior to one that cures in two days—another objection to prune culture in our hot valleys of the interior. A climate free from fog is also desirable, so that the trays need not be stacked every night. They are sufficiently dried as soon as the water is all evaporated, but should be soft and pliable and not rattle, unless you are going to ship them to Chicago, where they want them dry as gravel stones, so they can turn the waters of Lake Michigan on them, to their great advantage.

MARKETING.

You now, having escaped the Scylla of the business, stand confronted by the Charybdis, a monster that would rob us of all the benefits we have secured up to this point and give them to the middleman, and that is, the kind of package in which to ship. Don't make the fatal error of shipping in bags; it is a device of the devil, concocted in Chicago, compared to which the tariff scare sinks into insignificance. You cannot look to the commission merchant for help in this strait; he will stand by the buyer because his commission is easier earned by that course than by working hard for a better price for a better article. Any fool can sell a man what he wants by cutting the price, but it takes a smart man to sell him an extra quality, well-packed, and such men are very scarce in that business. By selling in bags you lose your identity; the dirty, dusty bags with juice oozing out of them are no addition to a well-kept store, are cut open and thrown away, while an attractive box and label is a perpetual advertisement of your name and locality. By selling in bags you open the door to frauds in grades, weights, etc., after they have passed out of your control, which is not possible when packed in 25-pound boxes. By selling in bags you lose any advantage in quality your prunes may possess, for in that shape a prune is a prune, and the skins and pits of irrigated districts, raised at one-half the cost of yours, are mixed and sold as California prunes, which may thereby in time sink to the level of Turkish prunes. The sole object of buying in bags is to adulterate with inferior California and foreign prunes, and secondly to soak them with all the water they will hold, that the increased weight may cover cost of boxing in packages that may advertise their business, not ours.

Last year the writer was offered a high price for his entire pack in bags by a French firm, who wished to pack same under French labels, but the offer was declined for that reason only. At least 90 per cent of the product of a first-class orchard should range from 50 to 90 to the pound, and should be carefully packed in 25 pound boxes, under an attractive trademark; the balance may be sold in bags. If your commission merchant cannot sell them in boxes, find one who can, or, if necessary, be your own commission merchant, which the size of your business will warrant. I do not wish to detract from the value of the commission merchants as such; on the contrary, I believe in employing them, and very cheerfully pay the 5 per cent they charge, which includes guaranty of all sales and relieves you of the detail of distribution, which you cannot do for 5 per cent. But let the service end here. When you undertake to make them your bankers, you commit a fatal error. As you value your life, your liberty and your property, don't let any commission merchant own you. Get what advances you need from your banker, and if you cannot, better sell out to some one who can—you will never regret it.

In seeking a market for boxed goods, waste no time on Chicago. You can do better in New York, Boston, or Philadelphia. Go East yourself and become familiar with the wants of your customers by personal contact. One such visit is worth years of correspondence. Don't be in a hurry to ship your fruit in September; such fruit is not cured fruit, and reflects no credit on grower or seller. It should lay in your packing-house several weeks to go through the sweating or equalizing process, and the latter part of October is soon enough to ship, if quality be an object, and if you wish to avoid the danger of rejections which are sure to follow such shipments.

It is argued that our prunes are too sweet; but this is a good fault and really makes them a very economical article, because the consumer in buying his fruit gets the sugar with it. It is a common saying that prunes are the poor man's fruit, owing to the low price at which they are sold; but were it not for the sugar they contain they would be the dearest. Take for instance this year's price—nine cents. One pound soaked and cooked equals three, or say three cents per pound, while one pound of peaches or apricots at 14 cents, or if cooked, seven pounds, equals two cents per pound. Very few, probably have figured this out this way. We find, then, that foreign prunes are inferior to ours, because they are largely propagated from suckers, while we use seedlings; raised on soil worn out a hundred years ago, while ours is practically virgin soil; cured during the rainy season in ovens and driers, cooking same, while ours are dried in the open air by the sun's rays and have to be cooked but once. It is not surprising, therefore, that we have secured the home market, and are likely to retain it, tariff or no tariff.

Now that the election is over, a Republican may be able to state that the tariff is of but secondary importance to the prunegrower without being called a traitor. If the two-cent duty be so vital, how can we consistently explain the columns of reports of $500 to $600 profits realized all over the State? If the duty were removed entirely, which I hope will not occur, we can still make money under proper conditions, if we get but $20 per ton instead of $40 to $60, as has been the case for several years. The California State Board of Trade, through its chairman, Gen. N. P. Chipman, has sent forth the statement that we can raise fruit cheaper in California than any place in the world, and the reasons have just been stated, and, although we have no export trade now, the time may come when we can send our coals to Newcastle, even with the duties levied by France and Turkey, and then let reciprocity take the place of tariff and California will hold her own in the markets of the world and get rich at it.

The greatest danger lies in the continual reckless planting of more trees, when enough—in fact, too many—are already planted. There are about 20,000,000 growing deciduous fruit trees in California of which at least 5,000,000 are prunes, which at the very moderate estimate of 100 pounds per tree, will produce 200,000,000 pounds of dried prunes. Now, what are we to do with them; they are not a luxury, but by no means a necessity; even the growers themselves rarely have them on their tables. Their mildly laxative and slightly acid qualities aid in keeping our system in good order, but only a limited quantity is purchased by any one family, say one 25-pound box to each. The population of the United States during the last decade has averaged 60,000,000. The usual average of five persons to each family will give us 12,000,000, each consuming 25 pounds, or say 300,000,000. But we cannot count on this, because millions of families do not care for and never buy them. What we do absolutely know from the National Bureau of Statistics is that for 20 years prior to the advent of California prunes the total consumption was about 30,000,000 pounds per annum, which, through the popularity of the California prunes, we have increased during the last eight years to 70,000,000 pounds, or a little over one pound per capita. Our population is increasing at the rate of 1 500,000 yearly, which ten years hence would give us say 80,000,000 population and at the same rate require 15,000,000 pounds more, or say 85,000,000 pounds of prunes. But asuming that we so push matters as to quintuple this normal increase, we would then require 145 000,000 pounds, while we now have enough planted to give us 200,000,000 in less than five years. Surely it is time to call a halt in this wild boom and turn our thoughts to other fruits now neglected but equally as profitable. Our only consolation in case of such a glut is that prunes make excellent hog feed, and one acre of prunes will produce more pork than one acre of grain. From the same Bureau of Statistics we learn that the average price of imported prunes for 25 years has been five cents, which, if maintained, would mean to us four cents when the rail freight is reduced to one cent which it will be soon. As already stated, four cents will give us all a very fair bank account, so we have not so much to fear in the way of price if we can stop further planting. Of course thousands of trees that have been improperly planted will die or be abandoned, but they will not offset the additional planting that will certainly continue year after year in spite of statistics. It is said that children and fools always tell the truth. If so, the gray hairs produced by the vicissitudes of the business would indicate to what division the writer belongs. Truer maxims, however, are "Truth is mighty and must prevail," and "Truth crushed to earth will rise again," and though he be crushed beneath the avalanche of land-sellers and tree-sellers, he will lay aside his pen with the consciousness of a duty done and that future conventions in recalling the records of this one will say: "Well done, good and faithful servant."

Olive Culture in California.

Paper read at the meeting of the Southern California Pomological Society, November, 1892, by JOHN S. CALKINS, of Pomona, Cal.

A NEW METHOD OF PROPAGATING THE OLIVE TREE.—In treating of olive culture in California, I will first notice a new method of propagating the trees, which has come into use within a few years, and so far as I know is not practiced outside of this State. I use cuttings of mature wood some three inches long, with two leaves near the top; these are planted during autumn and winter in glass-covered houses provided with bottom heat; a portion of the cuttings will usually produce roots in the course of four to eight months, but often nearly all of them lose their leaves and decay; vigorous trees with excellent roots are grown by this method; trees so raised have produced olives in four years from the time of planting the cuttings in the house; the cuttings in the houses require constant attention, and even the most careful propagators often meet with total loss; probably in no other branch of the nursery business is success so uncertain. The rooted cuttings are planted out in nursery rows from March to December; those planted early in the season attain a growth of one to two feet the first year; trees of this size may be successfully transplanted, and by many are preferred to those of any other age for orchard planting.

TRANSPLANTING AND PRUNING.—In transplanting olive trees from the nursery to the orchard, the roots should be carefully protected from the sun and wind, and the tops, too, as much as possible; the work should not be done when a dry wind is prevailing; they should be taken up in as dormant a condition as possible; they are usually in this state in January and February; if it is not convenient to plant them then they may be taken up before they commence to grow, and heeled in and set out later in the season; at the time of planting, the soil should be settled around the roots with water. The olive tree is very tenacious of life, and may be successfully transplanted at one year of age up to the size of large, bearing trees, this having been often done. Although most varieties are apt to grow unshapely in the nursery, they become symmetrical after being out in the orchard two or three years. As some of the roots are cut off in digging, a portion of the branches should be removed at the time of planting; after that but little pruning will be necessary till they begin to bear. Mr. Goodrich, who has a bearing orchard near Santa Clara, trims his trees in the form of a goblet, the center of the tree well hollowed out to admit the rays of the sun, leaving sufficient wood for the next two year's crops.

THE DISTANCE APART TO PLANT OLIVE TREES.—The distance apart to plant so as to get the best results has been determined by Ellwood Cooper, an experienced olive-grower. He planted an orchard in 1872, 20 feet apart,

but some 15 years after he found it necessary to thin out; he removed every other diagonal row, the remaining trees then being about 28 feet apart; if it is necessary to thin out again, he recommends the removal of every other alternate straight row, the remaining trees will then be 40 feet apart. As he still favors this plan after years of experience, planters may safely follow his example; this appears to be better than to plant the trees farther apart at first with some short-lived trees or vines between them, as is sometimes recommended. The trees which are removed may be reset into a new orchard where they will again come into profitable bearing.

SOIL AND CLIMATE.—As to the kind of soil in which the olive succeeds, the same authority says that "he has trees growing without irrigation in black adobe; on stony hillsides; on adobe hillsides; on table land with clay subsoil; in sandy lands made from the wash of the mountains, with no difference in the bearing of the trees or the oil made." They are known to succeed where peach, apricot and nectarine trees have been destroyed by the black alkali; and also in land so rocky and steep that it cannot be plowed. Our virgin soils of California are rich in lime and potash, two of the chief constituents required by the olive tree. Prof. Hilgard has stated that the substance of olive oil is taken entirely from the air, and that if the crop is made into oil and the pomace and all other offal returned to the land from the outset, it needs no other manure, if the soil is a fairly good one; it does not wear out the soil; but if the fruit is pickled, returns should be made to the soil and then potash and nitrogen are especially called for. The olive tree flourishes under varied climatic conditions; it will withstand a temperature of 14 degrees above zero; it succeeds in the dry interior valleys of the State where the mercury during summer often ranges from 100 to 120 degrees in the shade; along the coast and on the high foothills of our mountain ranges. In Algeria, latitude 35, it thrives at an elevation of 4800 feet above the level of the sea; in Italy at a height of 3200 feet, and there is a bearing orchard in about the latitude of Pomona, situated upward of 3000 feet above the sea.

IRRIGATION.—The olive is a deep-rooted tree flourishing in arid countries, and if properly treated from its first planting, requires but little water in most locations, other than the usual rainfall; there are many bearing trees in different parts of the State that are not irrigated. While there are localities that will give the best results without irrigation, there are, no doubt, other locations that need it, but in most of such lands careful tillage, and in absence of better means, hauling water to them when needed will be time well spent, if the rewards of an olive orchard may thus be secured; but while the trees will do fairly well under conditions in which any other fruit tree would perish, it pays to give them generous culture.

FOR THE STREET.—The olive is coming into favor as a street tree, combining several good qualities outside of its profitableness; it is not apt to be blown down by hard wind storms; it does not litter the ground with fallen leaves; its branches do not droop and obstruct the walk, if properly trimmed; is not subject to have its fruit stolen by persons passing; requires little or no irrigation, and is generally regarded as a very suitable tree for the purpose wherever it has been tested.

INSECT PESTS AND METHODS OF DESTROYING THEM. The only insect pest that infests the olive tree in this part of the State is the black scale, which attacks it in locations near the coast, about the time it begins to bear; it is not infested with it in the interior; even the olive tree is unable to bear a full crop of fruit and a full crop of black scale at the same time; perhaps nothing has retarded the olive industry in this State more than the sorry appearance of the neglected, scale-infested trees in certain sections, which by proper care might have been kept in a profitable condition; any other fruit tree would have been dead and out of sight long ago under the same neglect. Lately improved methods of dealing with the pests have come into use, and they may now be destroyed at comparatively small expense by spraying the trees with the following mixture during autumn, when the insects are all out of their scales: five pounds caustic soda (70 per cent); 25 pounds resin; 3 pints fish oil; boil the soda, resin and oil in 20 gallons of water for three or four hours; when done the mixture should dissolve readily, like milk in water without being ropy; add enough water to make 100 gallons; in case the resin, after cooking, does not cut well, add a little more water. A treatment of the trees with hydrocyanic acid gas in autumn once in two years is also found to be an effective remedy; parties here contract to rid trees of the pests by either method at 20 to 25 cents per tree, furnishing everything. Mr. Goodrich, before alluded to, says his "system of pruning (which he adopted three years ago), and the aid of the twice-stabbed ladybird, has reduced the black scale in his orchard to such a degree as to justify the belief of practical eradication, or at least control." Fruitraisers in California have insect pests to combat, and so have olive-growers located near the coast; happily, by the above methods they may be subdued at a cost so low as to justify the expenditure.

OLIVE OIL AND OLIVE PICKLES.

In the year 1890 there was imported into this country 893 984 gallons of alleged olive oil; this State produced the same year 5202 gallons of pure olive oil, and in the year 1891, 11420 gallons. California olive oil has the distinction of winning prizes at the Paris World's Fair, and its superiority over imported oil is conceded. We have it from reliable authority that at least four-fifths of the olives used in Europe for oil, contain a worm, which is ground up and pressed with the pomace in oil-making. From the Consular reports we learn that it is a common practice abroad to mix cotton-seed oil with the olives while being ground for oil; vast quantities of this oil go to Europe from this country for the purpose of adulterating olive oil; the process of refining cotton-seed oil is said to be such as to render its use as food deleterious to health, and even dangerous to life. The department of agriculture at Washington caused tests to be made of some 66 different brands of imported oil labeled pure olive oil; not one brand was found to be pure, and several did not contain any olive oil; but California producers are determined that the home oil shall be put upon the market pure and unadulterated; to this end they have procured the passage of an act to prevent the manufacture and sale in the State of impure oil, and have organized to aid in its enforcement, and have lately taken measures to have it so amended as to render it more efficient in its operation. Large quantities of foreign pickled olives come to the United States and to this State; they are sold here in small bottles at the rate of about $4 per gallon; they are put up while the olive is green and are unfit for food, while the home olives are put up ripe, or nearly so, and are a wholesome and nutritious food vastly superior to the foreign article. The last crop sold in the stores at $1.20 per gallon; dealers paid the growers from 65 cents to $1 per gallon. They are put up in Pomona by the following method: for six gallons of olives dissolve one pound of G. S. Lewis' concentrated lye in six gallons of water, add four pounds of salt; soak the berries in this mixture two days, then draw off and replace it with same kind for two days longer, drawing the mixture off several times daily, and pouring it over the olives. Now draw off the mixture again and immerse the olives in water from five to eight days, then draw off the water and put on a brine of three pounds of salt to six gallons of water for two days, or until the least trace of lye is removed; finally cover them with new brine of three pounds of salt to 4½ gallons of water.

VARIETIES.—According to an Italian authority there are 300 varieties of olives. I have upward of 50 new varieties in course of propagation in my nurseries; many of these are in bearing in different parts of the State, and have proved valuable acquisitions. By careful observation the different sorts may be distinguished from each other in the nursery by their appearance, which will greatly assist the nurseryman in correctly labeling his trees.

THE OUTLOOK FOR THE OLIVE INDUSTY IN CALIFORNIA

In discussing the profits of fruit-raising it is customary to cite citrus orchards that have returned from $500 to more than $1000 per acre, and deciduous fruit trees that have yielded from $100 to more than $300 per acre in a single year, so we may here give the record of some olive trees:

Ellwood Cooper of Santa Barbara states that he tested one of his orchards seven years old from the cutting which yielded ten large bottles of oil to the tree; $1 per bottle is the present wholesale market price for California oil; this would give $1080 per acre of 108 trees. Frank Kimball of National City, San Diego county, states that he paid a neighbor $200 per acre for his olives from trees less than four years old from the cutting; that he had taken 23 gallons from a tree less than six years old; these, if made into pickles, and sold for 75 cents per gallon, would bring $1863 per acre for that year; that he had picked from a tree, at the old San Diego mission, 192 gallons of olives in a single year; that tree was probably 100 years old. Dr. B. B Briggs of Crescentia, Los Angeles county, has a tree that bore one year, when the tree was 13 years old, 50 gallons of olives; if made into pickles and sold at 75 cents per gallon, they would bring $37 50. Major L. H. Utt of Redlands has an orchard at Pala, San Diego county, of 100 trees that when 16 years old averaged 80 gallons of olives per tree that year. Mr. G. F. Havens of Santa Ana, writes that he has an orchard in Orange county, 15 miles from the coast at an elevation of 1500 feet, planted at the foot of an adobe hill; trees have never been irrigated and have never been infested with black scale; they bore a little fruit the third year from the cutting, the fourth year they bore from one to four gallons per tree. At the age of seven years some of them bore 20 gallons for the year. Thus it will be seen that the trees will show a little fruit the third year from planting, and yield returns the fourth year. The crop will increase from year to year for 30 years, and they will bear up to the age of 100 years. I do not believe the figures given above as the yield of olive trees can be safely relied upon every year, nor that olive orchards in general of like age will come up to those figures one year with another any more than can the amounts given above as the returns of citrus and deciduous orchards be uniformly realized every year, but if the enormous returns of the olive trees mentioned are even divided by four, the results would show the olive industry to be a most profitable one.

There has always been a ready market for all the olives produced here in Pomona. Last year there were more orders sent to this market than could be filled, and orders for the crop of the ensuing season are coming in. Olive-growers in this section have generally prepared their own fruit ready for use, but now there are a number of firms in the field who propose to buy the fruit as it comes from the trees, and prepare it for market. The prospects for a good market in the future are encouraging. The increase in the consumption of California pickled olives in this State within a year or two has been immense. The people are beginning to find out their value, and in the near future they will come into general use. California olive oil is rapidly growing into favor as an article of food and as a medicine, and a heavy demand for it is assured.

The foreign sardine industry is on the wane, owing to the use of impure olive oil and cotton-seed oil in which they are now put up. It may be assumed that the industry will be inaugurated in this State as soon as a supply of olive oil can be had in which to pack them, as our shores teem with sardines of excellent quality.

Considering the superiority of our pickled olives and their cheapness, and the purity of our oil, it is safe to say that they will entirely displace the foreign article in the markets of this country as soon as they are produced in quantity sufficient to supply the demand. While our various fruits are seeking markets in the East, competing with some of the fruits raised there, this State is a large importer of the products of the olive tree, our scanty production as yet hardly making an impression on our local markets.

During my residence in this county, since 1878 I have watched the fruit business from the standpoint of a nurseryman, and have seen it grow from a small beginning to its present large proportions. I know something of the obstacles which have been overcome, and the necessary efforts to secure a market, and it is gratifying to know how much better the business pays with a larger supply and wider markets. The olive is unique in this respect, the output as yet is insufficient to meet the local demand only in a small degree.

Olive culture is in its infancy here, and there is much yet to learn before it is brought to its highest possibilities, but enough is known about it to wrrrant the prediction that it is destined to become one of the most profitable industries of this commmonwealth.

Pruning Fruit Trees.

An essay by FRANKLIN COGSWELL, read at the Santa Ana Farmers' Institute.

My remarks on pruning will apply only to the principal varieties of deciduous fruit trees in southern California.

1.—As to time. If the pruning is severe and the object is to gain a new growth which will develop fruit buds for a crop of fruit the following year, it cannot be done too soon after the crop is off the tree. This can only be done with apricots and early peaches; it is questionable even with them, as the fruit is usually inferior. Best results are obtained by waiting until the tree is fully dormant, but before the sap starts in the spring. Except in the case of large limbs, but few horticulturists take the trouble to protect the cut ends with either wax or paint. But as I intend only to get the matter before you for discussion, I will proceed to the more important point, viz, the manner of pruning.

Much has been said and written about suppressing the scale, the linnets and other enemies of fruit trees; but little has been said about suppressing, in some orchards, their worst enemy—their owners. If this can be done, fruit-raising will be a much greater success. If the said owners could be taken sick during pruning time and their orchards thereby escape the saw and knife, there can be no doubt but the trees would bear enough fruit to pay all doctor bills, and still leave a balance. The object of a fruit tree is, or ought to be, to produce fruit; but many owners keep their orchards so constantly busy trying to repair damages that they have little or no time to bear fruit. It has been my observation that when a tree is severely pruned the remaining fruit-buds, instead of producing large, luscious fruit as we might expect, are most of them blasted, and the whole attention of the tree is turned toward growth. Are trees possessed of intelligence? They seem to be. The remaining parts seem to sympathize with the mutilated members, and refuse to take nourishment away from them for the mere purpose of producing fruit. When a person loses one eye the chief concern of the physician is to save the other eye, which is often lost through sympathy.

2. There is another important point. The orchardist I have in mind wonders why a limb loaded with fruit splits off from the body, if, by some mischance, he has allowed it to produce fruit. Did he ever split wood and come to a knot? If so, he has had trouble. That knot reaches clear into the heart and could never be torn from its mooring, but if the limb which grew from it was cut off close to the tree a sucker sprout comes out to take its place, but is never so firmly joined to the body as the original limb, and is never anything but a sucker limb. Perhaps the worst possible damage is done when the tree is first set out. It has become quite the fashion to destroy all that the tree has done so well in anchoring its limbs in its very heart and leave nothing but a bare stalk two or three feet high.

Mutilated and depressed, some yield up the ghost at once; others make a struggle for existence, put out sucker limbs, joined more or less to the outside of the tree, sure to split off when any great strain comes upon them. This usually comes from wind, if at all, as the owners of such trees seldom give them a chance to load with fruit. I bought some peach trees of a nurseryman. In pruning the lower limbs the year before he had not only cut close to the body but actually in it. There was a swollen limb around the cut, but it had not healed over, neither has the bark grown over it as it should. The best peach orchard in my neighborhood is one where the entire top of the young trees, as they came from the nursery, was let alone. Trim the lower limbs fairly close to the body, but not into it. For two or three years little need be done in pruning. Cut back sparingly, thin out an occasional interfering limb, paying due regard to balance and more attention to gophers which may be gnawing away at the bottom while you are doing the same at the top; cultivate thoroughly, and you will have fruit. I have never known any limb to make two long growths two years in succession. Young prune trees will put out slender limbs 10 feet long in a single season; let them alone. The following season they will branch out, but not grow up too far, but if cut back of course they will put up new shoots and start again, and they and their owners can keep it up in that way for the term of their natural lives, the trees trying to get ready to bear fruit, and the owners to stop it—but the latter being more powerful and having better weapons, often succeed.

CAMPBELL HORTICULTURAL SOCIETY.—This Society meets at Campbell, Santa Clara County, on the second Saturday night of each month. At the last meeting officers were elected for the ensuing year, as follows: F. M. Righter, president; Jos. Bohnott, vice-president; S. G. Rodock, secretary; Dr. C. N. Cooper, treasurer.

CALIFORNIA NURSERY COMPANY.—This well-known establishment at Niles, under the management of John Rock, has just issued its new price list No. 3, including fruit and ornamental trees, small fruits, roses, etc. The lists in all of these classes are very complete, and will gratify planters. Among ornamentals the California Nursery Company pays special attention to roses, and has the largest area devoted to them of all our coast growers. In orchard fruits of course, the selection is large and of high standing.

FRUIT vs. WHEAT.

A Discussion of the Relative Importance of Wheat-Growing and Fruit-Growing in California.

The following paper was read before the State Horticultural Convention at San Jose by Gen. N. P. Chipman of Red Bluff, Cal.:

At your annual convention held at Chico, in November, 1888, I read a paper entitled "Wheat vs. Fruit," in which I undertook to point out to the California agriculturist the increasing importance of fruit-growing in this State, and why we should grow more fruit and less wheat. I am now requested to reexamine the relative importance of the two industries in the light of later experience and more complete data. Whether we narrow the question to the simple inquiry as to which is the more profitable on a given number of acres, or take the broader view as to their relative influence on the future greatness and prosperity of the State, I think we shall easily reach the conclusion for which intelligent horticulturists of California have long contended.

The evolution of California has presented a series of surprises from the day when Marshall turned up the glittering nuggets in Sutter's mill-race and set the world ablaze with his discovery of gold. The growing of the cereals, and later of fruits, was as much a discovery as the finding of gold; and people were even more incredulous about the practicability and profitableness of tilling the soil than they were about making quick fortunes with the pick and shovel and rocker in the mountain gorges. Here and there, however, in the north and in the south, in the early forties, were to be found unmistakable evidences of what our climate and soil would do; but our people seemed not to admit the logic of facts or their own senses, and so they went on for years importing flour from Boston and New York, and fruits from Mexico and the islands of the sea.

Wheat-growing took root at last in the fifties, but our eyes were not really opened to the possibilities of fruit-growing until the profound movement began which has made southern California a veritable Eden, and has incidentally uncovered new and untold wealth in the north in her fruit products. We had a surpassingly favorable climate, but we did not know its commercial value, nor its true relation to the soil. And we are still unwilling to subject these two combined forces to their highest uses, as we evidence by keeping right on planting wheat that can be better grown in the icy regions of the Northwest; and we do this in face of the fact that we send 70 or 80 per cent of it 15,000 miles to market, in competition with the whole world, and especially with our brothers of the Northwest, who only need to seek a foreign market for about 20 or 25 per cent. And, withal, California only exports about one-tenth of our total exports.

DIVERSIFICATION A NECESSITY.

I hold it to be a perversion of nature's gifts to use them contrary to their obviously higher and better purposes. In the old agricultural countries the farmer makes a careful study of the adaptability of soil and climate to the growth of particular products. He selects his land for wheat, for corn, for oats, for barley, rye, grasses, and he rotates these crops as necessity requires. He plants the fruits and vegetables suitable to the climate and soil, and if he is intelligent he always plants that which promises the highest returns. If he is in Dakota he plants wheat; if in Kansas or Iowa, corn and wheat; if in North Carolina, rice and cotton; if in Louisiana, sugar-cane; in France he grows prunes; in Spain, raisins, and in Italy, olives. He diversifies largely everywhere, but his staple is determined by the conditions of soil and climate.

Now, no one in the face of the facts will say that California is peculiarly adapted to wheat-growing. A study of the productiveness of the wheat-growing regions of the Union will show that many States produce more to the acre than we do. The average gross yield per acre of wheat in California is less than 13 bushels, of the value of $12.34 per acre, which was the result obtained in 1891—one of our best years.

VALUE OF WHEAT LANDS.

The average value of our best wheat land is not less than $50. When we deduct from the gross product the cost of production, we have left less than an average of $2.50 per annum per acre, out of which must be paid taxes and the repairs of implements and the farm kept up. Now, this is a summer-fallow crop of which we get one in two years, and an added occasional winter crop once in three years. In exceptional cases, much better returns are shown; but we must deal with general rather than exceptional results with wheat, as with fruit. I am authorized to say to you by one of the best farmers in this State, who owns one of our best and largest wheat ranches, that his wheat land does not pay over five per cent per annum on the assessed value of $50 per acre for the land.

I pointed out to you four years ago some of the disadvantages of wheat-growing in California. Let me restate some of them briefly, with one or two added: We have a much smaller home market than our competitors in the wheat-growing States east of the Rocky mountains. The United States exports about 25 per cent of all wheat grown; California exports fully 75 per cent of her wheat. Our surplus travels farther to market, and hence at greater cost, than any other wheat grown, except that of Oregon and Washington. We have no one advantage over our competitors to compensate this disadvantage. The water rates on wheat from Chicago to Liverpool are about $3 50 per ton. The average rates for a period of years from San Francisco to Liverpool will not vary much from $10 per ton. Assuming that the cost to Lake ports is about the same as to San Francisco from the farm, we have a difference in favor of the wheat-grower of the West on his exported wheat of over $6 per ton, or nearly 20 cents a bushel. But the wheat-farmer near the centers of consumption gets a home-market price larger than the export price, while our home price is the Liverpool price less cost of carriage.

THE WHEAT AREA UNLIMITED.

The *California Fruit Grower*, one of the ablest trade and fruit journals in the State, recently pointed out, and fully proved, the statement that the wheat area of the United States can be expanded to meet any probable requirements for many years. It demonstrated what I have verified by examination of the reports of the Bureau of Statistics, that many of our western States have curtailed their wheat acreage and devoted it to corn and other products found to be more profitable; but they can easily shift to wheat when required. For example, Iowa had in 1891 in wheat 1,800,000 acres, while in 1875 she had 3,000,000 acres; Illinois had 3 600,000 acres planted in 1880, and only 1,900,000 in 1891. On the other hand, the capacity to rapidly increase production of wheat is shown in Kansas, where the acreage in 1891 ran up to 3,500,000, as against 1,600,000 in 1889, and 2,000,000 acres in 1890; the Dakotas have increased steadily from 1,000,000 acres in 1883 to 4,800,000 acres in 1891.

I see no evidence of a decrease of wheat areas either in the United States or in competing foreign countries, so that the wheat-grower need not look for better prices through any falling off in production, save in years of crop failures, unless the land is given over to other cereals, which is not likely to happen; and if it should happen, it can be given back to wheat when needed.

MORE WHEAT PER CAPITA THAN EVER.

Mr. J. R. Dodge, Statistician of the Agricultural Department, in the report of that department for 1891, has furnished valuable facts and opinions resulting from his researches. In speaking of wheat, he calls attention to the fact that the population of the country is between three and four times as large as in 1840; the wheat crop of 1891 was seven times as large as in 1840, or four and one-third bushels for each unit of population then, and nine and one-fifth bushels now. He says further:

"There has been much written for 20 years past, the result of crude generalizing from agricultural data, to the effect that wheat-growing is declining, moving westward, abandoned in the old States and precociously developing in the new. * * * A little thoughtful review of the whole field of fact will show the kaleidescopic changes incident to the work of diversifying and moulding our primitive agriculture. Western New York produces as much wheat as ever, and fruit and vegetable and other products of tenfold greater aggregate value. So do Ohio and Michigan."

He then shows how the yield of wheat may be largely increased by better methods; he cites the larger yields in the sands of Holland and the gravelly clays of England, and says that if our better soil were brought to the average yield of those countries, we would produce on the same area as we now plant a thousand million bushels. He then takes up the question of reserve and shows that the tendency is to underestimate; that the surplus of two or three years, held in remote regions not easy of access—in Russia and India and elsewhere—have been collected through improved commercial facilities and poured into the centers of trade, to the surprise of both consumers and producers, to the equalization of prices and the maintaining of relatively low rates throughout the world.

SINGLE CROPS RESPONSIBLE.

In speaking of the depressed prices, he refers the condition to the baneful influence of the single-crop idea.

Upon the question of the permanency of agricultural production, he presents some striking and valuable facts. He points out that Europe, with four times our population, produces nearly enough subsistence for its own use; that all eastern Europe has a surplus, and that Italy's exports equal her imports; that the Netherlands, with only two and one-half acres to each inhabitant, require only a few million dollars worth of agricultural imports in excess of agricultural exports; that France, with a population nine times as dense as ours, requires only about seven per cent of her consumption; that even insular and factory-studded Great Britain feeds half her population from her own soil, through the labor of one-eighth of her population, and the other half could be fed if the game preserves and pleasure grounds were utilized for agriculture; that it requires four times as much area here to feed one person as it does there, which it would be absurd to claim as a necessity.

He then shows by incontestable proofs, that even in the States east of the Mississippi river land actually farmed is only partially utilized.

Upon the question of surplus he shows how easily possible it is to largely increase the output as the markets may demand, and that our wheat possibility is one of price and profit, and not of land and labor. He then submits tables to show that wheat-growing in Europe is not declining. In his conclusions upon the subject he says:

"This country has not reached the limit of agricultural production; it has not even approached it. It is not true that the wheat of the world is declining. It is not difficult to prove the existence of 2,300,000,000 bushels as an average, and there is no prospect of decrease.

"The United States will continue to produce a surplus for export until the wheat culture of the United States shall have given place to more varied and profitable culture, and increasing numbers of non-agricultural population shall require for breadstuffs the entire crop." He adds:

"It is proper to say that the tendency is toward a better distribution of crops and to higher prices and better profits. The proportion of agricultural labor will decrease, nonagricultural labor will increase, agricultural products will be more varied, rural intelligence and skill will advance, and the farmer will be in a better position to demand and secure an equitable share in the net proceeds of national industries."

If there is one lingering doubt in the mind of a California farmer, after reading carefully the report of the Department of Agriculture for 1891, as to the plain path for him, I confess inability to reason from known data.

SMALL WHEAT FARMERS DRIVEN TO THE WALL.

It has come to pass in California that the more prosperous wheatgrower must own or till large areas, and use steam and horse-power, and dispense with men. The combined harvester has reversed the law of labor-saving machinery and is depopulating the State. It came at the wrong time for California, and proved a boon to the large land-holder, but a bane to the State.

I showed you, in my former discussion of the subject, by incontestable evidence, that our wheat lands are not yielding so much per acre as they formerly did, and the four years have added strength to that point; that prices have gradually declined, while rates of transportation do not decline to meet the fall in prices, and this point still stands good; that the price is not likely to come back to former figures, because of the large wheat areas of the globe; that wheat-growing cannot populate the State or increase its prestige and importance or add to its wealth, and this point is more than verified by the fact that our wheat-growing regions are still sparsely settled; that we have reached the maximum of production; that many lands devoted to wheat are not profitable by reason of nonadaptability to that plant; and that much of the lands in wheat are specially adapted to fruit, and others are not, and should continue to be planted to wheat.

I showed that an intelligent application of ordinary sound judgment, in the light of facts everywhere apparent, should lead our farmers to devote their lands to wheat culture only where more profitable crops could not be grown, and that our output of other crops should be increased and our wheat brought down to the necessities of our home market and those markets that can be reached with profit. I must be permitted to refer to the arguments then made and facts adduced, rather than to repeat them here.

NOT WHAT IT USED TO BE.

I need not encumber this paper with further additional proofs to show that wheat-growing is not what it once was here, and that it is no longer an attraction to the home-seeker of the East who is looking toward California. We cannot sell our lands for wheat-growing, at their true value, to western wheatgrowers, who would have to exchange two or three acres for one, and leave more favorable conditions than exist here for their pursuit. We who believe in fruit talked to deaf ears when the farmer was getting two cents a pound for his wheat and was growing 25 bushels or more to the acre. Now, however, we ask him to look at his ledger and see if he cannot do better. He bought his land for five to twenty dollars per acre. Our fruit industry has given it high value, and we want him to yield up his rich acres to the demand for higher and better uses.

President Andrews, of Brown University, says, in the *North American Review* for November: "Only about one-sixth of the cultivable land of the globe is yet occupied."

Let our wheatgrower remember that whea is the product of all lands and climes. Wherever man can live wheat will grow. Not so of the orange, the lemon, the fig, the prune, the olive, the raisin grape, the almond, the apricot, or even the pear or the peach—all distinctively California fruits. France obtains 25 per cent more wheat to the acre than we do, and English farmers obtain more than twice as much as we do. France reports 110,000,000 hectolitres, or over 300,000,000 bushels, grown this year, which is about three-fifths as much as the entire crop of the United States.

SOMETHING WRONG IN FARMING.

It is not my province to criticise our methods, but there is something wrong in our farming, when France, with an area only about one-fourth larger than that of California, can, with all her other products, turn out three-fifths as much wheat as the entire United States. It looks as though we were misusing the term *poor* when we talk about the *poor* farmer. We use it as an adjective of commisseration when it should properly apply to him as adjective of reprobation. They have been growing wheat in France and England for centuries, and the land does not give out for the reason that it is well farmed and kept replenished. We grow wheat till we exhaust the soil, and then move to a new region. I have a wheat-growing neighbor who the other day sold a thousand loads of manure for ten cents a wagonload—the accumulation of years—and yet he told me, with tears in his eyes, that he would have to sell out because his land would not raise wheat like it used to. I need hardly add that it was an intelligent orchardist who bought the manure.

The point remains that we have in the United States the fertility of soil, with good farming, to immensely increase our yield of wheat whenever it is needed.

OUR SUPERIOR CLIMATE AND SOIL.

What is it that gives value to California land? It is not richness of soil alone, for Kansas and the great Northwest have the fattest land in the world. It is not in the profitableness of our cereal crops, for our grain farmers will testify that they are not making money. What then is it? It is the adaptability of climate and soil to the production of the most profitable fruits of the earth.

But California is not to be built up by her climate alone, for mankind cannot exist on climate. The State is not to be built up by the richness of soil alone, for men will not go thousands of miles and pay more for land than equally fertile will cost near home.

The solution of California's future greatness lies in the success of the efforts which this State Horticultural Society has been so patrioticaliy making for the past ten or fifteen years. The day will come when all Californians will honor above all others the men who founded this society and who have so faithfully promoted the growth of horticulture through its efforts.

CALIFORNIA'S EXTENSIVE CAPABILITIES.

And this brings me to the easy and pleasing duty of showing what has lifted California to her high plane of promise, and why California to-day offers such unexampled inducements to the home-seeker, and why fruit is more profitable than wheat.

For nearly or quite 700 hundred miles, from Shasta to San Diego, and wherever the elevation is not greater than 1500 feet (and in places even 2500) lies a great empire, with all the gifts of nature that the Giver of all good has so bountifully bestowed upon France, Italy and Spain. The

lines of equal temperature that sixteen years of daily official observations of the Signal Service Bureau, and later the Weather Bureau of the United States, have traced upon the map, are incontestable records of our wonderful climate. The line marking 35 deg. above zero, minimum temperature of the year, starts on the Pacific Coast near Cape Mendocino, and runs through the valleys, near Los Angeles, down to San Diego, and disappears in Mexico and emerges on the Atlantic coast, at Cedar Keys, Florida, 600 miles farther south than where it started.

The zero line starts on the Atlantic coast, near New Haven, Conn., runs through St. Louis, Santa Fe, Prescott, Arizona, and then turns north and enters British Columbia east of Spokane, in Washington.

The lines of 5 deg., 10 deg., 15 deg., and even 20 deg. above zero, starting at various points on the Atlantic, from about Sandy Hook down to Hatteras, run across the continent and into British Columbia, without reaching any of our low altitude valleys from Shasta to San Diego. The minimum line of 25 deg. above zero passes east of Red Bluff, a little east of Visalia and Riverside, runs into Mexico, and appears again at Wilmington, N. C.

While we are pruning, planting and working in our orchards and putting in our winter-sown grain in January, the thermometer marks 14 deg. below zero in Chicago, 31 deg. below at St. Paul and 39 deg. below at Bismarck, Dakota. While we are shipping our late green fruits in November, the thermometer is playing with zero at the points named in the West.

These are striking differences, and they are what give the high value to California homes and California agriculture.

INCREDIBLE RANGE OF PRODUCTS.

The region to which I have referred, lying west of the Sierras, embraces 20,000,000 acres, where may be grown every product known to the map of all Europe. The range of products that lies between the date palm and the hardy apple is prodigious. It exists nowhere in any one country on God's footstool except in California; within that range lies greater wealth than it has yet entered into our minds to conceive.

WEALTH IN OLIVES.

Consider that precious fruit, the olive. The most accomplished agronomists accord to California all the favorable conditions existing in Italy for the growth of this valuable fruit.

Italy produces annually 70,000,000 gallons of olive oil. The market value of this oil, in Italy, is not less than $120,000,000, and that is more money than the value of all the wheat exports of the United States for 1891.

The precocity and fecundity of California soil and climate are exhibited in the olive. I am told that it takes 10 or 15 years to bring the olive into profitable bearing in Italy. Our distinguished president, Mr. Elwood Cooper, obtains ten bottles of oil from seven-year old trees, and every bottle worth a dollar.

So wise and far-seeing a man as the senior Senator from California is quoted as saying that olive culture has been killed by the substitution of cotton-seed oil for the genuine article. I must doubt the authority of any one to commit Governor Stanford to that statement. I would as soon expect the opinion from him that oleomargarine would kill the dairy business, or that effervescing cider would displace champagne. We eat the cotton-seed oil because we cannot get pure olive oil, and not because of its cheapness or because it is satisfactory. When our olive orchards are able to supply the demand, and we compel the cotton-seed oil to put on the brand of its ignoble origin and take off the lie which sells it, we shall see very few people dressing salads with the spurious article.

The possibilities of the olive in California are little appreciated. So much is already known of our citrus and our deciduous fruits that I must be pardoned if I emphasize the importance of greater attention to the olive.

Happily we have the highest and most conclusive evidence in the archives of our society, albeit they have been overlooked in the mass of other valuable matter that enriches our annual reports. When the olive was under discussion at one of your conventions (see report of 1887–8), Mr. Elwood Cooper took the witness stand. His testimony will be accepted with the same faith that would be accorded to the evidence of our most eminent citizen. I quote:

"I have growing on my place olive trees in the black adobe, in deep bottom land, in sandy land made from the wash of the mountains, in stony hillsides and adobe hillsides, and in table land where the subsoil is probably 20 feet deep, dark clay; and, so far as I have known, there is no difference in the bearing of these trees or in the oil made." As to quantity produced, he says: "The only test I have ever made as to the quantities borne by an orchard—that is, taking all the trees—showed 122 pounds of olives throughout the orchard—large trees and small—seven years old *from the cuttings*. The best results in making oil has been 10½ pounds in one large bottle; the poorest result was 12½ pounds. We have for the tree seven years old at least ten bottles of oil; and those bottles will sell readily anywhere and everywhere at one dollar apiece. I was compelled to put up the price to two dollars—$24 a case—to keep my customers from quarreling about it; and I am sorry to say they quarreled about it just the same. As soon as I have enough I shall put it back to $12 a case. One dollar for a large bottle of oil is profit enough for an olive orchard."

At the convention held at Chico the Hon. Chas. Dondero, of San Francisco, a consular representative of Italy, presented a most valuable paper upon the subject. He was born among olive groves, and brought with him to his new home a love for this precious tree, amounting almost to adoration. I quote from his admirable and exhaustive address before the Chico Horticultural Convention, November 22, 1888. He says:

"There are no two countries in the world so similar in topographical conformation, position, climate and agricultural products as Italy and California. The olive is justly considered the Providence of Italy. It was undoubtedly cultivated there before Cassandra's prediction on the fate of Troy—before Homer had immortalized the wrath of Achilles. According to history, the great olive trees yet seen around Tivoli, whose gigantic forms rival the majestic sequoias of the Sierra, were already old when Romulus traced with a plow the walls of Rome. Since then mighty rulers, powerful empires, bright and barbarous civilizations, have arisen and disappeared; but the olive giants, untouched by all vandalic invaders, respected by hurricanes of 30 centuries, are there, covering nearly an acre of ground each, vigorous and productive as in the days of Christ. The average duration of this tree, however, is considered 250 years—long enough for us all! Its production increases until the age of 40 or 50. It remains then about the same from year to year, if properly managed, with a perceptible improvement in the quality of the oil.

"Italy," he says, "produces more olive oil than all other countries combined; France, 1,250,000 gallons; Portugal, Algeria, Tripoli, Egypt, Greece, Dalmatia and some other countries, 18,000,000; Spain, 15,000,000; Italy, 70,000,000 gallons."

THE OLIVE IN ITALY.

Speaking of Italy, Mr. Dondero says:

"An olive-grove in that country constitutes the luxury of the wealthy, the resource of the poor, the blessing of all. Polenta (a cornmeal mush) with olive oil and wine is the most substantial noon meal of millions of hard-working Italians. It is due to the providential olive oil that Italy never had to suffer during the appalling pestilences and barbarous invasions of the Dark Ages, or at any other ancient or modern period, such fearful famines as other countries had. Garibaldi and his fearless followers would not have won the desperate battle of Milazzo, and broken the chains of tyranny to eleven millions of people, if the providential oil had not saved them from starvation. It lingers yet in my memory a saying of my grandmother, at the time when the rapacious legions of the first Napoleon on one side, and the cruel Austrian hordes on the other, were desolating her home and olive plantation: 'Children, as long as we have in the wall-pit a sack of bran and a jar of oil, God is with us and our country.'"

It is difficult to conceive how great would be the increase of wealth to our State by the cultivation of this fruit alone. Assuming Mr. Cooper's results to be obtainable, one acre out of every 500 acres adapted to olive culture in this State would produce more in value than all our wheat exports.

VALUE OF THE ORANGE.

How long is it since we found commercial value in the orange? It seems but yesterday; and yet southern California has been enriched by the discovery. In 1891 they received $1,796,000 for oranges alone, and this from a comparatively small acreage. Riverside shipped 15 carloads in 1880 81, and in 1889 90 she shipped 1500 carloads. Both olives and oranges are now grown in commercial quantities at points 600 miles apart north and south. In Tehama and Butte counties—latitude corresponding with New York City; and in San Diego—in latitude corresponding with Charleston, South Carolina—these fruits are found. Practically, parallels of latitude are nonexistent, as indicating temperature.

RAISINS AND PRUNES.

Our raisin and prune industries are examples of what may be done in California fruit-growing. The rapid growth and development of Fresno county is directly traceable to the raisin. In 1880 her population was 9478; in 1890 it was 32,026. In 1880 Fresno City had a population of 1112; in 1890 it had increased to 10,818, or 872 per cent. Fruit-growing did this. Would this magic-like transformation have happened if fruit trees and vines had not been planted? Would this all have happened if fruit-growing had not been profitable? Fresno is an interior city about ten hours by cars from San Francisco, and has no water communication. There was nothing especially attractive in soil or climate above a hundred other places in northern California. Nothing but the logic of rich rewards to the horticulturist gave Fresno her prestige, and nothing now can ever rob her of it. Her destiny is assured. But this is only a type of California's productiveness to be found elsewhere in the State.

After the fruit crop of 1890 had all gone into market, I undertook to verify the belief of fruitgrowers that their exports equaled in value the exports of wheat. The claim was ridiculed as preposterous. The wheatgrower felt himself aggrieved and his occupation belittled. He never stopped to think that we had gone along with our pottering business without taking away his wheatlands from him, and had added wealth to the State without taking away a dollar, and that he could afford to be just to us if he did pity our folly.

And so I set about gathering the facts which I afterward embodied in a detailed report to the State Board of Trade. The result was an unexpected victory for fruit, and showed that our fruit and wine exports for that year reached $19,857,826, while wheat and flour exports fell short $530,660.

ENORMOUS VALUE OF FRUIT PRODUCTS.

It is due to the completeness of our records that the comparison should be given in this paper. It is as follows:

Green deciduous fruits, 69,084,124 lbs, at 2½c	$1,702,103
Dried deciduous fruits, 64,535,181 lbs, at 12½c	8,074,397
Raisins, 41,120,333 lbs, at 6¼c	2,570,020
Nuts, 1,574,230 lbs, at 10c	157,423
Canned fruits, 80,121,850 lbs, at 3c	2,403,658
Oranges, 1,028,700 boxes at $1 75	1,796,025
Grapes, in wine, 18,000,000 gallons at 15c	2,700,000
Grapes, in brandy, 1,000,000 gallons at 45c	450,000
Total values	$19 857,826
Wheat exports: Wheat, 21,699,683 bushels; Flour, 5,910,565 bushels of wheat. Total, 27,610,238 bushels at 70c	$19,327,166
Excess value of fruit	$ 530,660

Let us turn back a decade. In 1880 we exported 3,141,500 pounds of green fruit and 412,480 pounds of dried fruit, besides our raisins and canned fruit. Little wonder is it that that the contemptuous beginning of 1880 had moved the wheatgrowers to pity for the misguided fruitgrower. And yet in ten years we added twenty millions of dollars annually to the wealth of the State, without diminishing the possibilities of wheat-growing by so much as a bushel. Indeed, our wheat output for 1891 has never been but once before equaled.

NORTHERN AND SOUTHERN PRODUCTS.

In that same report was another instructive table that deserves an incidental place in our records. It shows what part of that fruit went from northern California and what from the south. It is as follows:

North.	
Dried, 38,524,900 lbs	$4,815,613
Green, 67,030 834 lbs	1,672.771
Raisins, 25,595,330 lbs	1,599,705
Canned, 77,413,020 lbs	2,322,390
Nuts, 356,510 lbs	35,651
Oranges	4,200
Wine, 16,000,000 gals	2,400,000
Brandy, 800,000 gals	360,000
Total, North	$13,213,333
South.	
Dried, 26,027,281 lbs	$3,258,785
Green, 1,053,290 lbs	26,332
Raisins, 15,525,000 lbs	970,312
Canned, 2,708,930 lbs	81,267
Nuts, 1,217,730 lbs	121,772
Oranges	1,796,025
Wine, 2,000,000 gals	300,000
Brandy, 200,000 gals	70,000
Total, South	$6,644,493

DIFFERENCES IN THE REGIONS.

Some deductions drawn are worthy of repetition.

"It will be noted that green deciduous fruits are nearly all shipped from the north; that shipments of dried fruit from the north exceed those from the south over eleven million pounds; that five-eighths of the raisins go from the north; that nearly all the canned goods go from the north; that of the wine and brandy, eight-ninths go from the north; that nearly all the nuts, and, practically, all the oranges, go from the south. It will also be noted that the green deciduous fruits exported from the State about equal the value of oranges; that the dried fruits are more than four times the value of oranges; that our raisins have a value of nearly one million dollars more than oranges, and our canned goods more than half a million more than oranges; that our wines and brandies have a value to the producer of one and a quarter million dollars more than oranges. Also, that the exports of deciduous fruits and nuts exceed exports of oranges by seventeen millions of dollars. It will also be noted that the value of the dried fruit shipped from the south is about double the value of her oranges; that the raisins of the south equal half the value of the oranges, and that the orange crop of the south is only about one-fourth in value of her whole fruit crop."

I have tried by every mental process at my command, and on many occasions, to emphasize and make clear the great value and attractions of our developed fruit regions. I never weary of this effort, for I feel my conscience as clear in helping to establish new homes in California as the most zealous missionary ever felt in leading the benighted heathen into the New Jerusalem.

The one thing that I cannot understand is, that we have not five million population, instead of one and a quarter million.

VALUE OF SANTA CLARA VALLEY.

Did you ever try to figure out what the Santa Clara valley would sell for, if it could be picked up and set down with all its advantages of climate and soil, as we know them, within, say, one hundred miles of the city of Chicago? The Happy Valley of Rasselas, the Vale of Cashmere, the home of the Peri, and all the other poetic conceptions of all the centuries, have never pictured anything more charming or more valuable than that would be. Every acre would be worth a small fortune. And yet I can conduct you to a hundred places in northern California equally attractive, where the owners are blindly misusing the soil and squeezing out the last remaining elements of fertility to grow a crop that barely pays cost of production. To my mind it is not less senseless than would be the miner who would clean up his sluice-boxes and save the pebbles and let the gold go down the gulch.

If you agree with me that the beautiful Santa Clara valley set down in Illinois would have incalculable value, tell me why it has not approximately that same value here, only four days' ride from Chicago?

WORTH $1000 AN ACRE.

If Mr. A. T. Hatch's Suisun orchard could be set down in Iowa, with all its delightful surroundings and all its exuberance and wealth of fruits, would anybody hesitate to pay $1000 an acre for it? Can you give me a satisfactory reason why it may not be nearly as valuable here—not for wheat-growing, but for prunes and peaches and almonds and pears; in short, for California fruits?

FRUIT-GROWING SUPREME.

I am endeavoring not to depart from my purpose, which is to exalt fruit-growing to its well-earned supremacy. If I appear to diverge, it will be seen that it is only to give you a fresh view point. What the fruit-grower has unselfishly labored for in all these years has been, and is, to build up a great and powerful commonwealth, by planting industrious families on many of these unpopulated, monotonous, dreary and unprofitable wheat-fields and waste places, and convince their owners that when the Creator selected California as the only place on His footstool where every fruit of every zone might be grown, He intended that we should supply the wants of the teeming millions who were to dwell on the American continent, and He did not mean that these matchless gifts were to be prostituted to ignoble and profitless uses.

FRUIT VERSUS WHEAT.

The RURAL PRESS, one of the most watchful guardians of our agricultural and fruit interests, in a recent issue endeavored to console the wheatgrower with the hope of getting $1.50 for his wheat if he would hold a little longer, basing the argument upon the narrow margin of reserves now in store. That very able financier and public-spirited citizen, Mr. Albert Montpelier was called to the witness stand to support the hypothesis. I hope they are right, and I wish the wheatgrower could get $2 for his wheat. But would Professor Wickson or Mr. Montpelier counsel wheat growing as against fruit-growing in California? Certainly not; and for the obvious reason that they both fully realize how vastly more important and more profitable fruit-growing is than wheat-growing.

Indeed, it may be conceded that wheat may be grown here at a profit, but the fact remains that fruit is more profitable than wheat can possibly be under any conceivable conditions.

But what evidences have we that these twenty millions of dollars received from fruit

in 1890 produced more profit to the fruitgrower than the wheatgrower got for his wheat, and what evidence that fruit-growing is doing what we claim for the State?

There are many ways to prove this. One very effective means is to take localities where fruit-growing has become a leading industry and compare them with those localities where the change to fruit has not become marked.

I need not refer to all the counties where the evidence exists; a few will serve the purpose. The proof rests upon the concurrence of two facts; namely, increase in assessed valuation and increase in the population.

I will take five counties in which fruitgrowing is a distinctive feature.

County.	Pop. 1880.	Pop. 1890.	Ass. Val. 1880.	Ass. Val. 1890.
Los Angeles	33,381	101,454	$16,368,649	$39,475,025
San Bernardino	7,[illegible]86	25,497	2,676,973	22,410,440
San Diego	8,818	34,987	3,525,258	30,118,503
Fresno	9,478	32,026	6,354,596	36,110,343
Santa Clara	35,039	48,005	27,603,240	53,193,579

In population Los Angeles gained 203 per cent; San Bernardino, 227 per cent; San Diego, 305 per cent; Fresno, 237 per cent; and Santa Clara, 37 per cent; and the increase in valuation ran along *pari passu*.

Now, let us consider four wheat counties.

Cou ty.	Pop. 1880.	Pop. 1890.	Ass. Val. 1880.	Ass. Val. 1890.
Colusa	13,118	14,640	$12,440,380	$20,659,809
Butte	18,721	17,939	10,743 426	15,839 385
Tehama	9,301	9,916	4,199,998	9,121,975
San Joaquin	24,349	28,629	17,377,129	32,080,117

Colusa gained in population 11 per cent; Butte lost; Tehama gained six per cent; and San Joaquin gained 17 per cent.

WHEAT A POOR ATTRACTION.

It is the proud boast of Colusa that she is the largest wheat-producing county in the world. She has gained 1522 people in ten years. But what profiteth it the State that she has broad acres of wheat and no growth of population?

Compare San Joaquin and Fresno. The former is a great wheat-growing county, and has not yet developed fruit distinctively. Fresno raises a large amount of wheat also, but has developed fruit largely. Of the two counties, San Joaquin is the more favorably situated as to transportation facilities, and in all respects is equal to Fresno, and they lie near each other with much the same conditions of soil and climate.

Fresno has increased 230 per cent in population, and San Joaquin only 17 per cent. San Joaquin has added less than 4000 population in ten years, while Fresno has added over 22,000.

If you will study the drift of population in the valley regions of the State, you will find it has gone to the fruit-growing counties almost entirely; and thus confirms what we say, that fruit and not wheat is to build up California.

I take no pleasure in pointing out to you another remarkable contrast between these two imperial counties. But we are after the truth, and often nothing but the truth will awaken and must be spoken however unpleasant.

SAN JOAQUIN COUNTY.

San Joaquin county in 1880 had residing in towns and in the city of Stockton 11,822 inhabitants. In 1890 she had increased her urban population to 17,730 inhabitants, a gain of 5908.

The total gain in ten years for the whole county was 4280, which is 1628 less than the gain in the towns and cities; and this means that there is an actual loss of rural population of 1628 in ten years, when there ought to have been a gain, and would have been, in my belief, a gain of eight or ten thousand if water had been brought on to the parched wheatfields, and the land surrendered in greater part to fruit. Stockton alone has received four-fifths of this gain, and is a lusty and very promising city, but how much stronger it would be with ten thousand more people pouring their wealth into her coffers.

Now, turn to Fresno county. In 1880 there resided in the towns 1417 inhabitants. In 1890 they had increased to 13,635—a gain of 12,218. The total gain in ten years for the whole county was 22,548, which is 10,330 more than the gain in the towns, and this means 10,330 added to the rural population. Fresno added in ten years to her rural population more people than were in the county in 1880, while San Joaquin went back and lost 1628.

Precisely the same thing has happened in Colusa and Butte and Tehama and other counties where wheat is the staple; the rural population has fallen off.

This emphasizes in the strongest possible manner the point I am making, and should awaken the solicitude of our people.

IF NOT FRUIT, THEN BABIES, ETC.

I must not be blamed for this diagnosis. I may be wrong in my remedy, but I am right as to the disease. Let me say to San Joaquin in all truth and soberness, as I am constantly saying to my own county, there is something wrong. Your broad, rich and beautiful acres should have more people instead of less after ten years that have added nearly forty per cent increase to the rest of the State. If you won't take our advice and plant more fruit, at least try and raise more babies.

But I am not through with the wheatgrower. It will be observed as a mark of prosperity among fruitgrowers, compared with the conditions present among many of the wheat-ranches, that an atmosphere of thrift and comfort and even luxury surrounds the orchard regions, while the wheatgrower is content with the same roof that sheltered him twenty years ago, and his hired men continue to roost in the hay-mows or migrate after the harvest and disappear with the meadow larks to reappear from God knows where the following season.

LAZY MEN NEED NOT APPLY.

A slothful, or lazy, or unambitious man, has no business with an orchard. He must be observant, industrious, intelligent, a reading man, and he must have to some extent the mercantile faculty. The wheatgrower cannot make his market; it is made for him. The fruitgrower can make his market, by superior cultivation and care of his orchard and handling his product. His calling develops his higher faculties and makes him a superior citizen.

Again, the products of the orchard will bear all rail transportation to the centers of consumption, while wheat can go only by water. Our fruit may be shipped green or dried, and still yield profit, and it is a question in which form it is the more profitable. We thus have the markets of the world, while our wheat has but one point of consignment, and that 15,000 miles away. Our green and dried fruit may now be placed in Liverpool in 15 days, while our wheat takes four months; and the farmer must bear all the cost of this delay in reaching the consumer. And this item alone means half a year's interest on all his crop. Again, there is more certainty in the fruit crop than in the wheat crop, while prices are at least equally stable. Again, a family can be well-supported on ten acres of fruit, and upon less invested capital than in wheat culture. A family can produce more in pounds and in value on ten acres of fruit than on one hundred and fifty acres in wheat. This is easily demonstrable.

Ten thousand pounds of green prunes per acre, or 3330 pounds of dried, is a conservative estimate. Twenty bushels of wheat, or 1200 pounds, is a large estimate per acre. The farm value of the prunes this year is $330. The farm value of the wheat is $15. Our peach orchards will show as many pounds green as of prunes, with half the dried product of prunes worth this year $200 per acre.

We have low prices for fruit at times, but never down to cost of production. There never has been a time when good fruit, well-handled and cured, did not bring a good profit.

There is, in fact, but one question that admits of discussion bearing upon the fruit industry of California. We have advanced beyond the experimental stage in all fruit products of the State from Shasta to San Diego. Oranges, lemons, figs, almonds and other nuts, prunes, cherries, apples, peaches, apricots, pears, plums, nectarines, olives and foreign grapes, are all grown in commercial quantities for 700 miles north and south. Our trees come into bearing quickly, are prolific bearers, are long-lived and healthy. The fruit is large and bears shipment green for long distances, and retains much of its lusciousness and flavor and attractive appearance.

NO DANGER OF OVERPRODUCTION.

The sole factor that has not passed beyond dispute relates to the question of overproduction and consequent loss of market. We had this confronting us in 1880, when we exported by rail only 546 carloads, and we had it in 1891, when we shipped 20,706 carloads, including shipments by sea. Strangely enough, there are fewer persons who doubt the market than there were in 1880, although we export 40 pounds now where we shipped one then.

There is one very convincing fact to my mind that the danger of overproduction is imaginary. It is this: Our horticulturists are deeply interested in the question; they are, as a class, reflective and intelligent—I think I may truthfully say, a very superior body of men. Their interest and success are deeply involved in knowing the truth of the matter; they are not land agents, and few of them have land for sale. Every personal consideration would lead them to discourage planting, if they thought there was any danger of overproduction. But they not only do not discourage, but are doing all they can to encourage it, and are extending their own plantings where they can.

Mr. W. H. Mills, a high authority upon the question of distribution, has recently pointed out the fact that our fruits do not reach over 5,000,000 of our citizens out of the 65,000,000 who will buy them if they can get them.

We shipped by rail to the East in 1891 of green fruit less than three pounds per capita of our population; of dried fruit, one pound per capita; of raisins, about two-thirds of a pound per capita, and of canned fruits about three-fourths of a pound per capita—about five and one-half pounds per capita of all kinds.

It must be obvious to all that this is only tasting fruit, not eating it. But our population is increasing at the rate of over one and a half million people annually. It will take a thousand acres of new orchards every year to keep pace with this increase alone at the present small per capita consumption. If, however, our fruit is consumed by five million people, they must buy one hundred pounds per capita, which shows our utter inability to overproduce when we shall have reached all the consumers.

OUR MARKET GROWING.

President Andrews, already quoted, says: "Our own country, adding to its numbers by nearly three per cent a year, bids fair to approach 90 millions by 1900."

Think of 30 million people to be added in eight years; it is simply apalling; and California must supply them with fruit. Does it not seem more of a problem whether we can do it, even by our rapid planting, than whether we can find purchasers?

But we must not overlook another important fact, that this increase of human beings will not gather along the Atlantic coast. They will push into the great West. The center of population is moving steadily westward. The census of 1890 shows that nearly one-half of the increase since 1880 has been west of the Mississippi river. We read the large figures of shipments of our green fruits and think them phenomenal, and hence conclude that we must necessarily glut the market shortly. You will be surprised to know how small a figure our green fruit cuts at the East. A copy of the proceedings of the Western New York Horticultural Society for 1886 came into my hands. Nineteen counties were represented, but only nine gave data from which I could calculate shipments of fruit for 1885.

I found, however, that the nine counties had shipped 387,558,820 pounds of apples that year to a market near home.

Now, California has never sent out in any one year more than half this number of pounds of green deciduous fruits and oranges; indeed, our entire export of green, dried and canned fruit by rail and by sea in 1891 fell short of the number of pounds shipped from nine counties in the State of New York in 1885. The total yield of apples from this region in a good year would probably reach 40,000 carloads.

DON'T HAVE TO WAIT LONG YEARS.

Let me tell you another thing which may comfort those who doubt the profitableness of fruit-growing. Orchardists in western New York claim to make a net profit of $200 to $300 per acre. A four-acre orchard planted in 1833 was reported as yielding $400 per acre. Another orchard bore its first good crop after twenty years. In Monroe county an orchard nineteen years old reported $400 to the acre. And yet our Eastern brethren accuse us of violating the ninth commandment when we tell them we get two or three hundred dollars per acre from our orchards, while the fact is we suppress the truth, which is that we often get twice that; and we don't have to wait twenty, or ten, or even six years.

At the risk of pushing the argument beyond reasonable limits (for the question of our ability to sell our fruit is certainly an important one), I must give you another illustration. I have carefully inquired to learn the consumption of fruit by a family of five here in California, and I find that it consumes, throughout the year, in all forms, an average of one pound per day, or 75 pounds per capita for the year. California now consumes 25 per cent of all we grow, and our State only contains about one-fiftieth of the population of the Union. We consume, per capita—and we pay good prices for it—75 pounds of our fruit, while we are selling without the State only 5½ pounds per capita of all kinds. I am utterly unable to turn the light upon this question from any direction without seeing a practically unlimited market.

The *California Fruit Grower* of November 5th publishes an extract from a letter written to the *Southern Cultivator* relating to the Georgia peach. The claim is made that the Georgia peachgrowers realize a profit of $150 to $300 per acre, and some valuable facts are given to justify the claim.

They pack in cases of six one-gallon baskets, weighing about 40 pounds in each case, 500 cases to a carload. The freight to New York is 35 cents per case, or $175 per car; refrigeration, 18 cents; making 53 cents per case in all, or $265 per car. The cases are set down as costing 24 cents made up; picking, packing and hauling to the railroad, about 10 cents more, making 35 cents f. o. b. cars. The correspondent further states that a carload of good peaches usually nets the grower about $1000. He further reports sales of 480 cases by Snow & Co. of Boston, in August, when Delaware and California peaches were in the market at $1721.75 gross. Allowing usual commissions, it will be seen that $1000 per car net to the grower was an inside estimate.

We ought not to be obliged to make affidavits about our profits when the New York applegrower and the Georgia peachgrower claim an unchallenged profit of two to four hundred dollars per acre. You will observe that the transportation cost from Georgia to New York is greater than ours from here to New York.

No one can doubt the superiority of the California fruit orchard for certainty of crop, quantity and quality of fruit. Why, then, should any one doubt the profitableness of the industry?

Mr. Mortimer Whitehead, special agent in charge of Division B of Agriculture of the Eleventh Census, which includes horticulture, at a meeting of the American Pomological Society in 1891, stated that the peach acreage in the United States was found to be 597,736; the value of the product, $76,160,400; and that over $90,000,000 were invested in peach-growing in the census year of 1889.

Here is evidence that the American people expend about $1.25 per capita per annum for peaches alone. It is also evidence showing that the peach orchards as a whole yielded about $130 per acre. Large as is the peach industry, it is less than one-tenth of the whole fruit industries. Mr. Whitehead stated that the investment in horticultural pursuits will be shown to be more than $1,000,000,000.

Surely, the humble fruitgrower may now claim the right to stand beside the noble army of agricultural toilers whose mission has been to supply the world with articles of food necessary to human existence, and whose calling has been the theme of poets, the care of statesmen, the solicitude of governments, and always will be, as it always has been regarded as the basis of human progress and human happiness.

THE REAL PROBLEM.

The truth is that the problem with us is one of transportation and distribution. And this involves the problem of bringing the producer and consumer nearer to each other. We are content with one and a half cents a pound for almost any of our green fruit. It will afford a good profit at one cent. And one and a half cents for carriage, and two cents to the middlemen and for packing, and we have California fruits in the hands of consumers at five cents per pound, and this means a three-ounce peach for a cent or a dozen apricots for a nickle, or three large Bartletts for ten cents, or a nice dish of fruit for a family for a quarter. We all know that people will eat fruit in quantities at reasonable prices. The whole solution of the question rests with us in improving and cheapening transportation costs, and not giving the lion's share to the middlemen.

FIFTEEN DAYS TO LONDON.

A new and important factor has been introduced in the demonstration that our green fruit can be laid down in good condition in London and Paris and Hamburg in 15 days. Our dried and canned fruits are also being well received abroad, and this will add immensely to our markets. I think I need not pursue this point further. Many are deterred from engaging in fruit culture, because of the time consumed in building an orchard, because of unfamiliarity with the occupation, and because of the cost.

Now, let us look at these objections a moment. Given the land (which can be bought from $25 to $200 an acre, and if you are content to start in newly developing regions the cheaper land will be found just as good as the dear)—I say, given the land, you can have a paying peach, or almond, or apricot orchard by omitting one summer-fallow crop of wheat—in other words, in four years; in five, a paying prune orchard, and in six, a paying pear orchard. You will get fruit sooner, and considerable of it. From this time each year adds to the value.

NO MYSTERY IN FRUIT GROWING.

As to your unfamiliarity with the business, you have only to study the methods of suc-

cessful growers around you and apply the ordinary rules of soil tillage and your good common sense, and nothing more. There is no mystery in the art of fruit-growing.

As to the cost, you must consider your investment and its character and value. You sow wheat, and put seven or eight dollars into the ground, and in two years take away twelve or fifteen at most, and must then repeat the process. Every planting is a new investment and a new venture.

You plant an acre of trees, and they will cost you at the end of the first year $30, which you can reduce to $25 by your own labor. At the end of the second year you will have paid out $10 more per acre, the third $12.50, and the fourth $15—in four years $67.50. If you have had some bad luck you may add enough to make $75 per acre, or possibly $80.

The fifth year of apricots, peaches or almonds you should have a gross income of $150 per acre, at least half of which should be profit.

The same acre in wheat would have given you two crops in the four years, yielding you a profit of $15, which is far more than the average, and you would probably get one volunteer crop, making $20 in all. But at the end of the fourth year you have nothing but the land, less productive.

In the case of the orchard, you have built a permanent plant that needs only care and tillage, with an increasing income, and greatly disproportionate to the income from wheat.

Viewing the matter from the standpoint of interest on the investment, and there is increasing advantage in the orchard.

I think fruitgrowers will corroborate my statement that I have underestimated the orchard and overstated the wheatfield.

DO NOT ABANDON WHEAT GROWING.

I leave the subject with one or two observations. As fruitgrowers, we do not counsel the abandonment of wheat-growing in California, by any means. We only say that much of the wheat land should be subdivided and placed in the hands of more people, and subjected to higher and more profitable uses; that our soil and climate are adapted to the growth and production of many valuable fruits that cannot be elsewhere grown in the United States, and that we can find a much more remunerative market than our wheat can ever find; that profitable fruit-growing means small holdings and increased population and a better home market for wheat; that one acre in fruit will yield more profit than 15 acres in wheat; that fruit-growing is a higher order of agriculture, develops a more thoughtful and intelligent man, and conduces to better citizenship by reason of this higher intelligence; that it will tend to hold our children away from the cities by making rural life more attractive. In short, it will add to the happiness of the people, and wealth and power and prestige to the State.

PATRONS OF HUSBANDRY.

National Grange, P. of H.

Twenty-Sixth Annual Session at Concord, N. H.—Full Attendance.—Items by the Wayside.

CONCORD, N. H., Nov. 20, 1892.

TO THE EDITOR:—California to New Hampshire in seven days, with six hours for rest at Chicago, was the time required for our trip. The trip was a delightfully pleasant one, without rain, mud, dust, cold or hot weather. Between Chicago and Montreal a trifle of snow had fallen, but not enough to make one feel cold, or to prevent farmers from plowing. As we came through the States of Kansas, Nebraska, Iowa, Illinois and Indiana, evidences of a fruitful crop-year were everywhere, along the line of the railroad, evident. Coming, as we did, through Canada, a good opportunity was offered to observe the manner of farming in our neighboring country. To the credit of the Canadian farmer be it said, he is well equipped, systematic and progressive. Good teams, improved machinery, stable and convenient buildings, and fences in ship-shape, all foretell his industry and thrift. Most of the buildings, both city and country, are built of brick or stone. Roads are well graded and macadamized and evidences of permanence are everywhere observable.

Interviews with many Canadian farmers all led to to the conclusion that they expect to get direct benefit from the legislation of the 53d Congress of the United States of America, from which body they expect the repeal of the McKinley bill.

On arriving at Concord, we found the city beautifully ornamented with flags, bunting, banners, streamers, mottoes and other devices of friendship. Brothers Past Masters Stinson and McDaniel of New Hampshire State Grange, assisted by Bro. Batchelder, the efficient worthy master, and his able corps of officers and members were on hand to welcome the Patrons. And the welcome was warm, hearty and fraternal.

The 26th annual session of the National Grange was opened at 11 A. M. Wednesday, November 16th, 1892, in Representatives' hall of the Capitol building, Concord, New Hampshire, by Worthy Master J. H. Brigham. All officers were present except Worthy Gate Keeper, Bro. W. H. Nelson of Tennessee, and Worthy Ceres, Sister J. H. Brigham of Ohio, both of whom were too sick to attend. Twenty-six States were represented at the first roll call, and the number has since been increased to 28. Four States which are entitled to representation are not represented, owing to the sickness of the representatives. The attendance of visiting Patrons has not been so large for many years past.

The usual routine business has been transacted, with the ordinary dispatch. Several important subjects have been introduced and referred to the proper committees. Lively debates are sure to follow when the subjects are reported back for final action by the National Grange. Reports of masters of State Granges show the Order to be in a prosperous condition. Reports of officers of National Grange show the financial condition of that body to be satisfactory. The executive committee have not yet submitted their report. The public reception tendered the National Grange Thursday P. M. at the Opera House was a brilliant affair. An immense crowd was present and some eloquent speeches were made. Friday afternoon and evening were devoted to degree work. At 2 P. M. the sixth degree was conferred on a class of 882. At 4 P. M. the seventh degree was conferred on a class of 869, and at 8 P. M. the same degree was conferred on 500, making 1369 in all. This is the largest number of Patrons upon whom the degrees were ever conferred at any one session of the National Grange.

Saturday the National Grange went on an excursion to the White Mountains, the guests of the Concord Commercial Club. Sunday all went to church in the morning. At 3 P. M. memorial exercises were held by the National Grange in memory of Bro. Wm. M. Ireland, one of the seven founders of the Order of Patrons of Husbandry, and Bro. W. G. Wayne, Past Master of New York State Grange.

NOTES.

Brother John Trimble, the obliging and efficient secretary of the National Grange, sends his love to all California friends, among whom, he says, he knows the sisters predominate. Bro. W. R. Williams of North Carolina feels exactly as does the worthy secretary on this proposition.

Colorado, Indiana, Massachusetts, New Hampshire and Oregon are represented by new faces at this session.

Wisconsin's new representatives are not present.

A member of the executive committee will be chosen, vice Brother Leonard Rhone, whose term expires by limitation.

It is yet doubtful where the next session will be held.

The World's Fair, the savings and loan scheme, and the Temple to Ceres, are subjects that will probably provoke a lively discussion.

The weather is lovely.

Hotel accommodations splendid. New England hospitality unbounded.

The session will probably continue for the week.

Have met many who have friends in California.

Everybody at the National Grange sends kindest regards.

The Order in New England is prosperous.

More anon. E. W. D.

The Annual Address.

The Master's address was, by special vote, given in an open meeting. It consisted of an able and comprehensive statement of the condition of the Order, and suggestions as to the duties of the Grange to the country and to itself, as the representative of the social and financial interests of the greatest leading industry of the nation. We are unable, from lack of space to give the address in full, but condense as follows: After expressing in a few warm words, a fraternal greeting and a saddened remembrance of those who were present, so full of love and life, at the last New England meeting, seven years ago, but who will meet with them no more until all shall awaken in the light of the "eternal morning," he said: "Our members come and go, but the good work which we have commenced will go on forever."

The condition of the Order and the financial standing of the National Grange is good, for "we pay as we go." The reports show increasing numbers, careful observance of principles, a conservative spirit in all things, increased influence of the Order and no entangling alliances with other associations.

In agriculture there is much to be thankful for; but there is important work to do. The true husbandman asks for no change in God's decree of work for bread, but he does ask for "an honest share for wife and home, of what the harvest yields." How to obtain that share is one of the problems which the Order seeks to solve.

"Surrounded as we are, by thoroughly organized forces in the professions, as well as in every department of business, we feel that there is no sure way of securing our own, except through intelligent cooperation on the part of the farmers.

"If commerce and trade exact too much for the service rendered, we can successfully resist such exactions. If agriculture is unequally taxed we can enforce equality. If officials are careless or extravagant in managing the affairs of Government, we can retire them and make better selections.

"The evils and hardships of which we complain are but the results of our negligence. If we wish reforms we must reform our own methods. The people must resume the control of the Government and fully protect in all their rights, the toiling millions whose labor produces the wealth of the nation. In all real reforms our Order will not be found wanting. Much has been accomplished already."

Among the results of the efforts of the Grange up to the present time, the master enumerated the following: "The elevation of the Department of Agriculture; the oleomargarine law; the interstate commerce law; the establishment and maintenance of agricultural experiment stations; the meat inspection law; the adaptation of the weather service to the needs of the farmer; the increased protection secured to the farmers in the late revision of the tariff laws; the opening of the markets of other countries to the products of agriculture; the increased interest in agriculture manifested by the management of agricultural and mechanical colleges; and ballot reforms."

In accomplishing these results it is claimed that the Grange has set in motion, agencies which will be of incalculable value to the farmer and also to the country at large. It must be the future work of the Grange to keep watch and guard over this legislation, as there are interests in the country which bring about efforts antagonistic toward it.

In regard to the Antioption bill, which failed to pass the last Congress, the master said: "I believe that we should redouble our efforts to secure the early passage of the Washburn-Hatch Antioption bill at the next session of Congress. It may be possible that we will be disappointed in the results; but if so we shall have tested one of the methods proposed for the relief of agriculture. The effect of gambling in farm products can never be known until it ceases and trade resumes its normal proportions."

The educational influence of the Grange is the great central object of our Order, and it should be its purpose to teach better methods in all branches of work including all that pertains to good citizenship. In this, great progress has already been made. One of the most important factors in this work is the Grange press, and special efforts should be made to extend it.

Woman's work in the Grange has already accomplished much and demonstrated the wisdom of continuing and extending it.

The free delivery of mail matter to the rural population was urged as a duty of the Government. The Grange has already taken a decided stand in the matter. The only possible objection to it is its cost, and when that is properly considered it will be seen that it will prove a great saving to all outside of the larger towns and no increase to their burdens. It will do much in the way of educating the people of the country and make them more contented to remain in their rural homes.

In regard to capital and labor, the farmers are deeply interested in the relations which exist between the employer and employe, and the Grange views with apprehension the disagreements which are too frequent, and against the real interests of all. We believe the "laborer is worthy of his hire, and that steady work and fair wages are of vital importance, not only to the laborer, but to the people as well. We believe that employers can better afford to accept losses which result from temporary causes than to provoke a conflict with men whose labor has in previous time brought great profit to the employer. We have no sympathy with capital organized to destroy labor organizations formed to promote the interests of workingmen. The right to organize for proper ends must be maintained. But when labor organizations make unjust and unreasonable demands they must not expect the support of conservative people; and when they resort to violence to enforce their unjust demands, they must expect to meet the united opposition of all law-abiding citizens. Conservative demands and respect for the rights of all concerned will give to labor the moral support of all good citizens. Labor unions are not alone in making unjust and unreasonable demands. Capital is too often selfish, cold and merciless, and is sometimes used to corrupt legislators and even courts. The Grange has no sympathy to waste upon "soulless corporations."

The people should rule, and all legislation should reflect the views of the people and carry out their views as expressed at the ballot-box. This system, if properly carried out, should afford perfect justice and security to all. Four years ago the verdict of the people was in favor of a protective tariff. In the campaign just closed the people were emphatically against a tariff. No one should question the right of the people to change front on this question; and it now becomes the duty of our legislators to enact laws in conformity with this last popular expression.

In continuing this discussion the master says: "It is probably a misfortune that the opposite policy was not accorded sufficient time in which to test fully the working of a law framed to protect all American interests. But the right to change front is one which the people must not surrender. All our Order will ask of the new administration is that the same consideration given to other interests be accorded to agriculture.

"If the producer on the farm must compete with cheap labor, let the producer in the factory and mine do the same—this is but justice to the farmer.

"Protection has been advocated in the name of labor, and the returns indicate that it is labor employed in manufacturing which has declared against it. Let the decision be regarded. Let the cleaver of free trade descend upon every protected industry and not alone upon agriculture. The farmers have become accustomed to neglect and unequal legislation, but they are not wholly indifferent to it, and they may at some future time reach a point where partisan associations and prejudice may not be strong enough to prevent them from resenting unjust discrimination against the agricultural interest."

In regard to the arid land question, objection is made against the expenditure of large sums by the Government in that direction, for the reason we still have an abundance of land for newcomers that does not need irrigation; when that is exhausted, it will be time enough for Government to take up the question of expending money to render arid lands fit for cultivation.

The financial situation of the country is referred to at considerable length. The master says: "It is not the province of our Order to interfere with the freedom of, or dictate what any member shall believe upon any economic question, but rather to encourage investigation and thought, while at the same time we counsel conservative action when important changes are proposed. 'It is oftimes better to endure the ills we suffer rather than fly to those we know not of.'

"The farmers are vitally interested in all questions relating to the circulating medium of the country, and full and free discussion of everything pertaining thereto is desirable. We should avoid all reflections upon the patriotism or integrity of those who differ with our views, recognizing the right of every man to his own opinions. We should urge all, however, to investigate for themselves rather than adopt the opinions of others."

The remarks made by Worthy Master Adams before the National Grange 17 years ago were referred to and commended to the thoughtful consideration of all. The years that have elapsed since that address was made bear testimony to the truths then enunciated, which were to the effect that for many years men have been torturing their brains to devise some plan whose talismanic power might transmute bits of paper into countless millions of actual money, which should go directly into the pockets of the poor and needy; but all such efforts have proven a veritable "will o'the wisp," which ever evades the clutches of those who would secure it.

In order to bridge over the immense destruction of values brought about by our civil war, Government issued a large volume of irredeemable paper money, which served for a time to conceal our poverty, but by its use values became still more confused, and we drifted far away from the world's standard. It brought us an inheritance of debt, extravagant habits and a distorted judgment of values. Out of this trouble no royal road has been found. Only so far as we have returned to habits of industry and economy, guided by intelligence, have we regained our wealth and removed our burden of debt.

From the above and the general experience of the world, Worthy Master Brigham infers that gold and silver are the two commodities best adapted for the measure of value. Congress may determine the number of grains in a coin, but a higher law steps in and fixes the value. If the coins are unequal in value, the one of higher value will be hoarded, and the lowest will find its way into most general circulation. No legislation can prevent it. There must, of course, be convenient representations of money, and experience has shown that Government notes are the best. Care, however, must be taken in the issue of such notes, and they must be kept interchangeable for coin.

The subject of practical work—the reduction of theory to practice, to give substantial aid to members of the Order—is urged. Much in that line has already been done, but it is thought that other and further help may be given. A committee has been appointed by the master to take this matter into careful consideration and report at an early day. Commendatory allusion is made to the work of the lecturer and secretary of the National Grange.

The master concludes his address with the hope there will be a general participa-

tion in the discussions and that everything will be done in a careful and harmonious manner.

The open session was closed after the delivery of the address, and the Grange was immediately opened in the fourth degree for the transaction of business.

The report of the overseer, Hiram Hawkins of Alabama, was called for and especial reference made to the accomplished and prospective work of the Grange on the Pacific coast.

This was followed by the reading of the reports of the steward, E. W. Davis of California; Pomona, Mrs. M. J. Thompson of Illinois; and the treasurer, F. M. McDowell of New York.

That of the steward was general in character, being a review of the conditions of agriculture and the effect upon it of the work of the Grange.

The report of Pomona was in the nature of an essay upon the domain of woman, having direct reference to the position she fills in the Grange, and representing the Goddess of Fruit.

The treasurer's report showed that the total amount of receipts for the year was $23,242.43; expenditures, $23,701.37. The total amount of deposits was $50,000.

The lecturer, chaplain and assistant steward asked for an extension of time upon their reports, which was granted.

The roll of States was then called for the introduction of business without debate, and a resolution was introduced by E. W. Davis of California, which favors the prosecution of the Nicaragua canal scheme.

During the evening session, the reports of the masters of the State Granges were read and considered. These reports related chiefly to Grange-work in the several States. A resolution, introduced by State Master E. W. Davis of California, was read and adopted, calling for an address by Prof. Dodge of the U. S. Agricultural Department as a special order for Friday.

Probably the most interesting event of the session was the open meeting held on Thursday, arranged for the purpose of extending to the Grange a formal welcome from the State, the city and the State Grange. National Master Brigham presided, and after stating that the meeting was held upon the invitation of the New Hampshire State Grange, the master of that Grange, N. J. Bachelder, was called upon to extend the invitation of his Grange to the National Grange, which he did in most fitting words, to which a brief but eloquent response was made by S. L. Wilson, master of the Mississippi State Grange.

Hiram A. Tuttle, Governor of New Hampshire, was next called upon to welcome the Grange in behalf of the State. He remarked that it gave him heartfelt pleasure to welcome to the State and to the hearts of its people the representatives of an Order which had done so much to elevate and improve the great industry which it represented, and he was especially happy to be able to state that three-fourths of the delegates to Congress from New Hampshire were members of the Grange.

Master Brigham replied in eloquent terms, as he voiced the thanks of the Grange for the reception so heartily tendered by New Hampshire's Governor.

Mayor H. W. Clapp was next introduced and tendered a brief but hearty welcome in behalf of the city, to which response was made by Mortimer Whitehead of New Jersey, the lecturer of the Grange.

A welcome was also tendered in behalf of New England, which was followed by several other addresses by distinguished men in and out of the Grange, and from various parts of the country, the meeting being concluded by the singing of "America" by the entire assembly.

The special order for Friday morning was an address from Prof. J. R. Dodge, Statistician of the Agricultural Department at Washington. Prof. Dodge is a pioneer in the Order and a member of Potomac Grange, No. 1, the first ever organized. The address was replete with information and suggestions as to the proper ways and methods to be taken up by the Order, and the great amount of good that might be accomplished. The speaker concluded with the assertion that the Grange rests on a basis of granite, and not on sand; hence it will be perpetuated with increasing honors and influence. We shall refer to this speech more fully in a future issue.

Following the address of Prof. Dodge, Alpha Messer, chairman of the committee on agriculture, made a very exhaustive and able report on the separation of agricultural and mechanical colleges from classical colleges, and 5000 extra copies of the report were ordered printed. So great was the crowd in attendance, that to accommodate the hundreds that could not get into the opera house, a public meeting was held in Phenix hall, at which addresses were made by many prominent members of the Order.

On Tuesday, previous to the first meeting of the Grange on Wednesday, the executive committee audited the accounts of the treasurer, which were found most satisfactory, there being a balance on hand of $74,000. McDowell, the treasurer, was one of the founders of the order and has held his office 26 years, during which time upwards of $2,000,000 have passed through his hands. The committees for the session were appointed by the worthy master. We notice that E. W. Davis, Master of California State Grange and Steward of the National Grange, has an appointment upon three committees—those of publication, the ritual and a special committee on investment and loan association. Mrs. Davis has a place upon the committee on foreign relations and on mileage and per diem. Mr. D. L. Russel of Washington was placed upon the committee on order of business and Mrs. Russel on that of Woman's Work in the Grange. Judge R. P. Boise of Oregon upon committees on the good of the Order and on constitution and by-laws.

The Secretary's Column.

By A. T. Dewey, Secretary State Grange of California.

BRO. JOHN TOUHY has been elected master of Tulare Gragne. Bro. T. is one of the solid men of the Order. We shall look for continued prosperity for Tulare Grange. The record of BRO. E. C. SHOEMAKER as a dutiful master will be hard to beat. He has attended every meeting during his mastership of two years, traveling 24 miles in going and returning.

ELECTION OF OFFICERS.—Every Patron should feel interested in the election of officers for the ensuing year. Be present and use your best judgment in voting impartially. This is a good season to revive or increase interest in your own Grange. Try and make a good start for 1893.

SECRETARIES are requested to make early returns of Grange elections on the blanks recently forwarded from this office.

WANTED.—The address of Mrs. Caroline Schaper, whose sixth degree certificate we have been unable to deliver. She took the degree in October, 1889, at Sacramento.

A Timely Letter.

SACRAMENTO, Nov. 26th, 1892.

TO GRANGE CORRESPONDENTS:—In a recent circular to the Committees on Woman's Work, attention was called to the advisability of having a correspondent in each subordinate Grange, and a few words may not be amiss as to what is desired for publication in the PRESS.

There are many occurrences , but send only such as will be of interest to members of the Order generally, and write them as concisely as possible. In reports of your meetings, note the ideas expressed, and the work planned or accomplished, rather than the social features, the plan of entertainment, rather than a list of participants. If your Grange unfortunately loses a member by death, make a note of it in your report, but remember that while memorial resolutions are eminently proper and appropriate, they should be confined to the records of your Grange, and to publication in local journals. Only essays or papers of pronounced merit should be sent to the Grange paper; it costs just as much to print a poor one as a good one, and the editor should not be expected to publish in the Grange columns, matter that would be excluded from other pages.

The RURAL PRESS is a first-class journal, filled with excellent reading matter, and we cannot afford to have the Grange fall below the standard adopted for other departments; while we desire it to advocate the Grange cause, we must bear in mind the fact that it is a journal in the hands of hundreds of readers who are not members of the Order, but who are eligible to membership, and we should advocate that cause ourselves by the character and quality of the articles we furnish for our department. Write our motto "Excelsior" and then put forth our best efforts, and we shall not regret the labor, that the Grange may reap benefit. Fraternally,

HATTIE S. JONES,
Chairman State Committee Woman's Work.

Note from Past Master Steele.

Past Master I. C. Steele writes to the editor from Pescadero, under date of Nov. 26th, as follows:

The Grange department of the RURAL PRESS is always of interest to me, and I certainly wish the RURAL PRESS, as well as the Grange, all the success it deserves. It comes to me as an old and valued friend. I am happy to commend the candor and fairness shown in the discussion of public questions, and men in the midst of political excitement. To agree to disagree is a principle held in high esteem among Patrons of Husbandry.

But little of general interest in Grange circles has occurred here since the State Grange meeting. Pescadero Grange holds regular meeting twice a month (the 1st and 2d Saturdays). The meetings are fairly well attended and interesting to those who attend. The second meeting in October I was unable to attend. A class of two has been initiated in the fourth degree in November.

Arrangements are in progress for a suitable observance of our Grange anniversary on the 3d of December. All Patrons are cordially invited to meet with us at 12 M. on that day.

San Jose Grange.

What this Live Grange is Doing.—Its Plans for the Winter.

SAN JOSE, Nov. 28, 1892.

TO THE EDITOR:—I have been requested to answer the following questions for publication in the RURAL PRESS: "What is your Grange doing?" and "What are the members of San Jose Grange planning for the coming year?"

In answer to the first question will say, we are holding weekly meetings, and out of a membership of 150 the attendance is from 45 to 65, but on extra occasions from 80 to 100 are present, composed of as active, energetic and able, intellectually (the writer excepted), set of men and women as can be found in any deliberative assembly in the country.

They endeavor to keep abreast of the times by discussing the live issues of the day, not ignoring finance, politics or religion, always avoiding anything thet savors of partisanship or sectarianism.

The members of San Jose Grange are built on broad-gauge principle and do not feel aggrieved if political or religious sentiments are given utterance to, that conflict with their preconceived ideas of what is right. Being earnest seekers after truth, they do not hesitate to follow it, though it lead them into the enemy's camp.

The widest latitude is given to the discussions of all questions brought before the Grange. These discussions are not always monopolized by the gentlemen, for the ladies often take part in them, and the result is many of them are becoming ready and able speakers.

Original papers are frequently read, each possessing considerable merit. Among the leading ones, as the writer recalls them from from memory, are: "The Granges and their Relation to Class Legislation," "The Political Possibilities of the Farmers," "The Grange from an Individual Standpoint," "The Experience of a Disembodied Soul in Search of God," "Capital and Labor," "A Description of the Garden of the Gods," and "A Description of the Passion Play," given by one who witnessed its performance by the simple-minded but intensely religious people in the mountains of Bavaria.

Many persons know, but all do not, that the "Passion Play" is the portrayal in real life of the arrest, trial and conviction of Jesus of Nazareth before Pontius Pilate, of the "Last Supper," of the betrayal of Jesus by Judas Iscariot. Jesus is seen in the Garden of the Gethsemane, in the attitude of prayer. A hooting and jeering rabble follows Him as He is bearing the cross to Mount Calvary; His crucifixion; the placing of His body in a sepulcher, guarded by Roman centurions; Its mysterious disappearance; Jesus appears to His apostles in an open chamber; and his final ascension.

The paper was so graphic in style and true to life that the listeners could almost imagine they could see all that was described. There were many others of equal merit.

Under the head of the "Good of the Order," the Grange is placed in charge of the worthy lecturer, which is the signal for the commencement of the literary and musical exercises, which always forms an important and pleasing feature of our meetings.

We have in the Grange the Young Ladies' Auxiliary to the Fruit and Flower Mission, to whom has been assigned an hour or an hour and a half of the first meeting in each month, during which a recess is taken and outsiders are invited in, and all are richly entertained with readings, recitations, vocal and instrumental music, making it a very enjoyable affair.

The young ladies of the auxiliary do not confine their energies to giving literary and musical entertainment in the Grange, but are often engaged in collecting clothing, bedding, provisions, literature, fruits and flowers, and distributing them to the inmates of the eleemosynary institutions and to the needy poor outside of these institutions.

The members of the auxiliary have abundant reason to know that they have gladdened the hearts of many poor sufferers with their timely offerings.

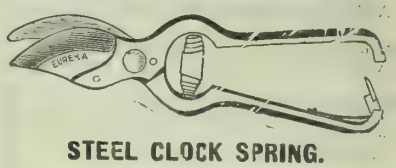
Among the most interesting meetings of our Grange are those questions relating to fruit culture, its preparation for market, time and manner of disposing of it, fruit pests, and remedies for the same. All questions relating to the fruit industry are intelligently discussed by men and women who have made a specialty of those branches of industry for years. The amateur fruitgrower can gain enough solid information at one of these meetings, if reduced to dollars and cents, to pay his dues to the Grange for the next 50 years.

To the second question: "What are the members of the San Jose Grange planning for the coming year?" As a Grange, they have formulated none. It is now circulating a petition to the legislature to change the law so that the widow will come into possession and ownership of all community property at the death of the husband. The following questions will probably receive the further consideration of the Grange: 1st. The two per cent land-loan bill. 2d. The Nicaragua canal to be controlled by the Government. 3d. The subject of a more diversified farming. 4th. In the future, as at the last local election, will pay more attention in selecting good men than to the success of the party which makes the nominations. San Jose Grange will undoubtedly pay its respects to the "nickel in the slot" scheme, said to emanate from the executive committee of the National Grange, advising farmers to "organize mortgage banks and borrow money from the Government, charging the farmer 2 or 3 per cent on loans and paying the Government half the amount received. If the Government is to loan on farm mortgages, why not loan direct to the farmer and let him have the benefit of the 1 or 1½ per cent? It is quite probable that many of those who are and have been connected with the National Grange for years have grown too far away from the farmer and should be relegated back to the people, that new men and new blood may be infused into the National Grange. Very respectfully,

AMOS ADAMS.

PRUNING SHEARS.

EUREKA and DEFIANCE.

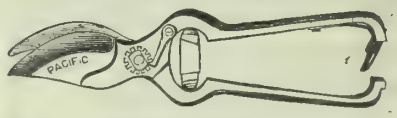


STEEL CLOCK SPRING.

DEFIANCE SHEARS.
LOW GRADE. LOW PRICE.

EUREKA SHEARS
MEDIUM GRADE AND PRICE.
NOT WARRANTED.

PACIFIC.

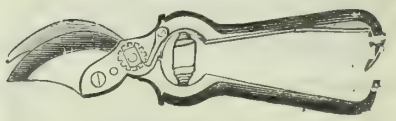


STEEL CLOCK SPRING.
RATCHET NUT. EXTRA BLADE.
H GH GRADE. WARRANTED.

PERFECT.

SAME PATTERN AS RIESER.
DOUBLE FLAT BRASS SPRINGS,
RATCHET NUT. EXTRA BLADE.
HIGH GRADE. WARRANTED.

SONOMA.

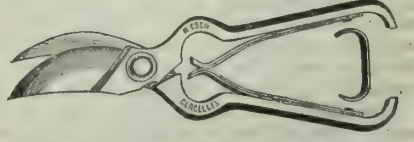


STEEL CLOCK SPRING.
RATCHET NUT.
HIGH GRADE WARRANTED.

FRESNO.

DOUBLE CUT.
STEEL CLOCK SPRING.
HIGH GRADE. WARRANTED.

GENUINE CORCELLES RIESER.



DOUBLE FLAT BRASS SPRINGS.
RATCHET NUT AND EXTRA BLADE.
WARRANTED TO BE WITHOUT EQUAL.
BEWARE OF IMITATIONS.

We are Headquarters for Class of Goods.

All dealers carry the above brands.

If they decline to get them f r you, we will send direct.

BAKER & HAMILTON,

San Francisco & Sacramento, Cal.

THE HOME CIRCLE.

In Memory of John Greenleaf Whittier.

Dec. 17, 1897—Sept. 7, 1892.

Thou, too, hast left us. While with heads bowed low,
And sorrowing hearts, we mourned our Summer's dead,
The flying season bent its Parthian bow,
And yet again our mingling tears were shed.

Was heaven impatient that it could not wait
The blast of Winter for earth's fruits to fall?
Were angels crowding round the open gate
To greet the spirits coming at their call?

Nay, let not fancies, born of old beliefs,
Play with the heart-beats that are throbbing still,
And waste their outworn phrases on the griefs,
The silent griefs that words can only chill.

For thee, dear friend, there needs no high-wrought lay,
To shed its aureole round thy cherished name—
Thou whose plain home-born speech of *Yea* and *Nay*
Thy truthful nature ever best became.

Death reaches not a spirit such as thine,
It can but steal the robe that hid thy wings;
Though thy warm breathing presence we resign,
Still in our hearts its loving semblance clings.

Peaceful thy message, yet for struggling right,
When Slavery's gauntlet in our face was flung,
While timid weaklings watched the dubious fight
No herald's challenge more defiant rung.

Yet was thy spirit tuned to gentle themes
Sought in the haunts thy humble youth had known,
Our stern New England's hills and vales and streams,
Thy tuneful idyls made them all their own.

The wildflowers springing from thy native sod
Lent all their charms thy new-world song to fill,
Gave thee the mayflower and the golden-rod
To match the daisy and the daffodil.

In the brave records of our earlier time
A hero's deed thy generous soul inspired,
And many a legend, told in ringing rhyme,
The youthful soul with high resolve has fired.

Not thine to lean on priesthood's broken reed;
No barriers caged thee in a bigot's fold;
Did zealots ask to syllable thy creed,
Thou saidst "Our Father," and thy creed was told.

Best loved and saintliest of our singing train,
Earth's noblest tributes to thy name belong,
A lifelong record closed without a stain,
A blameless memory shrined in deathless song.

Lift from its quarried ledge a flawless stone;
Smooth the green turf and bid the tablet rise,
And on its snow-white surface carve alone
These words—he needs no more—Here Whittier lies.

—OLIVER WENDELL HOLMES, in the November Atlantic.

The White Lady of Borax Lake.

A Ghost Story.

Written for the RURAL PRESS by LILLIAN H. SHUEY.

Two young men in a camp-wagon drove to the edge of a bluff, and stopped to look at the strange scene before them. The road descended there and entered a small valley, which was bounded on the left by abrupt, brushy heights, on the right narrowing to a wooded canyon. The road crossed the little valley to a grade on the bluffs beyond, and appeared, a white track of dust, on the tableland above.

A large white house was indistinctly seen among the large oak trees on the tablelands. The left end of the valley was a sheet of dark lusterless water, and its shore in front was covered with a wide strip of some chalky-white substance.

Long points of white ran out into the water, and many little, white islands appeared all through the lake. In the center of the valley stood the remains of a house that had evidently once been a comfortable home; the wings were falling away, and the house seemed to have been deserted many years.

The ghostly lake and decaying house were wierdly melancholy in appearance, but the surrounding scenery was full of charm and beauty.

The mountains, the canyon, the bluffs, the yellow stubble-fields of the valley, the fine oaks on the tableland, all combined to make a bright and varied frame to a strikingly sad picture.

Close by the young men, nailed on a dwarf oak, was a rickety old signboard on which was scrawled in white letters "Borax Lake."

"Dick, what do you say to camping down there in that ghost hole?" said one of the young men.

"Good enough, Tom, if we can get water," said the one addressed, removing a pair of sun-glasses from his thoughtful and now sunburnt countenance.

The travelers drove down and investigated. The old house was too ruinous to enter, but the barn was in good condition, full of hay and padlocked. There was an old well with a rickety windlass; by tying their ropes ogethe r they let down a pail and brought up some very good water. They observed that the stubble was light and sweet, with much dry grass underneath, so they decided to look up the owner of the place and get the privilege of stopping there awhile to rest and pasture their horses.

Noticing a road going up the canyon, Tom took the team and drove off, while Dick sat down on the veranda of the house to wait.

Dick, or professionally Richard Fielding, attorney at law, was a blond young man of athletic build, frank in his ways and sometimes abstracted in manner. He was rising in his profession and overwork for a year had caused his physician to order him to the mountains. His companion, Tom Dermont, was an all-round good friend and chum, firmer in build and darker in skin than his friend, with merry gray eyes and a brown mustache. Professionally, he was a student in Fielding's law office, but being the son of a rich Fresno raisin-grower, his law studies were with him more an amusement than a business.

The two had furnished a wagon with all the conveniences of camping and hunting, and had started for the deer regions north of San Francisco, and they were ready for anything that was adventure or amusement.

Presently Dermort came back, bringing on the seat beside him a grizzled old farmer, gaunt in figure and shrewd in countenance.

"Want to camp here?" he exclaimed; "this ain't no place to camp. Come up to the house, now, where the old woman will look out for you."

But the boys said they wanted to live a wild sort of life and sleep in the open air.

"Wall, its curus taste, but you can stay here if you want to. Turn your horses in the field there. I'll unlock the barn and you can pay for the hay and grain you use. They's slathers of deer about six mile from here. We can take them nags of yours and start off before daylight, and I'll show you all the deer you want. But I reckon you won't camp here by this old house long."

"Why?"

"Hanted!"

The boys looked dubiously around.

"Well, you'll find out." The farmer climbed stiffly out of the wagon. "I hain't done my chores yit. I'll see you later."

He hurried away, and the young men made their preparations for the night.

They pitched their tent by a cluster of great, untrained rosebushes, and made their fire at the foot of a tall blue-gum tree. They took from their provision-box rolls, cake, chops and fruits, which they had purchased at Ridgetown several miles below. A table was unlashed from the wagon and legs screwed in, folding chairs were unroped and dusted, and a roomy tent stretched, with a wide canopy in front.

"I say," said Tom after supper, when they were smoking fragrant cigars before the smoldering fire, "this isn't a bad place. Let's have our mail come to Ridgetown and stay here awhile. I wonder who lives in that white house up there above the bluff."

"Trust you to find," answered Dick sarcastically, "if there are any girls there."

"Wall, how ye makin' it?" sounded from the rear, and the old farmer, a clay pipe in his mouth, and "dressed up" in a white shirt, came under the canopy.

"Fine, fine," said Tom; "have a seat."

Comfortably seated in an easy folding chair, his eyes taking in the expensive outfit, he soon began to spin out the story he was aching to tell.

"Long about fifteen year ago, a man named Marcy owned all this land. He started in to wheat and cattle like the rest of us, but his cousin Phil Marcy and another thunderin' big fool come along and made him think he could make money out of that old lake.

"Marcy had a wife, pretty as a picture, but rather too high toned for these parts. Phil Marcy was the living image of his cousin Tom, and more to the liking of the woman, I reckon, for folks say that she was driving around the country half the time with Phil, while the other Marcy was down in the lake driving piles. Phil had a new buggy and two fine horses, and he made himself to home generally. When they found there was no market on top of the earth for borax, things began to get mixed generally. Tom Marcy took to the plow again, and they say Phil stayed in the house and helped the woman cook.

"Then there come on a terrible winter. It didn't do nothing but rain and rain for about three months.

"Well, the rest of the story is just as I heard it. One day a tramp came along with a raging fever. Them Marcys was sort of clever that way, and they took that tramp into that room off the porch, and took care of him.

"One day Phil Marcy and the woman and a little gal about five year old was seen driving like mad through the rain to Ridgetown, where they took the stage, all wrapped up like dummies, and went to San Francisco. The neighbors had been suspecting all along that they'd elope, and nobody was surprised. Tom Marcy went to Ridgetown that night and sold his place to Judge Holt, the new notary public, for five thousand, and then notified the doctor that there was a man sick out on his place with smallpox. One of the doctors, also a new man in these parts, went out there. It kept on raining like cats and dogs. The doctor said Marcy gave him $500 and asked him to stay there till he took down, and so he did.

"The tramp got well, but Marcy died, and the doctor buried him in the field yonder. The two Marcys in the city died in the pesthouse, Phil Marcy passing himself off all the time for Tom. Mrs. Marcy had a rich brother come out from the East, and he took the little gal. He come up here in the spring, but the place was deeded fair and square to Holt, and that was the end of it. He had given a check for four thousand and the rest in cash. The doctor got five hundred, but nobody could ever find sign of the rest nor the check. Holt hung out that the check had been sold, and the uncle got wind of the scandal and went off. Four thousand warn't nothin' to him, no how, bein' so rich. The doctor said he saw a box with money and diamonds in it, but he thought the tramp must have got away with it. But they say the uncle brung the gal up in fine style. Holt owns this land yet and rents it out. I farm this bottom land, and nobody ain't ever lived in the house. I reckon nobody wants to."

"I suppose the Marcys that eloped come back and hold high carnival once in awhile," said Dick.

"Always in the summer; see the light myself."

"Ghosts with a light!" cried Tom.

"Yes; and there's the White Lady who walks on the lake. They say that's Mrs. Marcy a visiting her husband's grave. That's what they call the White Lady of Borax Lake."

"What about the deer?" said Dick. "What are you going to charge us to take us up to your famous deer lick?"

"O, that's all right," said the old man. "Be sure you're up to the house with your nags by three o'clock anyway."

II.

In the white house among the oaks lived a wealthy farmer—Oscar Graves.

His daughter Marian, who spent her winters in San Francisco, had as her guest at this time Florence Earl, who, although she had known Marian Graves but a short time, was rejoiced to be invited to the country-home of her charming friend.

Florence was a tall blonde, and, although she was usually very gay in society, yet her fine face with its crown of fluffy hair showed in repose a trace of gentle sadness.

Marian was a pretty little brunette, full of animation and quick wit.

The day after the arrival of Florence, the two girls were lounging in the shade of a vine-covered porch—Florence in the hammock and Marian in a great wicker chair. To amuse her friend, Marian told her the story of Borax Lake, dwelling with strong words on the frailty of the woman who had eloped with her lover, leaving her own husband probably to die.

"I don't wonder her spirit haunts the lake, do you, Florence?" she said, spiritedly.

"Do you believe in ghosts?" asked Florence, sadly.

Marian turned to her friend.

"O, Florence, are you ill?" she cried.

Florence had risen pale and trembling, and was holding by the hammock-ropes to guide herself away.

"My dear, let me help you."

"No, no!"

Miss Earl moved falteringly to the hall door, then hurried up to her room. Shortly, she came back and apologized for going away with only a little headache. But her face was very pale yet, and Marian ran and made her a cup of tea in the old adobe kitchen.

About the same hour by a deep pool in a shaded canyon several miles away, the attorney-at-law and his companion were having an earnest conversation, while their lines hung idly in the ripples and their patent flies washed against the rocks.

"It seems to me," urged Dermont, "we might have a little fun as long as it is so handy."

"What's this but fun?" said Fielding.

"Well, then, pleasure—social delectation."

"It's no use," replied Fielding, firmly, "all the bonds in San Francisco couldn't hire me to face those girls with these old togs on."

"Old!" cried Tom Dermont. "That was a new hunting-coat when we left."

"Rags now."

"O, pshaw! Miss Earl and Miss Graves won't mind; they're like old friends." Fielding laughed.

"Old friends, indeed! Two months' acquaintance!"

Dermont whistled aloud.

"Then you go pretty fast for two months! You met them at the White reception and you've had Miss Earl to two balls and three concerts and to all the new plays, and I don't know to how many other places."

"Well, then," returned Fielding, "I wouldn't insult her by going to see her with a two weeks' beard on my face and my hands as black as an office towel."

Fielding was growing firmer, and Tom looked at him ruefully.

"Well, then, have you any objection to my going over for an evening?"

"Don't tell them I'm with you," returned Fielding. "Tell them it's a sick old man."

Tom laughed.

"That will be the truth," he said. "That's what I'll tell them."

The evening when Dermont made his first call, Florence helped to entertain him. She expressed neighborly sympathy for the "sick old man" and made herself as agreeable as possible. Both Tom and Marian pressed her to play, and when she had played several long selections and they still asked for more, she concluded that they probably only wanted to keep her busy, so she gracefully excused herself from the room.

Dermont, however, stayed but a few moments after this, and Marian, not wishing Florence to know that she had not herself had sufficient attraction to keep him, went softly to her own room and went to bed.

The next day it was Florence's ill luck to receive a letter from a San Francisco friend who mentioned incidentally that Dick Fielding and Tom Dermont had gone together on a hunting trip. Fortunately, she was alone in her room when she read the letter. She was glad Marian was not there to see her catch her breath and tear the letter in a passion.

"A sick old man, indeed," she said to herself. "He deliberately insults me; he contemns me, scorns me; he shows no respect for me. In some way he has found out everything, and I am nobody in his eyes. O, this is so hard!" But there was no resentment in her heart; it was a burden she must bear alone, so she wept helplessly.

When Marian came to call her to lunch, she found her really ill, feverish and prostrated. So she brought lunch to her room, with fruit and flowers, and read to her all the afternoon from new magazines.

But Florence did not tell her friend what she had learned. By the next day she was herself again, and they went for a long horseback ride all around the pretty valley to the north. Marian thought it strange that Florence would not appear again when Dermont called, and she never went to Florence's room when he had gone away, for she did not wish her friend to know how late he dared to remain, so that Florence had to depend on herself for her evening amusements.

ROYAL

BAKING POWDER

Absolutely Pure.

A cream of tartar baking powder Highest of all in leavening strength.—*Latest U. S. Government Food Report.*

ROYAL BAKING POWDER CO., 106 Wall St., N. Y

Mr. and Mrs. Graves retired so early that they were not much company.

Florence liked to go down to the old adobe kitchen and talk to Mary, the old Indian cook, and beg biscuits to feed the ranch dogs that hung about the door.

Concluded next week.

Isabella of Castile.

Born April 23, 1451.

In that strange, steadfast light which men call fame,
That backward through the halls of time doth flow,
Piercing the shadows of the past to show
The splendid ghosts of glory and of shame,
One figure shines resplendent; the white flame
Of centuries crowns the regal brow we know,
The hands outstretched with jewels, and the glow
That rests for aye on Isabella's name.
Lo! where she waits; with high, prophetic glance
Bent like a star above the stormy main,
The queenliest queen that dwells in old romance,
The proudest gem that decks the crown of Spain;
Whose lustre over sea and land hath flown
To this new world which she did make her own.

Around her move the dull and restless throng
Of narrow lives; the fierce and sordid race,
With visions lowered from that loftier space
Which makes the earth more glad than light or song;
The poor ambitions and the might of wrong;
The craven fear that doubts the future's grace,
While she, as one uplifted for a space,
Stands like a vision, beautiful and strong.
Dear doth man hold her for the zeal inspired
That sped Columbus to his happy goal.
But dearer that the might of virtue fired
With such hot flame her pure and noble soul,
That in its light the fairest life is shown
Her sex, her country, and her faith have known.

—Mary Elizabeth Blake.

Raising Haux.

SANTA ROSA, Nov. 25.

TO THE EDITOR:—Up here in the country we sometimes have debating clubs on a small scale to discuss many topics in relation to the farm, the orchard, and dairy. Here is a short speech, which I have tried to report as delivered, about which is most profitable:

THE CHICKEN OR HOG.

I said to him, "William, which you think best to raise,
Chickens, or hogs, our ranches to graze?"
He said, "I tinks haux, 'cause dey roots up de grounts
And live on de tings of which nature abounts,
Dey live on de grass und dey live on de roots,
As dey dig, dig, dig, dig mit dere head on dere snoots.
De haug is de fellow, makes mighty good meat,
As he goes true de veat fields some stubbles to eat.
But de shickens dey eats corn und dey eats veat,
Und dey dig up de flowers mit dere bills und dere feet;
Dey eat up mine cabbage I raised to make kraut,
Yes, shickens vas de hungriest bird ever vas out!
You may raise schickens, but I told you de Dutch
All like to raise haux, 'cause dey don't *eat me so much.*"

A. T. DAVIDSON.

Always Dying.

Life, indeed, consists of a series of changes of tissue and the human economy is simply, as far as its material part is concerned, a machine, and primarily depends on food as the most important factor in keeping it in working order. When it is said that we commence to die as soon as we are born, it of course means that certain parts of the body immediately begin to perish; their existence is ephemeral, they come and go, are replenished and decay. They are the dying parts of that system of life, which may last a little while, but which must eventually yield to the inexorable law of nature. The nails, the hair, etc., are observable as an instance of this decay. The same rule applies to every other organ and tissue of the body, though it is not palpable to the naked eye. The skin is always peeling. The food that is taken in the one hour nourishes the system and ejects that which was taken the hour before. Perfect health and condition, at whatever time of life we may apply the term, from infancy to old age, depends upon the proper assimilation of the food taken, and its natural elimination when it is done with, by the different organs that have to deal with it. Of course, heredity and a few other circumstances must also be taken into consideration in estimating the chances of life. If the exact amount of food necessary to nourish each tissue of the body were taken daily, having regard to work and other circumstances, and if the economy were kept properly employed, it would mean that the individual would be in the most perfect health and condition, and ought to live to the age of a hundred years or more. But how seldom does this occur. From some cause or other more is taken than is necessary to supply constitutional requirements, and the result is that the surplus remains stored, and in some way or other acts prejudicially. If it does not cause absolute illness, it impedes vigor and elasticity, and leads to a feeling of malaise and disinclination for work, making one's ordinary occupation a burden. We are tempted to eat when we are not hungry and drink when we are not thirsty, and if we do we must pay the penalty. More than this, in this life, at all events, the sins of the father are visited on the children, and the old port drank by the grandfather yields a crop of gout in the grandson. Stimulant taken to excess in the father transmits the curse to the progeny, and they start in the struggle of life, handicapped from the first hour, and, like a racehorse with no stamina, fall early in the race.—The Gentleman's Magazine.

A Trip to a Fixed Star.

Dr. David Gill, lecturing recently on "Fixed Stars," hit upon the following adroit method to illustrate the distance to Centauri. The doctor said, as reported in the Boston *Globe:* "We shall suppose that some wealthy directors, for want of outlet for their energy and capital, construct a railway to Centauri. We shall neglect for the present the engineering difficulties—a mere detail—and suppose them overcome and the railway open for traffic. We shall go further, and suppose that the directors have found the construction of such a railway to have been peculiarly easy, and that the proprietors of interstellar space had not been exorbitant in their terms for right of way.

"Therefore, with a view to encourage traffic, the directors had made the fare exceedingly moderate, viz., first-class at two cents per 100 miles. Desiring to take advantage of these facilities, a gentleman, by way of providing himself with small change for the journey, buys up the national debt of England and a few other countries, and presenting himself at the office, demands a first-class single to Centauri. For this he tenders in payment the scrip of the national debt of England, which just covers the cost of his ticket; but at this time the national debt from little wars had been run up from $3,500,000,000 to $5,500,000,000. Having taken his seat, it occurred to him to ask: 'At what rate do you travel?' 'Sixty miles an hour, sir, including stoppages,' is the answer. 'Then when shall we reach Centauri?' 'In 48,663,000 years, sir.'"

YOUNG FOLKS' COLUMN.

Aunt Rose's Tea and Coffee.

There came a day during the civil war period when neither coffee nor tea could be bought for love or money. Our supply had given out and we were likely to be deprived of our refreshing draughts for an indefinite period.

Alas for the slaves to the tea and coffee habit! Cold water and milk must suffice them, unless skillful Aunties Rose and Vi'let could invent a substitute for the dearly loved beverages in substances independent of the blockade.

Grandma DeMar, a frail old lady of 70, wanted her tea in the afternoon. Miss Millicent DeMar was not herself until refreshed by a cup of coffee in the morning.

Aunty Rose brewed peppermint, sage, pennyroyal, spearmint, ditney, catnip, thyme, lemon balm and grated pennyroot.

She creamed the liquid temptingly and served it in the prettiest cups. She mixed flavors in the vain hope of inventing a perfect imitation of the best gunpowder tea. When grandma drained the cup, aunty's face beamed with delight.

"I'm gwine to car' ole Miss a cup o' tea," said Aunt Rose one sultry afternoon.

"Yo' gwine ter kill ole Miss wif yo' dosin' an' yo' mixin' yarbs. Yo' aigs her on to drink dem slops when hits onpleasant ter smell dar pecooliar odor," said Aunt Vi'let sniffing contemptuously the aroma arising from the sage and peppermint combination.

"Missus," queried Rose as she arranged grandma's dainty lunch, "does yo' enjoy yo' tea?"

"I—I—well I—"

"Hush, honey! Don't say nuffin' mo'. Dis cup o' tea am slops an' nuffin' else. 'Pears laik I can't fin' any yarb dat has de gunpowder tea taste. Perhaps I'll hab better luck wid coffee."

Corn bread, rye and wheat bread crusts were carefully scorched, ground and steeped in boiling water. Aunt Rose groaned over the lack of taste in crust coffee. Parched sweet potatoes did not prove satisfactory. Parched peas were not a success. Burned rye was a tolerable substitute for Rio coffee berries. Rice, corn, hominy, grits and barley were given a trial. A soldier friend smuggled to Miss Millicent several packages of coffee essence, a black substance guaranteed to add to any of the substances the real coffee aroma, if used according to directions.

The first experiment was encouraging. Aunt Rose was warm in its praises and elated at the prospect of surprising the members of the Ladies' Aid Society, which met weekly at DeMar place, with a treat of "'lasses poun' cake, an' coffee that mos' had the Mocha taste."

The ladies came upon the appointed afternoon. The lunch table was prettily decorated. The 'lasses cake and Johnny bread reposed in silver baskets.

Aunty Rose proudly displayed her pot of hot coffee, urging the ladies to drink "mo'n one cup," as her "imitation coffee was mos' as good as de gennywine."

Truly the amber liquid did resemble the Mocha served in the days of peace and plenty. White hands were eagerly extended for the cups containing the delicious draught.

Alas! one sip was a great sufficiency.

"Rose! Rose!" called Aunt Vi'let from the kitchen. "Git dem cups quick."

"Ooo me! Oooo me!" groaned Aunt Rose. "You'll hab to gedder up dem cups. I can't face de ladies an' tell 'em 'bout a cake o' soap gittin' in de coffee b'iler. Ooo-oo me! It's a jedgment sent on me for bein' proud ob dat coffee."

"Wash out de b'iler an' make 'em some fresh coffe," advised Aunt Vi'let. The second experiment was warmly praised by the ladies, and Aunt Rose was happy.

John Liked Fun.

John was tricky. Those who thought him a "beauty," smart and obedient, knew that he was mischievous and full of his "jokes."

John certainly did have a love of fun in his "make-up," which made him a jolly companion for four boys, who in turn did like to "plague the poor old chap," the family horse.

John was black-coated, strong and intelligent. He never kicked, balked nor ran away, being sober and well-conducted when driven or ridden by the senior member of the family.

He had a fondness of his master, who petted him a great deal. The women could drive him. He brought them home in just the same condition they started out. It was only with the boys of the family that John ventured to "joke."

There were four of them, Ernest, Walter, Henry and Albert, bright young fellows, who delighted to tickle John's nose with a fragrant-smelling apple, snatching it away when he prepared to enjoy it.

John was a pig in his love for mellow, ripe apples. The boys thought it fun to tease him a little, and make him anxious to get it before giving it up to him.

They really did teach him to play "hide and seek" with them.

One of his tricks was to sigh and swell up his body when being saddled, if one of the little boys was about to ride him.

Of course, the saddle was invariably turned after he had ridden a little distance.

Another trick was snatching a cap from their heads and galloping away with it to the farthest corner, whinnying defiance to the capless youngster.

One May afternoon, as I sat beside a window, some boyish voices called, "we are going to ride out to Muddy Fork. John is lazy; don't have enough to do."

John looked at me, and I plainly saw fun in his eyes. He made a nip at an apple geranium, and then went along as sober as judges are said to be.

His expression plainly said to me: "These four boys seated upon my back are hunting for fun, I'll help find it.'

Ernest and Albert whistled gayly. Henry and Walter urged "lazy bones" along.

"Such a good horse as he is. It isn't every one that would carry such a load of restless boys," was my thought, as John slowly crept along, head down, apparently meditating deeply.

In an hour four boys, wet and muddy, walked in at the gate, angry and ready to "have it out with the sly old horse."

"What has he done?" I inquired.

"Done?" chorused the indignant quartette of boyish voices. "He poked all along, as if he was almost asleep, until we got into the water. All at once he lay down, spilled us off his back and just galloped back home."

"He did it on purpose, of course he did. He thinks he can play tricks on us little boys. He don't dare try 'em with men."

"I'd like to pound his back," said one.

We went to the back gate and saw him standing there, looking meek and subdued, only—I detected a twinkle in his eyes.

He received a scolding, which he did not heed. A few minutes afterward I saw him in the stableyard with four boys perched upon his back.—The Prairie Farmer.

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DEPARTMENT F

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Extra homemade Mince Meat, 15 and 25-lb. pails, $1.80, 3.00.
Condensed Mince Meat, new, 1-lb. packages, 10c.
Extra California and Imported Preserves, jars dozen, $2.00, 2.50.
Columbia Maccaroni, 1-lb. cartoons, 12½c.
Extra mountain-grown, ranch packed choicest Cal. extra Table Fruit, assorted, doz., $2.10.
Extra grated Pine Apple, Bahama, dozen, $2.50.
French Sardines, key opener, Racing Club, dozen, $2.00.
Extra new Sugar Corn, dozen, $1.30, 1.40, 1.50, 1.75.

DEPARTMENT R

Raisins, new, loose, Muscatel, lb., 5c.
Eastern Dried Blackberries, lb., 12½c.
New Leghorn Citron, lb., 25c.
Lemon and Orangepeel, lb., 20c.
Zanti Currants, 7 lbs., 50c.
New Cal. Prunes, lb., 7c, 10c.
Finest Silver Prunes, lb., 13c.
Figs, new Cal. black, lb. 5c.
Fancy new Dried Peaches, lb., 12c.
New paper shell Walnuts, lb., 12½c.
New paper shell Almonds, lb., 18c.
New soft shell Almonds, lb., 15c.
All new mixed Nuts, lb., 12½c.
New raw Peanuts, lb., 5c.
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Boys' Wheel Barrows, large, each 50c.
Ladies' fancy Cups and Saucers, sets 25c, 75c.
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Elegant Lamps, large assortment.
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Printed Bowls, new style, each 10, 12½, 15c.

DEPARTMENT K

Fancy Christmas Candies, 4-lb. boxes, 50c.
Fancy Christmas Candles, all sizes, per box, 20c.
New Cape Cod Cranberries, per gallon, 50c.
New Formosa Oolong Tea, 50c, 75c.
Durkee's Salad Dressing, 25c, 50c.
New California and Eastern Cream Cheese.

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AGRICULTURAL NOTES.

CALIFORNIA.

Butte.

OLIVES ON VOLCANIC LAND.—Oroville *Register:* Joseph Curtis, of Pentz, brought to town with him on Tuesday a branch of olives cut from a four-year-old tree of the Razzo variety. The olives are of medium size, smaller than the Mission but larger than the Picholine, and are round and plump. Some oil made from the same shows very clear and bright. The trees are growing on a very high rocky plateau where the soil is of volcanic formation and the young trees are very strong and vigorous. Mr. Curtis has 500 trees and most of them are of this variety, though he has some Mission and Picholine trees. We are told by parties who recently visited the locality that the olive plantation is one of the finest for its size there is in the county. The little trees when planted four years ago were only ten inches high.

OLIVE YIELD.—*Mercury:* Fogg & McLaughlin will soon have a bonanza in the magnificent 40-acre olive grove in Thermalito. Some of the older trees are just beginning to bear, and this year the yield is estimated at about 1500 gallons. About 400 gallons have been gathered, and Mr. Fogg is putting them through the cold-water process preparatory to pickling them. In the center of the grove he has a number of troughs with a hydrant at each. The water is changed daily. It requires 30 or 40 days to soak out and then the olives will be pickled. In a few years more that grove will yield its owners a princely income.

A GOOD YIELD OF ORANGES.—Oroville *Mercury:* Joe Gardella has less than two acres in bearing orange trees and many of these trees are just beginning to bear fruit. Yet he will have about 400 boxes of fine oranges, which he has sold at $1.40 a box on the trees. He has perhaps one acre in good bearing seedlings. Here we have $560 from less than two acres of young trees.

Orange.

SHIPMENTS OF FRUIT.—Santa Ana *Blade:* As an evidence of what this valley can and does do in the production of deciduous fruits, a statement of the shipments made of dried fruits during the season will be sufficient to convince the most skeptical that we have a grand country, and yet a beginning has hardly been made in the development of its resources. During the season just passed there have been shipped from this valley, by the several fruit-drying companies, the following: Apricots, 33 cars, containing 10 tons each, valued at $2200 per car. Peaches, 7 cars, 10 tons each, valued at $3000 per car. Prunes, 4 cars, 10 tons each, valued at $2200 per car. And to-day a carload of raisins was shipped to Chicago by the Earl Fruit Company, the first since the vine disease destroyed the old vineyards.

Sacramento.

SHORTAGE IN TREES.—Sacramento *News:* "We have already received orders for over 400,000 fruit-trees," said C. W. Reed. "Instead of the order for hundreds of trees which came during this season in former years, they are now coming in by the thousands. It is quite astonishing, the rapidity with which California's broad acres are being turned into orchards. Notwithstanding the fact that the nursery stock which will go upon the market this season is larger by almost 50 per cent than ever before, there will be a shortage of trees. The prospects are that the leading varieties for large plantings will be gone before half the season is over. The popular demand has a wide range this year, including prunes, peaches, pears, apricots and many other varieties. This last fact is interpreted by nurserymen as a favorable indication, as it prevents fruitgrowers from running to one variety and overfilling the markets with that fruit. It also proves that the experience of the orchardist has convinced him that there is money in almost any kind of fruit. The demand indicates a normal condition of the orchard business on the coast, and that growers are looking not only to the shipping business, but drying and canning fruits. Mr. Reed said that while there was not an unusually large demand for vineyard stock, the inquiry for nut-bearing trees was quite astonishing. The almond will be planted largely in the Sacramento valley this winter. Near Sacramento City, Florin and Elk Grove, there will be an increased acreage of berries the coming season. The soil is well adapted to the growth of small fruits, and the past year has demonstrated that handsome profits can be realized.

San Bernardino.

ORANGE PURCHASES.—Redlands *Fact:* The Haight Fruit Company has received orders for several cars of oranges for the holiday trade from California cities. The shipments will be made from the 10th to 15th of December. The same company is sending out from three to four cars of raisins a week.

San Luis Obispo.

DAIRYING AT OIL CREEK.—Cor. S. L. O. *Tribune:* Dairying has commenced very slowly this season. Mr. Buffington has about 15 fresh cows; Mr. Mables about 20.

Santa Clara.

READY FOR PLOWING.—Gilroy *Gazette:* The farmers had good cause for thanksgiving yesterday in the shape of a copious rain, enough to enable them to set the plows at work. The hills around us are already putting on a spring like look, and those trees along the railway appear ever so much invigorated by the timely moisture.

San Mateo.

APPLES AROUND PESCADERO.—Cor. Redwood *Times-Gazette:* Apple-gathering is now about finished. The quality is fair, but hardly up to the usual standard of quantity. Much fruit seemed to drop off before being fully matured. The reason does not seem to be well understood, and constitutes a problem for the best orchardists. When in the neighborhood of San Jose lately, we found the same condition of things had been felt there to some extent. All fruit-raisers seemed to feel the importance of this. Whoever can explain and prescribe a remedy will be a benefactor to his fellows.

Sonoma.

STARCH FACTORY AND CREAMERY.—Petaluma *Courier:* J. M. Striening, the projector and prospective manager of the starch factory and creamery which will soon be built in this city, contracted with J. Cavanagh for the necessary lumber, and within two weeks the buildings will be started. Thenceforth operations will be prosecuted with the utmost energy and dispatch and hurried to completion. The main building will be a two-story structure 50x100 feet, and there will be besides a boiler and engine-room, a dryhouse (two stories) 25x50 feet, warehouses and outbuildings.

Stanislaus.

BEARING LIME TREES.—Modesto *Herald:* On J. H. Hardesty's premises, on the west side of the railroad track, is to be seen a novelty for this section in the shape of three lime trees, bearing ripening fruit and blooms at the same time. The trees are eight years old and are the only trees of the kind in the city, as far as we can learn. This is the first year that they have borne fruit. To all appearances, the product is equal to any to be found in our stores, being large, sound and free from blemish. With the completion of the irrigation works, Stanislaus is sure to take high rank as a stockraising, agricultural and horticultural county. In fact, we are confident that with her soil and climate irrigation will eventually render her the foremost county in the State in these respects, and the citrus fruit industry will not be an unimportant one. With orange and lime trees flourishing in this city and yielding an excellent quality of fruit, it stands to reason that with proper attention the cultivation of this industry can be made a profitable source of occupation and investment.

Tulare.

A MARKET FOR HORSES.—Hanford *Sentinel:* The stockraisers of this part of the county could furnish the stock for loading several carloads of horses for shipment. The attempt to find a market in some State beyond the Rocky mountains should be made. No country on earth can raise horses cheaper than this. Our pastures will feed more per acre and it costs but little for shelter. What is needed is a market where the horses can be disposed of and give breeders room for further breeding. Some sort of organization should be formed to seek and find a market.

Yolo.

THE PLANTING SEASON.—Woodland *Democrat:* The nurserymen have received large orders for trees to be delivered this season. The rapidity with which the grain-fields are being converted into orchards is astonishing. The almond and other nut-bearing trees will be planted largely in this valley. The acreage of berries will also probably be increased. The popular demand has a wide range this year, including prunes, peaches, pears, apricots and many other varieties.

ARIZONA.

RIPE ORANGES.—Yuma *Times*, Nov. 16: Yuma is entitled to the credit of the first ripe oranges this year. In the yard of John Gandolfo can be seen a Navel tree with fruit fully colored and in good marketable condition. This is far ahead of anything in California. Oranges there are perhaps just beginning to show color at this time and will be passably good at Christmas. For the holiday trade the fruit usually commands $5 and $6 per box in San Francisco. There is no doubt that Yuma can furnish fully ripe fruit a month earlier than that for Thanksgiving tables. Just at this time of year fresh fruit is nearly all gone, and heretofore there has been nothing until oranges ripened. The blank will be supplied by Yuma. Here is the home of the orange and lemon. There is no doubt that when Yuma's fruit becomes a factor in the market, it will have no competition. The fruit of no other section will be ready, and the gilt-edge prices go to the first in market.

NEVADA.

HONEY SHIPMENTS.—Reno *Gazette:* Mr. Ball recently shipped East a carload of honey, from which he will realize $3000, clear of freight charges. Messrs. Frey, Sherman and Little clubbed together and loaded another car for the same market, from which they will net $2700. The sum of $5700 is not bad medicine to take for the proceeds of the industry of the busy bees on four ranches, all of which are in the immediate vicinity of Reno.

NEVADA COMB HONEY.—Reno *Gazette:* W. K. Ball, who recently shipped a car of comb honey from Reno to Medina, Ohio, received the following complimentary notice in a journal published at that place: "Relative to our car of comb honey just received, we desire to say that it is the finest lot of comb honey we ever set eyes on, and you do not have to credit our eyes alone for this assertion. All who have seen it add a like testimony. J. A. Buchanan of Holliday's Cove, W. Va., who handles many tons of honey every year, and is a good judge, writes, in remitting for 18 cases received: 'This is the finest lot of honey we have had for years. It came in perfect condition.' Some brokers in Cleveland wrote, inquiring prices, and when they found our prices one to three cents higher than they had been paying for good, white honey, they thought they could not do anything with it; but after seeing it, they changed their minds, as the orders are coming in freely from them."

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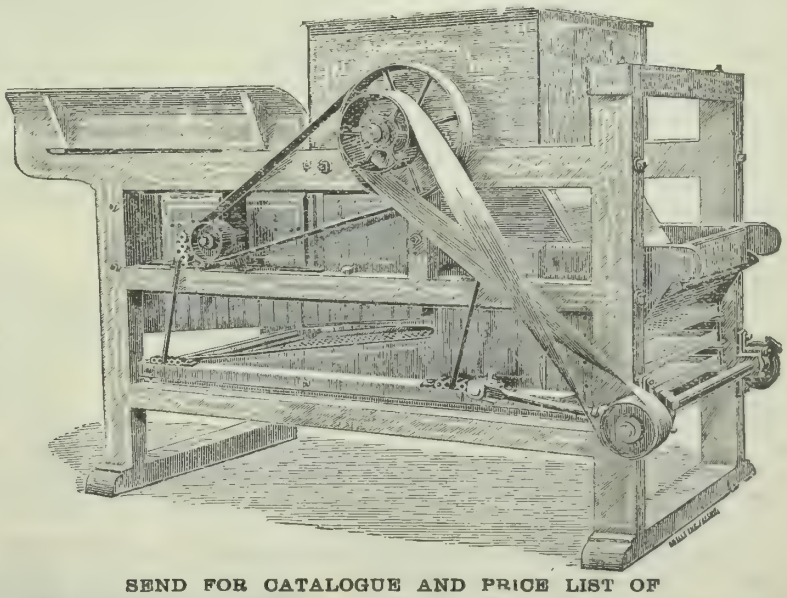

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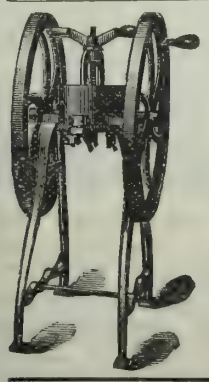

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Horses Should Wear Light Shoes.

Horses are commonly made to carry too heavy shoes. The shoe is designed merely to protect the hoof, and the lighter it can be made and still serve its purpose, the better for the horse. Horses that are devoted to farm work, and on land where there are few or no stones, may dispense with shoes, except while the ground is frozen. This would be of great advantage to the horse, to say nothing of the saving in the horseshoer's bill. But most horses require shoeing, and the shoes worn are heavy iron ones. Steel shoes can be made lighter, will wear longer, and the first cost is not so much more that it need prevent their being used. Light horses and driving horses should always use them. For horses of 1,100 pounds weight, and with well shaped, upright feet, the fore shoes should weigh about one pound each, and the hind ones twelve ounces. If four ounces are added to each shoe, let us see what a difference it will make. In plowing, cultivating, mowing reaping and many other farm operations, a horse will walk from ten to twenty miles a day, and advances about four feet at a step. At each step the horse lifts half a pound extra on its two feet, or six hundred and sixty-six pounds in every mile. In a day's work of fifteen miles the horse would lift nine thousand nine hundred pounds extra, or nearly five tons. If the force required to lift this five tons of iron could be expended in the work the horse is doing, much more could be accomplished. In the light of these facts, is it any wonder that when young horses begin to wear shoes they soon become leg-weary, have their step shortened and acquire a slower walking gait?—American Agricuturist.

Steamers of the World.

The new list of the merchant marine compiled by the Bureau Veritas, which is now in press, gives some interesting statistics concerning the great ocean steamship companies of the world.

Some people will be surprised to learn that the transatlantic lines are not the leading ones in aggregate tonnage or number of vessels. The British India of Glasgow and the British India Steam Navigation Company and the British India Associated Steamers, all one concern, head the list with 103 steamships. Their aggregate measurement is 293,635 tons.

Next stands the Peninsular and Oriental Steamship Company with 36 steamships, representing 216,887 tons. Next in order comes the Compagnie des Messageries Maritimes with 61 vessels, whose aggregate tonnage is 202,522. The fourth on the list is the Norddeutscher Lloyd of Bremen, some of whose vessels ply to this port. This company has 66 steamers, measuring in all 197,169 tons.

Other important lines are the Navigazione Generale Italiana, 106 steamers, 170,755 tons; the Compagnie Generale Transatlantique, 66 steamers, 167,487 tons; the Hamburg-American Packet Company, 56 steamers, 165 442 tons; the Wilson Line, 86 steamers, 158,089 tons; the Austrian Lloyd, 73 steamers, 128,359 tons; the Allan Line, 39 steamers, 123,038 tons; the Spanish Compania Transatlantica, 34 steamers 95,163 tons; the White Star, 20 steamers, 95,370 tons, and the Cunard, 26 steamers, 8[illegible],913 tons.

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IN experiments on the influence of food and surroundings on the color of animals, Mr. E. B. Poulton reared caterpillars of the pepper moth under different conditions. Those confined among green leaves and twigs become green, those having black or brown twigs mingled with their food were brown or black, and others were turned light-colored by white pepper. With artificial colors, red and blue tended to produce a dark coloration, though, very strangely, painted twigs had not the same effect as those with the same natural tints.

THE year of greatest growth in boys is the 17th; in girls the 14th. While girls reach full height in their 15th year, they acquire full weight at the age of 20. Boys are stronger than girls from birth to the 11th year; then girls become physically superior until the 17th year, when the tables are again turned, and remain so. From November to April children grow very little and gain no weight; from April to July they gain in height but lose in weight, and from July to November they increase greatly in weight, but not in height.

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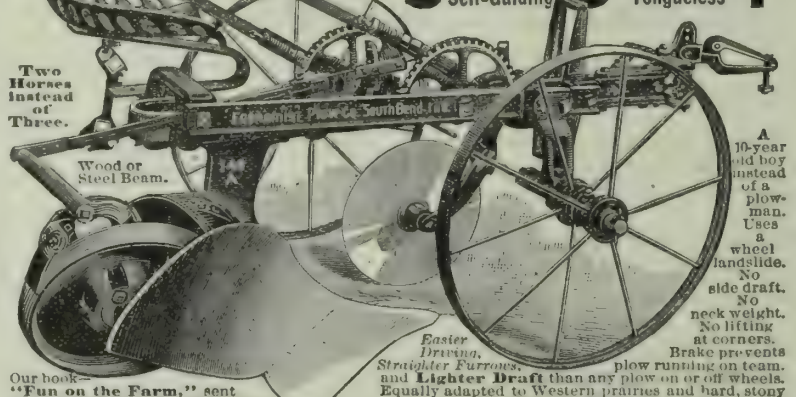

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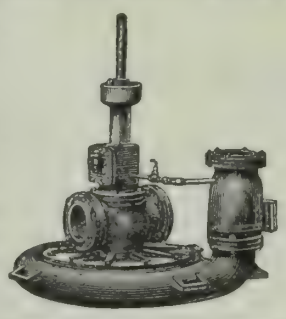

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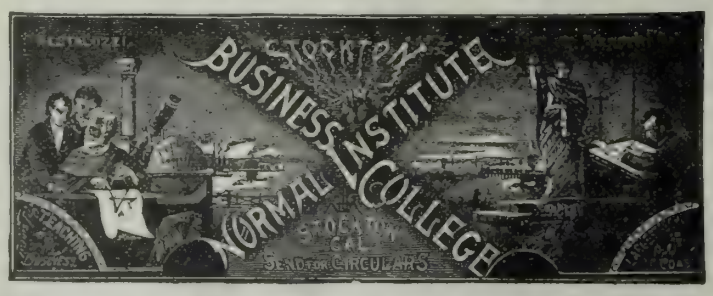

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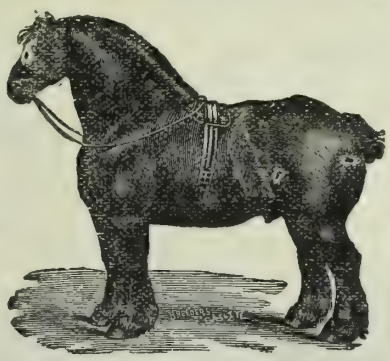

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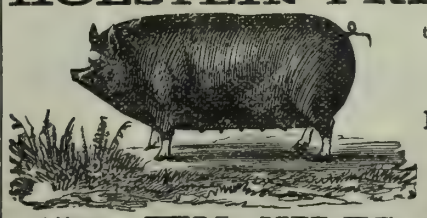

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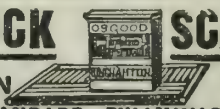
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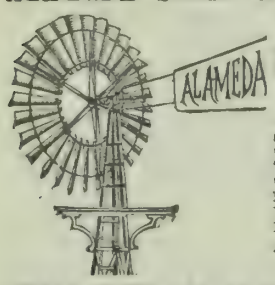

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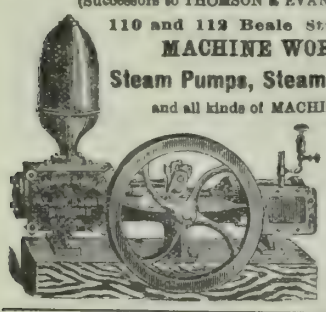

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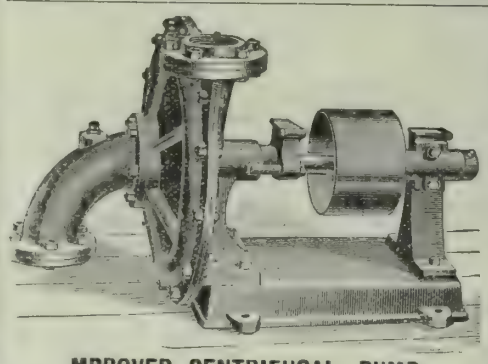

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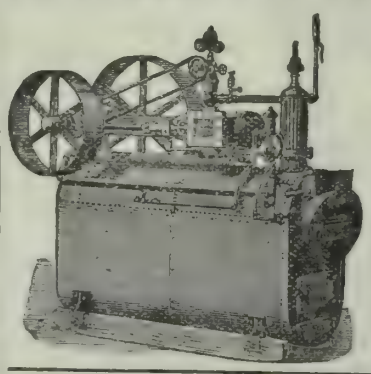

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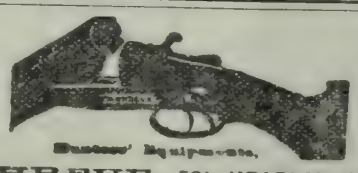

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S. F. Market Report

Market Review.

San Francisco, Nov. 30, 1892.

General trade the past week has been interrupted by heavy storms. While temporarily interfering with traffic, yet the generous downpour and well-distributed rains are received with unmistakable signs of relief; for, up to a week ago, fears were quite generally expressed that we would have a dry winter, which, following the two past dry winters, would prove disastrous to crops in many localities. It is said by nurserymen that in some localities trees made this year a poor growth, owing to a lack of moisture in the ground. The present rainstorms, following the light storms in October and also in the fore part of this month, are giving the ground a good soaking, which will afford a reservoir of moisture that will insure crops for one or two dry winters. Mr. Van Every, of the Grangers' Business Association, says that, previous to the present rains, in dry land in the Santa Clara valley, he dug down and found the ground moist for a foot deep. With the present rains the moisture must be considerably deeper in that valley and elsewhere. The rains have interrupted, to a large extent, trading in farm produce, particularly grain and feedstuff; but with clear skies, large buying should be the order. The local money market is fairly easy for the season of the year. It is said that the present rains will tend to untie funds which were locked up against a dry-winter scare. With returned confidence, that we are to have, large crops and an abundant supply of water for mining, money ought to be in more liberal supply and gilt-edged paper be sought.

Cereals.

The foreign wheat markets have settled to lower figures. This decline, it is said, is largely due to foreign manipulation. In discussing the situation the Mark Lane *Express*, Nov. 14th, says that English farmers will make another struggle, and, while the acreage which will be devoted to the grain will be less in 1893 than it was in 1892, yet they think that better prices will obtain. The impression that higher prices will rule is based on the favorable outlook for bimetallism. On this subject the *Express* says: "The unanimous decision of the Central Chamber of Agriculture in favor of bimetallism, and the enthusiasm with which Mr. Balfour's leadership in the same direction has been accepted by the great industrial centers of Lancashire, indicate, however, a growing impatience with the existing state of affairs. Into all the recondite issues of currency questions it is not likely that farmers will ever care to go, but a rise in the price of silver would be the first outcome of bimetallism being legalized, and a rise in silver means a reduction in Indian and Russian wheat shipments to the United Kingdom. Of the wheat on passage at the present moment, it will be seen from the figures that we give lower down that 15 per cent is coming from the two silver countries, while during the cereal year ended August 31st last, the estimated excess of imports over requirements was 14 per cent. Thus the cessation of Indian and Russian competition on our markets would presumably bring about of itself an equilibrium in value. The exact prices likely to prevail when supply and demand were almost exactly balanced cannot be prophesied with safety, but a year ago, when Russia ceased shipping, Calcutta wheat rose to 40 shillings, or 5s. above the previous November. If India as well as Russia ceased to ship, the rise would probably be double 5 shillings; in other words, the red winter American wheat now pressed on sale at 28s. per qr. would admit of being held for 38s., and, as the competition of the foreigner decreased to this extent, there would be a natural recovery on English wheat values. Bimetallism, on the whole, might be expected to give us a fairly steady 40s. average for English wheat, but there would be a corresponding and coincident rise in all products from the silver countries, such as feeding barley, oats and petroleum from Russia, and oilseeds, opium and tea from our Indian dominions." At this writing the proceedings of the Monetary Conference warrant the assertion it will result in pointing the way to an international agreement to rehabilitate silver. In our local market wheat has been dead. The rains have made it impossible to load vessels, and when this obtains export buyers withdraw from the market in expectation of lower prices. As yet large holders do not manifest any uneasiness, believing that after the turn of 1893 better prices will rule.

Barley has fluctuated on Call for futures, closing weak, but in the sample market, while the tone is weak, yet no lower quotations are reported. Commission merchants say that a parcel forced on the market would have to be sold at lower prices. The rough weather will stop receipts. It is said that with the starting of plows and cultivators there will be a large demand for roll barley. The Hawaiian Islands are drawing quite freely.

Oats have held to fairly firm prices throughout the week. Receipts are only fair, with the bulk coming in held by strong parties. Oregon has light supplies to draw from. There is a fair demand for black for seed.

Corn has ruled weak and in buyers' favor, with a weak and easy tone at the close. There is only a moderate demand for local consumption and very little for export. To-morrow (December 1st) the old Mexican duties will go into effect, which will operate against shipments to that country.

Rye and buckwheat have held fairly firm throughout the week.

Feedstuff.

Owing to heavy rains the demand for ground feed for the moment is slack, and consequently parcels forced on the market are met by lower bids from buyers. It is quite generally claimed that after the rains, with clearing skies, a free demand will set in for roll and ground feed.

Hay at this writing is weak, with buyers bidding down. The weaker feeling is due to a growing impression that pastures will afford feed for range stock and also a fair supply for dairy cows. Of course this opinion is largely predicated on growing weather following the rains.

Dairy Produce.

Butter is very weak, and only in exceptional cases can outside quotations be secured; even thus it is in a jobbing way. Fresh milch cows are coming in at several of the dairies, and if warm weather follows the present rains we can reasonably look for a liberal increase in the production of butter. The stock of pickle is large and pressing the market.

The market for cheese is steady, but no higher. It is difficult to get over 11½ cents for gilt-edged mild new. Filled cheese move off fairly well to cheap restaurants and cheap dealers.

Eggs are weak. Although it is said that in box-jobbing lots a slight advance over quotations is obtained, yet higher quotations would be misleading. The market closes weak, with a tendency to lower figures.

Vegetables.

Rains the past week have made it possible for gardening to be pushed with vigor as soon as the skies clear to admit of outdoor work. The first consignment of asparagus sold at 75 cents per pound. It came from the Sacramento river. The crop, it is said, promises to be large.

Tomatoes and all vine vegetables are going out, and any free from frost fetch good prices.

Onions are moving off fairly free. The forepart of the week under review, choice sold up to $1, but afterwards shaded off under free receipts.

The speculative movement in potatoes, reported in our issue of two weeks ago, has brought about higher prices in all varieties. There has been, and continues to be, a large shipping demand for the more choice. This demand we predicted fully two months ago. Sweet potatoes are steady.

Fruit.

Poor apples are in over supply and are moved with difficulty. Choice apples are wanted, with something extra scarce. Poor pears are slow, but choice are quick. Persimmons have slow sale.

The first consignment of ripe Washington Navels was received by the Judson Fruit Company on November 23d. They sold at $7.50 per box. The consignment consisted of seven boxes and was sent in by E. B. Ward from Oroville. Messrs. Wetmore Bros. received a large consignment from Riverside, which, it was said, was split and poor. Other consignments of green came in. They were hard to sell. The Mandarin oranges this season are poor and hard to sell.

Contracts have been made for regular delivery of Butte county oranges to consumers December 10th.

The dried fruit market is slow. Buyers appear to be confining their purchases largely to parcels which are forced on the market. The impression prevails that after the turn of 1893 quite an improvement in the demand can be reasonably looked for, but at present forced offerings are met by low bids.

The raisin market is essentially unchanged. Choice goods are well maintained. Our telegraphic advices give a fair idea of the situation at the East. Eastern buyers look for forced sales before long, for which they appear to be holding back. Large operators look for a freer demand next spring than has obtained for several years.

Live Stock.

For bullocks the live stock market appears to be tending up, owing to the cattle being too poor in the southern part of the State to admit of marketing, and as the supply has to come chiefly from Nevada and stall-fed localities in this State, stockmen will naturally ask more money. The roads may interrupt deliveries. Mutton sheep are stronger. Hogs are steady.

Miscellaneous.

The receipts of Wool are light. The market is quiet, with only little business doing, owing to light business and broker's assortment.

Hops are quiet. Buyers are bearish and trying to get lower prices than English advices warrant. The supply of homegrown in England is about all sold, which has turned brewers largely to Pacific Coast hops. At last mail advices the tone of both the English and German markets was strong.

There is a more active demand for garden seed, alfalfa and grass or pasture seed.

Poultry held weak up to Monday, when under speculative buying, prices were advanced. Yesterday and to-day the market was very strong.

Rains have made the roads so bad that farmers' deliveries are slow, and as there are few on the way from the East, stiff prices are expected to rule.

Beans are weak but no lower. Receipts are only fair. To force a consignment on the market a slight concession would be necessary to effect a sale.

Honey is steady. Receipts are light.

There is a light call for nuts, but holders expect a freer call for the home holiday trade.

Produce Receipts.

Receipts of produce from all sources at this port for 8 days ending Nov. 29 '92, were as follows:

Flour, qr. sks	217,326	Bran, sks	16,015
Wheat, ctls	282,226	Buckwheat "	1,988
Barley, "	21,817	Middlings "	8,825
Rye, "	945	Chicory, bbls	288
Oats, "	15,990	Hops, "	212
Corn, "	4,048	Wool, "	291
*Butter, "	505	Hay, ton	2,312
do bxs	324	Straw, "	68
do bbls	2	Wine, gals	271,600
do kegs	8	Brandy, "	44,020
do tubs	....	Raisins, bxs	21,440
do ½ bxs	39	Honey, cs	....
†Cheese, ctls	625	Peanuts, sks	60
do bxs	9	Walnuts "	452
Eggs, doz	15,410	Almonds "	388
do " Eastern	99,600	Mustard "	69
Beans, sks	8,834	Flax "	260
Potatoes, sks	35,171	Popcorn "	....
Onions, "	4,101	Broom corn, bbls	120

*Overl'd, ... ctls. † Overland, 389 ctls.

Markets by Telegraph.

Wool Quiet but Firm.

New York, Nov. 25.—Bradstreet's says: In the wool markets the demand is light and sales small. There is no speculative feeling noted, and manufacturers are buying only enough wool to meet immediate requirements. Goods markets are being watched more closely, and it is reported that every means will be employed to prevent overproduction. The demand for woolen goods has been unusually strong and the outlook is favorable. The increasing importation of goods has been the subject of comment. Wool prices remain as they were two weeks ago, when they had reached what the dealers considered the "bottom." The demand for fleeces is still fairly strong, but the supply is so light that only a few first-class lots can be found. Fall Texas wools are being taken quite freely compared with the way other grades are selling. Territories are moving slowly. Pulled wools are quiet. Australian wools are firm, owing to the advance in foreign markets. Carpet wools are quiet, but dealers are looking for a better trade, as there are indications of a better movement in carpets. Prices of ingrain carpets have been advanced 5 per cent.

New York, Nov. 25.—The market has lost none of its former solid position, while confidence is increasing in unwashed clips. There is a strong indication that an advance will attend the sale of Colonial wools to open this week. Sales at New York were 242,000 lbs of domestic, also 151,000 lbs of foreign. Sales at Boston—1,709,500 lbs of domestic and 362,700 lbs of foreign.

Hops Are Quiet but Steady.

New York, Nov. 28. — Primal State districts continue to control a large share of the business. This, with liberal exportations, mostly consigned, prevents material spot accumulations. Prices range as before; in fact there is no stimulating feature. Regular export buyers are waiting to learn the result of lots gone forward and brewers can obtain good bargains here or in the interior at 20@21c. Export State are held at 23@25c. Pacifics have made full spot figures and good round lots of olds have been placed. Exports for the week, 2616 bales.

Grapes Selling High.

New York, Nov. 27.—Grapes wind up at big prices. Tokays, single crates, $1.70 to $3.65; double sold at $4.35, $6.80 to $9.10. Cornichons, double crates, $4.15 @4 80; half crates, $2@2 65; Muscat, $1.60@1.90; Emperor, $1.55@2.80; double, $4.10@4.65. Scientific cold storage is to desirably extend our use of California grapes. Experiments this year prove the Cornichon to be an elegant keeper, and we shall eventually have what has long been needed, Pacific grapes for New Year tables. The steamship Ethelwood from Florida to England took 9566 boxes of oranges.

Choice Raisins Moving Off Well.

New York, Nov. 28 —The market for Californias is in only fair shape. There is a seasonable depression of activity, but sellers have to shade prices to keep it alive. We are feeling the loss of much of the early trade that was snapped up by cheap Valencias this fall, and now there has to be considerable drumming for business. This, of course, operates against firm prices. Perfect lines and guaranteed samples move well, but a perplexing feature just now is the undue disparagement given by buyers to many lots only slightly off in quality. Three-crown loose bags bring 5@5½c; two-crown, 4c; three-crown boxes, prime, $1.50@1.65; the lower price for the greyhound brand and the other for prime faced. Twos of useful merit are quoted at $1.25@1.35. Layers ranged at $1.60.

Dried Apricots Strong; Other Lines Steady.

New York, Nov. 28.—Apricots—The market is decidedly strong. Buyers have reappeared, paying 15 @15½c for sacks and 16@16½c for boxes. Prunes are slow of sale, the trade running towards goods of a more holiday character. Sacks are quoted: Spot, four sizes, 10½@11c; boxes, 11½@12c. Unpeeled peaches hold their own. No outside lots have yet appeared on the market. Fair to best marks are quoted at 13@16c spot.

California Wheat Depressing the English Market.

London, Nov. 28.—*Mark Lane Express:* Farmers are selling little wheat. They refuse to take under 28s., and rather than accept less they say they will feed their grain to stock. There has been an average decline of 6d. Foreign wheat is continually arriving and pushes the stocks of foreign flour into rural markets. Minnesota flour has been offered in small country towns at a guinea a sack of 280 pounds. The present depression is largely attributed to excessive shipments of California. Barley is 6d. lower. Oats and corn 2d. lower. To-day's English wheat was dull; American firm. Flour 6d. lower. Oats steady and in excessive supply.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	Nov.	Dec.	Jan.	Feb.	Mar.	April.
Thursday	....	....	....	....	....	....
Friday	5s09¾d	5s10 d	5s11 d	6s00½d	6s01 d	6s02 d
Saturday	5s10 d	5s10½d	5 11½d	6s00½d	6s01½d	6s02½d
Monday	5s09½d	5s09¾d	5s10¾d	6s00 d	6s01 d	6s02 d
Tuesday	5s09½d	5s09¾d	5s10¾d	5s11½d	6s00½d	6s01½d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market for P. S.
Thursday	....	....	....	
Friday	32s9d	32s9d	32s6d	Very quiet.
Saturday	32s6d	32s6d	32s6d	Rather firmer.
Monday	32s6d	32s6d	32s6d	Quiet but steady
Tuesday	32s6d	32s6d	32s6d	Quiet.

San Francisco.

WHEAT.

	Seller '92.	Dec.	Jan.	May
Thursday, highest	....	....	....	....
" lowest	....	....	....	....
Friday, highest	....	131⅞	....	135¼
" lowest	....	131⅜	....	135
Saturday, highest	....	130¾	....	135¼
" lowest	....	130½	....	135¼
Monday, highest	129	130¼	129⅝	134⅜
" lowest	129	129⅝	129⅝	134⅜
Tuesday, highest	....	129½	....	134¼
" lowest	....	129	....	133⅞

The following are to-day's recorded sales on Call:

Wheat—Morning—Informal: May—100 tons, $1.33⅝ per ctl. Regular session: May—700 tons, $1.33½; 1200, $1.33⅝ per ctl. Afternoon: May—900 tons, $1.33⅝; 200, $1.33⅜; 600, $1.32½. Buyer December—100 tons, $1.28⅜; 60', $1.28⅝ per ctl.

BARLEY.

	Seller '92.	Dec.	Jan.	May
Thursday, highest	....	....	....	....
" lowest	....	....	....	.
Friday, highest	....	87⅞	....	90⅞
" lowest	....	87	....	90⅝
Saturday, highest	....	*90⅞	89⅞	92½
" lowest	....	90	89½	91½
Monday, highest	....	*91	90⅞	92½
" lowest	....	91	90	92
Tuesday, highest	....	89	....	91½
" lowest	....	88	....	90⅝

*Buyer option.

The following are to-day's recorded sales on Call:

Barley—Regular session: May—100 tons, 90½c; 300, 90⅝c; 400, 91c; 100, 91¼c; 300 91½c. January—200 tons, 89¼c; 100, 89c. Buyer December—100 tons, 90c; 200, 90½c. December—100 tons, 88½c; 200, 88c per ctl. Afternoon: May—600 tons, 91¼c; 400, 91½c. December—100 tons, 88⅝c. Buyer December—300 tons, 90c; 100, 90½c per ctl.

Eastern Markets.

The following shows the closing prices per cental of wheat for the past week at

New York.

Day.	Nov.	Dec.	Jan.	March.	May.
Thursday	....	....	....	....	....
Friday	127⅞	128½	131	136	139⅜
Saturday	128	128¼	129	136	139¼
Monday	128	128½	131	136	139⅛
Tuesday	127	127	130	134⅞	138⅝

Chicago.

Day.	Nov.	Dec.	May
Thursday	....	....	....
Friday	120	120½	131⅞
Saturday	119¼	120	131
Monday	120	120½	132
Tuesday	....	119½	131½

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

November 30, 1892.

Limes, Mex	2 50 @ 3 50	Beets, sk	— @ 50
Do Cal	— @ —	Carrots, sk	30 @ 50
Lemons, box	— @ —	Okra, dry, lb	8 @ 10
Do Sicily choice	6 50 @ 8 00	Parsnips, ctl	1 00 @ 1 50
Apples	40 @ 65	Peppers, dry, lb	7 @ 8
Do Choice	75 @ 1 25	Do grn Chili, bx	50 @ 75
Do Extra choice	— @ 1 50	Do do Bells	50 @ 75
Grapes, pr bx —		Turnips, ctl	— @ 60
Do White	25 @ 50	Cabbage, 100 lbs	60 @ 70
Do Black	50 @ 1 25	Garlic, lb	1½@ —
Do Tokays	50 @ 1 25	String Beans, lb	6 @ 7
Do Cornichon	50 @ 1 25	Lima Beans	2 @ 4½
Pears	25 @ 75	Mushrooms	— @ —
do Winter Nelis	1 00 @ 1 75	Egg Plant, bx	50 @ 75
Persimmons	1 00 @ 1 50	Mar'fat Squash, ⅌ ton	5 00 @10 00
Pomegranates, lb	2 @ 4	Cauliflower	50 @ 65
Huckleberries, lb	4 @ 6	Celery	50 @ 75

Extra choice fruit for special purposes sells at an advance on outside quotations

General Produce

BEANS AND PEAS.		Do country m'ls	3 00 @ —
Bayo, ctl	2 30 @ 2 35	Superfine	2 50 @ 3 00
Butter	2 50 @ 3 00	NUTS—Jobbing.	
Pea	2 50 @ 2 60	Walnuts, hard shell, Cal. lb	6 @ 8
Red	2 40 @ 2 50	Do soft shell	8 @ 9½
Pink	2 00 @ 2 10	Do paper-shell	9 @ 1
Small White	2 45 @ 2 55	Almonds, ft sh'l	12 @ 13½
Large White	2 25 @ 2 35	Paper shell	13 @ 15
Lima	2 75 @ 3 00	Hard shell	6 @ —
Fld Peas, blk eye	1 60 @ —	Brazil	8 @ —
Do green	1 75 @ 2 00	Pecans, small	8 @ 10
Do Niles	1 60 @ 1 5	Do large	14 @ 16
Split	4 50 @ 5 50	Peanuts	3½@ 4½
BUTTER.		Filberts	10 @ —
Cal., poor to fair, lb	12½@ —	Hickory	7 @ —
Do g'd to choice	20 @ —	Chestnuts	18 @ 20
Do Giltedged	— @ 30	ONIONS.	
Do Creamery	26 @ —	Silverskin	70 @ 85
Do do Giltedge	— @ 32½	POTATOES.	
Eastern, lad e	12½@ —	River Reds	40 @ 50
Cal. Pickled	20 @ —	Early Rose, ctl	50 @ 60
Cal. Keg	20 @ 24	Peerless	60 @ 75
East'rn Cream'y	25 @ —	Garnet Chilies	65 @ 85
CHEESE.		Burbank Seed's	60 @ 75
Cal. choice cream	9½@ —	Do do Salinas	1 00 @ 1 30
Do fair to good	8 @ —	Sweet	50 @ 1 00
Do Giltedged	— @ 11½	Extra choice sell for more money	
Do Skim	5 @ 6½	POULTRY.	
Young America	— @ 11½	Hens, doz	6 00 @ 7 00
EGGS.		Roosters, old	6 00 @ 6 50
Cal. "as is," doz	22½@ —	Do young	5 50 @ 7 50
Do shaky	17½@ —	Broilers, small	3 00 @ 4 00
Do candled	35 @ —	Do large	4 00 @ 5 25
Do choice	40 @ —	Fryers	5 00 @ 6 00
Do fresh laid	— @ 42½	Ducks	4 00 @ 4 50
Do do s'led whte	— @ 45	Do large	4 50 @ 5 50
Eastern cold-storage	20 @ —	Do extra large	— @ 7 00
Do fresh	25 @ —	Geese, pair	1 50 @ 2 25
Do selected	— @ 32½	Turkeys, gobl'r.	18 @ 21
Outs de prices for selected large eggs and inside prices for mixed sizes—small eggs are hard to sell.		Turkeys, hens	17 @ 19
FEED.		Do dressed	19 @ 23
Bran, ton	13 50@ 14 50	All kinds of poultry, if poor or small, sell at less than quoted; if large and in good condition, they sell for more than quoted.	
Feedmeal	26 00@ 27 00		
Gr'd Barley	19 50@ 20 50		
Middlings	20 00@ 22 50		
Oil Cake Meal	— @ 35 00		
Manhatan Horse Food (Red Ball Brand) in 100-lb. Cabinets	— @ 8 00		
HAY.			
Compressed	8 00 @11 00		
Wheat, per ton	8 50@ —		
Do choice	— @ 13 00		
Wheat and oats	8 00@ 11 50		
Wild Oats	7 00@ 10 00		
Cultivated do	6 00@ 9 00		
Barley	6 50@ 9 00		
Alfalfa	8 00@ 10 00		
Clover	8 00@ 10 00		
Straw, bale	35@ 50		
GRAIN, ETC.			
Barley, feed, ctl	80 @ —		
Do good	85 @ —		
Do choice	87½@ —		
Do brewing	92½@ —		
Do do choice	96½@ —		
Do do Giltedge	1 00 @ —		
Do Chevalier	1 00 @ —		
Do do Gi tedge	1 15 @ —		
Buckwheat	2 25 @ —		
Corn, white	1 15 @ 1 20		
Yellow, large	1 02½@ 1 05		
Do small	1 12½@ 1 15		
Oats, milling	1 36½@ —		
Feed, choice	1 33½@ —		
Do good	1 30 @ —		
Do fair	1 20 @ —		
Do common	1 10 @ —		
Surprise	1 45 @ —		
Black feed	1 05 @ 1 15		
Do seed	1 17½@ 1 30		
Gray	1 30 @ —		
Rye	1 12½@ 1 17½		
*Wheat, milling Gi tedged	1 35 @ —		
Do choice	1 33¾@ —		
Do fair to good	1 31¼@ —		
Shipping, choice	1 32½@ —		
Do good	1 30 @ —		
Do fair	1 27½@ —		
Common	1 25 @ —		
Sonora	1 25 @ 1 30		
HOPS.			
1892, fair	18 @ —		
Good	20 @ —		
Choice	21 @ —		
FLOUR.			
Extra, city mills	3 90 @ —		
Do Sig	2 00 @ 2 50		
Do Teal	1 50 @ —		
Do Widgeon	1 50 @ 2 00		
Do small	1 00 @ 1 50		
Geese	— @ —		
Do gray ⅌ doz	2 00 @ 2 50		
Do White	1 00 @ 1 50		
Do Brant	1 00 @ 1 50		
Snipe	— @ —		
Do English, doz	1 50 @ 2 00		
Do Jack, per doz	75 @ 1 00		
Hare, per doz	1 00 @ 1 25		
Rabbits, large	1 25 @ 1 50		
Do small	1 00 @ 1 25		
PROVISIONS.			
Cal. bacon, heavy, per lb.	12 @ —		
Medium	13 @ —		
Light	14 @ —		
Lard	9½@ 12½		
Cal sm'k'd beef	11 @ —		
Hams, Cal salt'd	13 @ —		
Do Eastern	14 @ —		
SEEDS.			
Alfalfa	9½@ —		
Clover, Red	14 @ —		
White	28 @ —		
Flaxseed	2 25 @ —		
Hemp	4½@ —		
Mustard, yellow	5½@ 6¾		
Do brown	4 @ —		
WOOL.			
Fall, 1892.			
S Joaquin, plain	6½@ 10		
Do mountain	10 @ 12		
Do lamb	8 @ 10		
Northern Choice	14 @ —		
Do Defective	11 @ —		
Do Lamb	10 @ 14		
HONEY—1892 Crop.			
White comb, 2-lb frame	9½@ 12½		
Do do 1-lb frame	11½@ 14½		
White extracted	7½@ —		
Amber do	6¾@ —		
Dark do	6½@ —		
Beeswax, lb	23 @ —		

Dried Fruits.

The quotations given below are for average prices received by commission merchants for consignments by growers. Something very fancy fetches an advance on the highest quotations, while poor sells slightly below the lowest quotations. Prices, unless otherwise specified are for fruit in sacks; add for 50-lb. boxes ½c per lb. and for 25-lb. boxes ¾ to 1c per lb.

APPLES—1892.		PEARS—1892.	
Sun-dried, ¼'s, prime	3¼@ 4	Sun-dried, quarters	— @ 3
Do do choice	4 @ 4½	Do sliced	4 @ 5
Do sliced, prime	4 @ 4½	Evap., slic'd, in b'xes	7 @ 8
Do do choice	4½@ 5	Do ring do	9 @10
Evap. bl., ring, 50-lb. bx	7½@ 9	Unp'led, q'rt'd, bl'ch'd	6 @ 7
Fancy, higher.		PLUMS—1892.	
APRICOTS—1892.		Pitted, sun-dried	10 @10½
Do bleached	13½@—	Do evap. boxes, choice	— @—
Do do fancy	15 @16	Do do do fancy	— @ —
Evap. choice, in boxes	15 @16	Unpitted	4 @ 5
Do fancy, do	15½@17	PRUNES—1892.	
FIGS—1892.		Cal. French, ungraded	7½@ 8
Sun-dried, black	4 @—	Do graded, 60 to 100	8½@ 9
Do white	3½@—	Do do 40 to 60	11 @12
GRAPES—1892.		Fancy sell for more money.	
Sun-dried, stemless	3 @—	RAISINS—1892.	
Do unstemmed	1½@ 2	London Layers, cluster per box	1 90 @2 00
NECTARINES—1892.		Do choicest do	1 50 @1 60
Red, sun-dried	7 @ 8	Do prime pr bx	1 25 @1 40
Do Evap., in boxes	— @—	Loose Muscatels, 2-crown, pr bx	75 @1 00
White, sun-dried	9½@11	Do 3-crown do	1 15 @1 25
Do evaporated	— @—	Do do do faced	1 30 @1 35
PEACHES—1892.		Unstem'ed Muscatels in sks pr lb.	2½@ 3
Sun-dried, unpeeled	7 @ 7½	Stem'ed 2-crown	3 @ 3½
Do do prime, bl'ched	9 @10	Stem'ed 3-crown	3½@ 4½
Do do choice, do	11 @—	Se'dl's M'sc't'l's sks	4 @ 5
Do do fancy	11½@—	Do do in bxs	— @1 00
Sun-dr., pl'd, bl'ched	@—	Do Sultanas, sks.	6 @ 7
Do do prime	14 @—	Do do bxs	— @1 50
Do do choice	—@15	Halves, quarters and eighths 25, 50 and 75 cents higher respectively than whole boxes.	
Do do fancy	—@16		
Evap., peeled, in boxes, choice	17½@—		
Do do fancy	20 @—		

LAST MONTH
THE JUDSON FRUIT COMPANY
Solicited consignments from the Fruit and Produce growers of California. The Consignments Came, and we believe that shippers are satisfied. It is our aim to handle all goods placed in our hands in such a manner as to secure the confidence of consignors.
Packing for long distance shipping a specialty.
Good Storage. Good Local Trade.
ADDRESS THE JUDSON FRUIT COMPANY,
308 & 310 Washington St., San Francisco, Cal.

Keystone Corn Husker and Fodder Cutter.

All readers of the agricultural press must have noticed the interest that is being manifested in the subject of saving, handling and using the corn crop. By "corn crop" we mean the whole crop, and not the grain alone. It is certain that nearly 40 per cent of the corn is in the fodder, and some place the percentage still higher. Can you afford to throw away 40 per cent of your product? Where cattle are turned into the standing stalks, nearly 30 per cent of the value of the entire crop is still lost, besides injuring many animals and injuring the fields.

Of Corn Harvesters we will write some other day, but to-day the process of husking the corn and preparing the fodder, as done by the "Keystone Corn Husker and Fodder Cutter," is before us. This machine is now in its fifth year and has been a success from the start. It has many valuable improvements for the present season: Chain drives for the husking rolls, and for both the ear-corn and cut-fodder elevators have been substituted for the pinions and the shafts formerly used, thus lessening the chances of breakage and wear and requiring less power to drive. A cylinder head, similar to the cylinder of threshing machines, can now be furnished, as well as the knife-head. The cylinder shreds the stalks nicely, for the feed rolls hold the stalks firmly while the cylinder does the work. Fodder thus prepared is both crushed and shredded, and has no sharp edges to injure the mouths of stock.

The cut fodder from the machine has been baled in the ordinary hay press and sold in the markets the same as hay, quite largely, but the shredded fodder can be baled even better.

The corn stalks are fed to the machine butt first, and pass between two feed rollers, which crush the stalks and pass them to the knives or shredder, where they are cut up and dropped to the fodder elevator to be delivered to the mow of the barn, or the shed, or stack. The feed rollers snap off the ears of corn, which fall to the husking rollers beneath, where they are husked cleaner than is usually done by hand, and delivered to the ear corn elevator for the wagon or crib.

The husking pins can be raised or lowered to suit the condition of the corn, and the incline of the husking rollers can be increased or lessened as the conditions may require.

The machine gets every ear of corn from the largest ear to the smallest nubbin. Many cases are reported where parties having had the corn husked by hand had the fodder cut by the machine, and got enough corn by so doing to pay for all the work, ears that the men had missed in hand husking.

There is just lots of valuable information about corn fodder and about this machine which is revolutionizing corn raising to be had from the pamphlet, "The Great Leak on the Farm," which will be sent free to all who mention this paper, by sending a postal card request to the KEYSTONE MFG. CO., Sterling, Ill.

A Tree Wash that Kills the Pests.

A company has recently been organized in San Jose, known as the "Fruit Pest Exterminating Company," with a capital stock of $10,000. Directors are W. E. Ward, G. W. Sill, J. R. Roberts, Henry Singleton, Henry Booksin, Jr., A. Miller and F. C. Struvy.

The purpose of the company is to manufacture and sell Prof. W. H. Brown's Insect Exterminator. This preparation for spraying trees and plants has been tried by careful and practical orchardists in many places, and under various circumstances. Judging from the numerous testimonials (one or two of which are annexed), this pest killer has succeeded where others have failed.

SANTA CLARA, CAL., July 1, 1892.

I hereby certify that Prof. W. H. Brown sprayed a prune-tree that was badly infested with brown apricot scale, hatched and on the leaves. His spray, whatever it might be, began to show its effects as soon as dry. After three days, I have this day examined many leaves and do not find a live scale. One twig on another tree, all of which was affected with live scale on the leaf, was sprayed and the same results found on the leaves of that twig. The woolly and rose aphis immediately yielded to his treatment. Very respectfully, etc.,

PHILO HERSEY,
President West Side Fruit Growers Association, Santa Clara Valley.

SAN JOSE, CAL., August 4, 1892.

TO WHOM IT MAY CONCERN:

This is to certify that yesterday I had various tender plants and hardy evergreens, such as assorted palms, oleanders and coleus, treated with Prof. W. H. Brown's Insect Exterminator, and to-day all injurious insect life is destroyed, and without injury to any of the plants whatever. R. D. FOX,
Proprietor Santa Clara Valley Nurseries.

The company's office is at 33 Fountain St., San Jose. For particulars address Henry Booksin, Jr., manager.

Letter From Alfred Grunfeld.

TRANSLATED FROM THE GERMAN.

WM. KNABE & CO.:

During my six months' concert tour through the United States of America, I have used exclusively the Knabe Pianos, and am pleased to be able to state, with fullest sincerity, that I consider them *the best instruments of our times.*

In particular, is the action *absolutely incomparable*, enabling the rendering of effects which I considered heretofore impossible.

I congratulate Wm. Knabe & Co. heartily to their superb instruments, and feel convinced that most of my colleagues will join me in my judgment.

ALFRED GRUNFELD,
Imperial and Royal Austrian Court Pianist, and Royal Prussian Court Pianist.

New York, April 1, 1892.

AN OLD STYLE PULVERIZER.

Especially adapted to pulverizing "bottoms"—one man and a small boy can operate it.

THE LATEST STYLE

PULVERIZER!

— THE —

PACIFIC SPADER!

Operated by one small Boy. No Man required.

SOMETHING NEW! FINEST IMPLEMENT IN THE MARKET. SIMPLE STRONG DURABLE PERFECTION ATTAINED

The **Pacific Spader** and **Vineyard Cultivator.** Does more work in one stroke than a Disc Harrow in ten. Sizes, 5½ to 12 feet.

TRUMAN, HOOKER & CO.
SAN FRANCISCO and FRESNO.

— SIZES: —

No 5D—	5½ foot	Spader	16-inch	Blades
No. 6D—	7 "	"	16 "	"
No. 10D—	5½ "	"	20 "	"
No. 14D—	7 "	"	20 "	"
No. 16D—	8 "	"	20 "	"
No. 20D—	10 "	"	20 "	"
No. 24D—	12 "	"	20 "	"

Linden, Cal., Nov. 26, 1892.

Messrs. Truman, Hooker & Co.,
San Francisco, Cal.

Gentlemen:-I was induced by your agent, Mr. I. O. Fowler, to purchase one of your PACIFIC SPADERS, which I have tested on some very hard land and must say it does its work to perfection. I will say to all who contemplate purchasing a Cultivator to take the Pacific Spader every time. I remain

Yours very truly,

C. V. Webb.

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If you do not object to buying at a factory, we can SAVE YOU

40 Per Cent

On Rattan Chairs. Over Two Hundred Styles to show you.

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OF SANTA CLARA COUNTY.

CAPITAL STOCK.....$10,000 PAID UP.

TELEPHONE 181.

W. E. WARD.....President
H. BOOKSIN, Jr.....Manager
J. R. ROBERTS.....Secretary

This Company is Sole Agent in this county for **PROF. W. H. BROWN'S INSECT EXTERMINATOR**, and is prepared to contract for the pruning and spraying of orchards. WARRANTED TO KILL all kinds of Scale, Woolly, Green, Plum and Hop Aphis, Cherry and Pear Slug, Cankerworm and Caterpillars, and in fact all insects injurious to the Trees, Shrubs, Plants or Vines, WITHOUT INJURY TO THE FOLIAGE ON TREES. **Indorsed by the State Board of Horticulture of Oregon.**

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Seeds, Plants, Etc.

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The Largest and Best Collection of "Nut-Bearing Trees to be found in the United States, and Excelled Nowhere in Europe.

24 Varieties of French Walnuts, hardy, productive, perfect bloomers, regular soft shell varieties, including the Mayette, Franquette, Cluster, Vourey, Parisienne, Prœparturiens (4 varieties), Alpine or Wonder of the Alps, Chaberte, Barthere, Mammoth or Jauge, Meylan, Laciniated or Ash-leaved (highly ornamental), Weeping (with limbs bending gracefully down like those of the Weeping Willow), and 11 other varieties, 4 of which are of California origin.

Our Seedling Trees are guaranteed to be "Second Generation" Trees, being grown from nuts borne on the original or on trees grafted from the original.

Our Grafted Trees are all **grafted from the original** and therefore **absolutely true.**

10 Varieties of French Chestnuts or "Marrons", solely propagated by grafting; the finest, largest and sweetest.

9 Varieties of Filberts (Avelines, Cobnuts and Round Filberts). See chapter on "How to Train Filberts to Make them Bear Abundantly," in catalogue.

11 Varieties of Prunes, including five different "types" of the Prune d' Ente or Robe de Sargent or French Prune, all synonyms; what is wrongly called in California Robe de Sargent we call "Loire D'Ente", as it is found only in the nurseries of the Loire valley in France, and not in those of the true Robe De Sergent's home in the valley of the Lot.

241 Varieties of Grapes, divided into Extra Early, Early, Medium and Late Varieties. The largest and choicest collection to be found in California.

APRIL CHERRIES, the very earliest kinds ever introduced in this country.

Pears, Apples, Plums, Apricots, etc.

Small Fruits of all sorts

Portugal Orange, fine and smooth thin skin and sweet.

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General Descriptive Catalogue, with essay on "GRAFTING THE WALNUT, And How to Redeem Large, Unproductive, Delicate, Defective or Hard-shell Walnut Trees by Grafting." Illustrated with 8 cuts on Walnut Grafting.

PRICE TEN CENTS.

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The Earliest Yellow Freestone Known.

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TWO WEEKS EARLIER THAN FOSTER OR EARLY CRAWFORD.

The Best Peach Known for Early Shipment East.

Reasonable prices to dealers and canvassers. For particulars apply to

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PEACHES, BARTLETT PEARS, ALMONDS, FRENCH AND OTHER PRUNES, APRICOTS, ORANGES, LEMONS, OLIVES, SHADE & ORNAMENTAL TREES, Etc.

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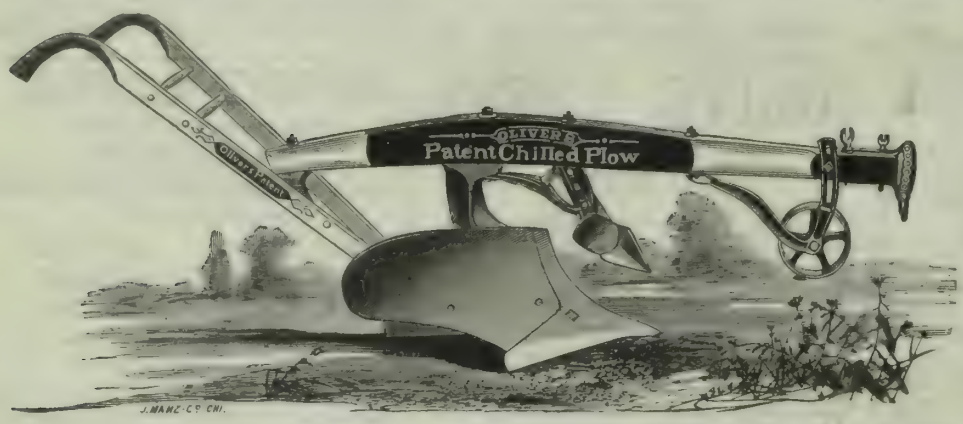

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MESQUITE GRASS SEED, ONION SETS, TOP ONIONS.

SEND FOR OUR CATALOGUE OF GARDEN, FLOWER SEEDS.

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For the season of 1892-93 we are prepared to furnish a complete line of **Fruit** and **Ornamental Trees, Vines, Figs, Small Fruits,** etc,, on short notice and at reasonable living prices. Our stock is free from insect pests, and for strength and health of root growth is not excelled, as we give this special attention.

Nurseries are at Acampo on Stockton R. R., and we have an office and tree yard in Sacramento from the 1st of December to the 15th of April. **VAN GELDER & WYLIE, Prop's,**

(SEND FOR CATALOGUE.)

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California Paper-Shell, Nonpareil, Ne Plus Ultra and I. X. L.

A pamphlet on Almonds mailed free of charge on application. A large supply of the GOLDEN PEACH and FRENCH PRUNE. All kinds of leading fruit trees for sale. No charges made for baling trees. Address

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FIRST AND BEST OF EARLY YELLOW PEACHES.

RIPENS IMMEDIATELY AFTER THE ALEXANDER (White Cling), which is the earliest peach in market.
Fruit is rou d, of medium size, **VERY HIGHLY COLORED,** flesh firm and sweet.
THIS PEACH HAS BEEN SUCCESSFULLY SHIPPED EAST FOR FIVE YEARS and is no new, untried variety.
Tree healthy, strong grower, and heavy bearer, never having missed a crop.
A limited number of yearling trees for sale this season. Apply early before stock is exhausted.

GIANT OAK FRUIT CO.,

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FRUIT TREES!

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EARLY CRAWFORD, FOSTER MUIR AND ORANGE CLING **PEACHES!**

FRENCH PRUNES on Myrobolan, Peach and Almond Roots.

BARTLETT PEARS, Apricots, Cherries, Olives, Walnuts, Etc.

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PACIFIC RURAL PRESS

Vol. XLIV. No. 24. SAN FRANCISCO, SATURDAY, DECEMBER 10, 1892. THE DEWEY PUBLISHING CO. Office, 220 Market St.

What a California Fruit Farm Will Do.

Pages of description and columns of inventory prebably would not so forcibly impress upon the mind of the distant reader the excellence and variety of the products of a single California fruit-farm as well as a glance at the engraving herewith presented. Such testimony from a photographic camera cannot be gainsaid, and we present the evidence with all the more confidence because the display is not exceptional or isolated, but is characteristic of the State, and can be reproduced wherever industry and intelligence join forces with soil and climate. But though the material is thus within the reach of all, the presentation of it in an object lesson such as the engraving carries is striking and significant, and in the production of the engraving we have a twofold object: first to show the products of the farm, second to give a lesson in the display of such products for public examination and enjoyment. The first reflects credit upon both farm and owner; the second bespeaks the taste and enterprise of the owner.

PRODUCTS OF THE VINE HILL FRUIT FARM OF W. W. WATERMAN, SANTA CRUZ.

The exhibit shown in the engraving was made by W. W. Waterman at the recent fair in Santa Cruz county, and the material was produced upon his fruit-farm in the region known as Vine Hill, adjacent to the city of Santa Cruz. The farm is rather an old one, and has been well improved and planted in great variety, as the exhibit shows. There were shown 18 varieties of table grapes, seven of wine grapes, 12 of orchard fruits, eight of garden vegetables, 15 of sun-dried fruits, 16 of canned fruits, 25 of jellies, 11 of preserved fruits, eight of wine, etc.

These products were not produced in variety for exhibition. If that were the case, the varieties could have easily reached hundreds. The display is merely of products which enter into the business of the farm and are for the most part income-yielding supplies. As such they are, of course, of great significance, and illustrate the way in which the owner of a comparatively small piece of ground may make a livelihood by giving attention to diversified production, which will well employ his time and afford opportunity for the exercise of whatever of art and ingenuity he can command in his productive enterprise. Of course we are not declaring that under all circumstances such diversity of products is best. It is often, in fact, best not to attempt such a variety, and yet in many situations pleasant and prosperous homes are established upon such a basis.

THE CABBAGE CROP.—California can easily grow cabbage enough for the whole Eastern slope, and if the product should only come coincident with an Eastern scarcity there would be money enough in it to make all Californians rich. The trouble has been hitherto that only occasionally would low freights and high Eastern values connect in such a way that cabbage could be profitably shipped, and then, of course, California would only have a moderate surplus to spare. Another of the instances of millions in cabbage, if we only had millions of cabbage, is just present. An Eastern paper says:

Cabbage is a scarce and high-priced article in Chicago this season; scarcer and higher in price than for twenty-five years. The usually bountiful crop raised in the vicinity of that city is almost a complete failure. The only available surplus is in Minnesota. It, too, is limited, and the price has already gone up to $16 a ton for Chicago. The cabbage-growers of Michigan, Wisconsin, Iowa, Indiana, Ohio and other parts of Illinois have suffered the same as the farmers and gardeners adjacent to Chicago. It is predicted by Chicago dealers that the price will go as high as $40 a ton before the holidays are over. This figure will make a medium-sized head cost 25 cents at the retail grocers. The price of the same size head was five cents last year.

Suppose, then, we put in a vast acreage of cabbage for Eastern sale. Eastern vegetable-growers will naturally do the same thing, and California cabbage will not be worth the freight. President Harrison is right; the farmer would be better off if he could grow crops to order.

THE CITRUS FAIR.—The northern citrus fair will be held in the hall of the Mechanics' Institute, San Francisco, beginning January 10th and continuing until February 11, 1893. The various citrus fruit counties in northern California are manifesting an unusual degree of interest in the event, and the prospect is that the exhibit will be large and complete. Suitable money prizes have been offered and the competition between the exhibitors bids fair to be spirited.

Pickling Ripe Olives.

It seems that there are still people who do not know the superiority of the pickled ripe olive over the green, but fortunately when the lesson is learned it is not forgotten. An English traveler is reported to have recently visited Oroville and to have been introduced to the black pickled olive and to have thus expressed himself: "He had traveled extensively through Italy, Spain, Greece, Sardinia and France, the great olive region of Europe, and had eaten olives in all the cities of those countries, but had never eaten any that were sweeter or more palatable than those put up here. He expressed his surprise that California had led off in this idea of pickling the ripe olive, for it is the European plan to pickle the olives while they are yet green.

It seems to us there must be something wrong either with the reporter or with the English traveler, for it is not true that the natives of the European countries named pickle the ripe olive for their own use and the green for export? If this is the case, the traveler must have been served with fruit which he, as a foreigner, was supposed to enjoy rather than the product for home use. California, as we understand it, does not claim any originality in pickling ripe olives, but does claim to be getting at a proper understanding of the olive as it is understood in its ancestral homes in southern Europe.

MR. FULTON G. BERRY, near Centerville, Fresno county, has a tree bearing 4000 oranges. An enthusiastic calculator estimates that the crop on an acre of such trees would be worth $4500. No doubt it would. But Mr. Berry has not an acre, nor has any other producer. If he had, the inducements for all inhabitants of the State to abandon their present pursuits and engage in orange-raising would be so enormous that California would become one vast orange orchard, and the market might suffer somewhat from overproduction. Mr. Berry's is a remarkable tree, which has no doubt had special care and unusual advantages of soil, irrigation and location, and, in the nature of things, it is not likely that even the prolific county of Fresno could produce many such. We congratulate Mr. Berry on its possession, and hope its shadow may never grow less.

FRUITGROWERS in southern California are discussing the question of what is the best lemon. The *Orange Belt* quotes several prominent growers in favor of the Lisbon.

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By The Dewey Publishing Co.

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Annual Subscription Rate Three Dollars a year. While this notice appears, all subscribers paying $3 in advance will receive 15 months' (one year and 13 weeks) credit. For $2 in advance, 10 months. For $1 in advance, five months. Trial subscriptions for three months, paid in advance, each 60 cents.

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Registered at S. F. Post Office as second-class mail matter.

ALFRED HOLMAN.....General Manager

San Francisco, December 10, 1892.

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[NEW THIS ISSUE.]

Seeds—E. J. Bowen.
Situation Wanted—"W. V.", Box A.
Nursery Stock—D Turner, Phoenix, Arizona.
Harrows—Deere Implement Company.
Agricultural Machinery—Frank Brothers.
Pruning Shears—Baker & Hamilton
Wood Preserving Compound—Carbolineum Wood Preserving Co.
Agricultural Implements—Allison & Neff.
Nursery Stock—C. W. Reed, Sacramento.
Planet Drills—S. L. Allen & Co., Philadelphia, Pa.
Jack for Sale—Dr. G. W. Leek.
Cream Separators—A. J. Van Drake.
Scotch Collie Pup for sale—"R. B" this office.
Nursery Stock—A. P. Henning, Cottonwood, Cal.
☞ *See Advertising Columns.*

The Week.

The storm has passed, and now all reports which come to us from end to end of the State are of quickly springing grass, the green mantle covering the whole landscape beneath the warm welcome of an unclouded sun. Most localities report ten times or more rain this year than last to this date; the soil almost everywhere being soaked beneath the sole of the plow so that all sorts of seasonable fieldwork proceeds unrestrictedly.

There will be a vast area plowed and seeded before Christmas, and another respectable area prepared for tree-planting, for the most earnest activity is manifested in efforts to extend the orchards of the State. The last summer's experience with fruit prices warrants this. There will also be a considerable planting of citrus fruits in places new and old, for there has been nothing for several years to discourage the pioneers in the new thermal belts. May they always be thus favored.

At the South there is a promise of a very satisfactory orange crop, and this means a winter of activity and a large money inflow. Surely business must respond to the favoring conditions which the interior enjoys.

A Drawback to Agriculture.

In his current message to Congress, President Harrison makes the following succinct reference to a matter that all agriculturists experience and appreciate:

It is one of the unfavorable incidents of agriculture that the farmer cannot produce upon orders. He must sow and reap in ignorance of the aggregate production of the year, and is peculiarly subject to the depression which follows overproduction. But while the fact I have stated is true as to the crops I have mentioned, the general average of prices has been such as to give to agriculture a fair participation in the general prosperity. The value of our total farm products has increased from $1,363,646,866 in 1860 to $4,500,000,000 in 1891, as estimated by statisticians, an increase of 230 per cent. The number of hogs in the country on January 1, 1891, was 50,525,106, and their value was $210,193,925. On January 1, 1892, the number was 52,398,019, and their value was $241,931,415. On January 1, 1891, the number of cattle was 36,875,648, and the value $544,127,908. On January 1, 1892, the number was 37,651,239, and their value $570,749,155.

The President also says:

It may be, I think, said without challenge that in no corresponding period has so much been done as during the last four years for the benefit of American agriculture.

Second Crop Raisin Grapes.

The most interesting topic at the present time among growers of raisin grapes is the disposition of the second crop—the grapes which are borne upon the later wood-growth of the vine and are naturally later in ripening than the fruit which first appears nearer to the old wood. When raisin-making was new in this State, the second crop was not undesirable. Though the clusters are small, the berries are of unusual size, and the pioneer raisin-makers used to display their immense second-crop raisins with pride, and used also to get large prices for them. As the industry has grown and the product has increased, necessitating far greater system and economy in handling it, the second crop has become either an embarrassment or a positive detriment, as different growers are disposed to look upon it. It is an embarrassment when its lateness brings it into a rainstorm and its raisin product is poor, and it is a direct detriment because the growth of second-crop clusters takes sap which should make better first-crop clusters.

The question then is, what can be profitably done with the second crop, or how can the second crop be prevented? Answers to the first are being diligently sought, and special meetings of grapegrowers are being held in the San Joaquin valley to discuss by-products. At the same time much attention is being given to methods of pruning by which the whole strength of the vine can be thrown into the yield of one crop. This latter phase of the subject was considered by the State Horticultural Society at its last meeting, and Mr. E. W. Maslin proposed the Guyot system of pruning as fitted to give the vine an opportunity to make its top growth more commensurate with its root system, to prevent the growth of laterals from buds which should supply strong canes for the next season's fruit-bearing, and to prevent the second crop of grapes because the vine has better opportunity for strong wood growth.

As this subject is of such wide interest, and as some vineyards in the raisin regions are already adopting methods of longer pruning, we will state briefly in what consists the Guyot system, which has been found of great value upon some of the richer low-land districts of France. The vines are brought to the third year by the usual system of pruning, and the third year a single cane is trained to form a head at about ten inches from the ground and all the growth trained to a five-foot stake. At the next year one cane is pruned long, say with ten buds; another is pruned to two buds, all other canes being removed. After the winter cultivation, the long cane is bent down, horizontally, and attached to the lower wire of a two-wire trellis, which is formed by stretching two wires from stake to stake across the field. During the following summer the laterals are allowed to grow from the fruiting-cane and are tied to the upper wire and topped off. Bunches of fruit will then be formed on the fruiting-branch, and as there is considerable length to that cane, it will allow for sufficient fruiting of first crop. At the same time, two shoots which come from the short spur are allowed to grow upright and are tied to the high stake. Their growth is not interfered with at all; they have all the extension they desire. The result is that the lower buds are fully formed but do not project laterals.

At the next winter-pruning, the cane which has fruited is removed entirely. One of the two canes on the high stake is cut back to two buds; the other is turned down and fastened to the wire for the next summer's fruiting. As this process is repeated from year to year, it will be seen that each summer the vine is permitted to grow two long canes and to have wood for a good fruiting of first crop. Each winter the old fruiting-cane is cut away. One new long cane is cut back; the other long cane is bent down for fruiting, etc. The method is exceedingly simple, and ordinary workmen can easily be taught it. The objections which will be urged are the cost and inconvenience of trellising; the impossibility of plowing and cultivating both ways unless some arrangement for removing in the fall and subsequent replacing of the wires in the spring can be found available. It might possibly be arranged to have a folding-arm to the high stake or some other simple contrivance.

Of course, it is possible to apply other methods of longer pruning and of allowing the vine greater opportunity for exercising its vegetative energy. However it may be done, this seems to be a way to prevent the second crop, and possibly to free the vine from some diseases which now affect it and may be due to the unceasing repression of its growth.

It will be a good idea to have a more general trial this year of longer pruning of our vines. All reports of which we know have indicated a greater grape yield on longer-pruned vines. Is the increase commensurate with the greater trouble and outlay? Will the longer-pruned vines prove more vigorous, and will they devote their full force to one crop instead of undertaking the second setting of fruit? These questions are old, but if each vinegrower will experiment this year on a few vines he will get results which may be very significant, and in which he will have confidence.

Great Sires of 1892.

The trotting season for 1892 is practically at an end, and it is possible to summarize results, so that it may be seen what strains have been most successful in making fast records and in winning races. It appears that thirty-eight stallions have had five or more of their get become standard by performance this season, and are now classed in the 2:30 list, having made a mile in 2:30 or better, or, if pacers, 2:25 or better. So steady has been the advancement in the matter of intelligent breeding, that this achievement is looked upon as a matter of course. The greatest sire of the year appears to be Red Wilkes, son of George Wilkes, 2:22. Although the technical record of Red Wilkes is 2:40, it is known that he made two separate miles in better time than 2:30—one of them in 2:27—when in his four-year-old form. Other sires in the subjoined list are in the same position as Red Wilkes, having actually exceeded 2:30, among them Mambrino King, Young Jim, Dictator, Bourbon Wilkes and Electioneer. But, leaving out of the question all speculation as to what these sires were able to do, the fact remains that the large proportion which have had five or more of their produce in the 2:30 or 2:25 lists, are developed trotters and no less than ten of them have records better than 2:20.

Electioneer is a close second to Red Wilkes (who has 22) with 15 to his credit, and then come Nutwood and Onward.

The list, compiled by the *Breeders' Gazette*, is as follows, the last column being the number in the 2:30 list from each stallion named:

Red Wilkes	2:40	22	Young Wilkes	2:28¼	7
Electioneer	——	17	Ben Franklin	2 29	6
Guy Wilkes	2:15¼	15	Bourbon Wilkes	——	6
Nutwood	2:18¾	14	Cyclone	2:23½	6
Onward	2:25¼	13	Egbert	——	6
Alcantara	2:23	11	Hambrino	2:21¼	6
Dexter Prince	——	11	Sable Wilkes	2:18	6
Happy Medium	2:32½	10	Santa Claus	2:17½	6
Jay Bird	2:31¾	10	Victor Bismark	——	6
Ambassador	2:21¼	9	Alcyone	2:27	5
Gambetta Wilkes	2:22½	9	Almont (Hamlin's)	2:26	5
Mambrino King	——	9	Altamont	2:26¾	5
Pilot Medium	——	9	Brown Hal (p.)	2:12½	5
Young Jim	——	9	Egmont	——	5
C. F. Clay	2:18	8	Madrid	——	5
Phallas	2:13¼	8	Phallamont	——	5
Robert McGregor	2:17½	8	St. Bel	2:24½	5
Baron Wilkes	2:18	7	Simmons	2:28	5
Dictator	——	7	Sprague (Round's)	2:24½	5
Wilton	2:19¼	7			

The New Road Law.

Important changes in the road laws of the State occur on January 1, 1893, in accordance with the provisions of the new law passed by the last legislature. In brief, the provisions of the new law are as follows:

It provides that each supervisor district shall constitute a road district; that the supervisor shall be ex-officio road commissioner; that sealed proposals shall be received for keeping in order and repair roads, culverts, etc.; that for the purpose of watering roads in any part of the county, the supervisors may erect and maintain water works, and for such purposes may purchase or lease real estate or personal property, the cost of such work and the watering of the roads to be charged to the general county fund, or to the district fund of the district or districts benefited; that the road commissioner shall inspect the work done on the roads of his district and make written reports to the board in January, April, July and October of each year; that the road commissioner shall receive for his service as such 20 cents per mile, one way, for all distance he travels in performance of his duties, with the understanding that in any one year he shall not receive to exceed $300—the present limit upon roadmasters; that in their discretion the supervisors may appoint a road inspector for the whole county, who shall receive not to exceed the total compensation of the road commissioners; that all contracts for building and repairing roads shall be let to the lowest bidder.

It will be observed that a leading provision of the law relates to the watering of roads. The supervisors are vested with large powers in this particular, water being considered an indispensable agent in the maintenance of good roads.

The new law is not received with favor in all parts of the State, but there is a general disposition to give it a fair trial.

The Fresno County World's Fair Commissioners have decided to place 5000 oranges and 1000 lemons in the county exhibit at the World's Fair. Donations of the fruit are not asked, but the commissioners have decided to pay for it at the rate of $30 per thousand, or $180 in all. Contracts have already been made.

It is proposed to establish cordage or rope works at the State Prison at Folsom, when the water power from the American river will be utilized. The cordage of the United States is practically under one immense trust, the National Cordage Association.

From an Independent Standpoint.

Jay Gould, the notorious Wall-street operator, died on Saturday of last week of pulmonary consumption. His death was the culmination of an illness of three years' standing, and had been constantly imminent for many months. Gould was the son of a New York farmer, and his early life was not unlike that of most country boys. He milked cows, drove them to pasture and "chored" around generally, till, at the age of ten, he begged and obtained permission to go to school. There was no school in his neighborhood, so he entered into an engagement with the blacksmith of a village some fifteen miles away to work out of school hours for board and lodging. At the age of fourteen he obtained employment in a country store, and while thus engaged studied surveying. Between the years of eighteen and twenty he worked as a surveyor's assistant, paying for his board and lodging as he traveled about the country by making noon-marks for farmers' wives. The young man was industrious and temperate to frugality, and had soon amassed a snug little fortune of $5000. With this capital he entered upon a career of speculation, which ended only with his death. In thirty-five years he turned his five thousand dollars into a hundred millions. Gould has for many years been a widower. He leaves five children—four sons and a daughter. All are well grown up, two of the sons being married. As yet the will has not been made public.

The methods by which Mr. Gould's personal fortune grew from nothing to one hundred millions of dollars made his name infamous. In every art which has ever been applied successfully to the manipulation of stock and money markets Gould was an adept, and he stood above all rival American capitalists in the ability to wield vast capital to the largest advantage. He was absolutely without conscience or mercy, and in his code anything that was within the letter of the law was legitimate. Considerations of right as distinct from might, never affected his plans. He valued his honor as little as he did any other moral consideration, and could stab a friend as easily as an enemy. In business, Gould was in turn everything that was infamous—a liar, a thief, a false ally and a pirate. For twenty years he has been the evil genius of the American business world. One-half of the schemes by which corporations and stock jobbers habitually fleece the country are of his invention, and he played them for all they were worth, and with preeminent success. Some years ago, when brought before the bar of a congressional committee to give testimony concerning some of his methods, he boldly justified them, charging that the fault was not with him, but with the laws. Apparently he was not even able to conceive a moral obligation as distinct from the black and white of statute. But while professing respect for the law, he treated it with calculated contempt. A bribed judiciary in New York was an element of his vast engine of power, and his whole course was directed with as little actual regard for law as for morals.

There is wide distinction between a man like Gould, even though he appear occasionally as an organizer and administrator of large public enterprises, and a man like Senator Stanford of our own State. Men of the latter sort, though very often subject to grave criticism, do much good to a country in certain stages of its development. They use their vast gifts of foresight, organization and administration in ways which fertilize and water the land. If not all that they do may be commended, much at least is profitable to the country in which they operate. But Gould and those who imitate him are scourges who carry pestilence and destruction in their wake. The processes through which they find their own profit are exhaustive to every field in which they operate. Let anybody who is curious about these processes read "A Chapter on Erie," by Charles Francis Adams, printed in the *North American Review* more than twenty years ago; then let them read the tale of his robbing and wrecking of Toledo & Wabash, as set forth in the hearing before United States District Judge Gresham, who threw Gould and his rascally confederates out of court. His talons have been fixed into every great enterprise in the country, and he has generally picked the bird clean of meat down to the bone, so long as God allowed him health and strength to continue his predatory career.

The worst of Gould, as of every other grossly selfish and dishonest man, was his example. To destroy the material fortunes of men, serious as it may be, is a small wrong as compared with the destruction of their characters. The effect of Gould's methods was to lead his associates and rivals into the practice of them; while his extraordinary success gave them a sort of respectability. Unfortunately great success, especially in money-making, is usually made to justify the methods by which it had been achieved; and it ought not, perhaps, to be surprising that some really good men—among them even grave ministers of God—seek to gloss over the infamies of Jay Gould's career. They point to his abstemious life, to his domestic habits, to his fondness for his family, as if these private virtues, many of which he shared with the tiger and the savage, could wipe out the iniquity of his business life. They forget that these very virtues, along with his great success, deepen the evil of his example. It was Jay Gould above all other men who debauched the business system of New York city. He made stock-jobbery, railroad-wrecking, judicial bribery, and the whole train of evils which accompany these operations, the common practice in the great financial center of the country. He was the father of the new school of business-men whose pernicious activity has established the "trust" or the "pool" as the highest commercial achievement. Gould first taught the method, and then by the example of his great success made infamy almost respectable. The evil of Gould's life is a sort that lives after him. It is seen in a general "let down" in the moral tone of the business world. Business honor is not what it used to be. The jobber in stocks, the trickster of the "street," the usurer and the business sharper have a new standing in the commercial world which may be traced to the degrading example and the infamous success of Jay Gould.

That Gould was able throughout his whole career to operate for selfish advantage in violation of the interests and rights of others, to outrage public and private morals and *still keep within the law*, is the strongest possible demonstration of the insufficiency of the law. There is radical vice in a system which cannot protect the people from the practices by which Gould got together his millions. *What is illegitimate ought to be unlawful.* We have no prejudice against wealth, provided it be fairly acquired, but we doubt seriously if it be possible for any man in the brief period of one working life to mass a hundred millions or any large part of that sum by fair and honest means. Such vast sums cannot be acquired by ordinary or even extraordinary earning power, or in any way other than by the management for private gain of conditions related to universal necessity. How far such management may be legitimate—that is, consistent with the general rights and not in disregard of public policy—is a question worth careful study. There are advanced thinkers who hold that a government organized like our own cannot permit such huge accumulations of capital, with the centralization of power which goes with capital, without putting in peril its very existence. The point is at least worth considering. But certain it is that no nation dependent for life and character upon the public virtue and patriotism, can afford to allow the methods of Gould to become established as the business code of its people.

Congress met on Monday, and on Tuesday received the last annual message of President Harrison. It is long, but not longer than is necessary for a careful and business-like statement of the general facts connected with the administration of the Government. It deals more with details of government than with great political questions. Concerning the currency, President Harrison says that "the public confidence in the purposes and ability of the Government to maintain the parity of all our money issue, whether coin or paper, must remain unshaken." He calls attention to the unusual demand for gold in Europe, caused by the efforts of the European Governments to increase their gold reserves and remarks, not very definitely, that "these efforts must be met by appropriate action upon our part." "Appropriate action" may mean one thing or another, just as different persons may construe it. The importance of the Nicaragua canal is emphasized, but the President keeps entirely away from the question whether or not the Government should aid in its construction. Concerning the protective system, the President is positive. He regards it as a "mighty instrument for the development of our national wealth and a most powerful agency in protecting the homes of our workingmen from the invasion of want." The result of the election, he says, "must be accepted as having introduced a new policy. We must assume that the present tariff, constructed upon the lines of protection, is to be repealed, and that there is to be substituted for it a tariff law constructed solely for revenue; that no duty is to be higher because the increase will keep open an American mill or keep up the wages of an American workman, but that in every case such a rate of duty is to be imposed as will bring the Treasury of the United States the largest returns of revenue. The contention has not been between schedules, but between principles, and it would be offensive to suggest that the prevailing party will not carry into legislation the principles advocated by it and the pledges given to the people." Evidently, in writing this paragraph, Mr. Harrison forgot for the moment that it was not his duty to outline the policy of Mr. Cleveland's administration. It was certainly unnecessary, and as surely in exceeding bad taste, for Mr. Harrison to run in a campaign document as a feature of his retiring message. The rest of the message is plain and business-like, but not notable in any respect. The President seems to have purposely avoided any mention of the issues raised before the country by the new People's Party. In fact, the only really vital issue upon which he ventures a positive expression is the tariff. Some expression concerning the newer political issues was expected from Mr. Harrison. The immigration question, the questions developed by the Homestead affair, the new issues raised by the Farmers' Alliance—these were worth the President's attention, and there will, we imagine, be general disappointment that he has chosen to pass them by.

The session will be a short one—ending the third of March—and it is not likely that anything in the way of new business will be attempted. There is quite enough on the calendar to occupy all the time. Perhaps, of all the measures pending, the anti-option bill is of the widest general interest and importance. Its purpose is to stop the business of gambling in "futures" representing agricultural commodities which do not exist; a practice iniquitous in itself and seriously damaging in its effect upon the prices of farm products. The bill passed the House of Representatives last session and now awaits the action of the Senate. This measure is the first serious assault of an outraged public upon the demoralizing practices of the stock market, and if it shall be successful in suppressing gambling in "futures," it will be followed by assaults upon associate evils. Naturally the whole political power of Wall street will be arrayed against it, for it is seen that one success will lead to another, and that the whole system by which "the street" fattens at the cost of the producers of the country is in peril of being brought under review. Both the material interests and the higher moral interests of the country are involved in the fight on this anti-option measure.

The Silver Conference at Brussels has gotten far enough along to demonstrate its inability to do anything for the relief of silver. The Rothschild plan, proposing by a series of heavy purchases to maintain silver at its present status during the next five years, has been withdrawn, and the delegates are now precisely where they were at the beginning. The European nations will follow the lead of England, and England, the creditor nation of the world, will insist upon the gold standard. The Conference will probably drag along for some weeks, but it is not now believed that it is possible for it to afford any relief in the currency situation. If silver is to be maintained as a money metal, the experiment will have to be made by the United States alone, and it is a plunge before which our statesmen do well to pause and reflect. That something must be done is evident. Gold grows steadily, if slowly, dearer, and as its price advances the price of every other commodity decreases. The question "What to do" is the great puzzle of the time.

Breeders' Association Meets.

The Pacific Coast Breeders' Association held its annual meeting in San Francisco, Monday, and elected the following directors for 1893: Joseph Cairn Simpson, Oakland; John F. Boyd, Danville; F. H. Burke, Menlo Park; G. Tompkins, San Leandro; Wilfred Page, Penn's Grove; A. B. Spreckels, San Francisco; George W. Woodard, Yolo; E. P. Heald, San Francisco; D. J. Murphy, San Jose; A. T. Hatch, San Francisco; R. S. Brown, Petaluma; F. C. Talbot, San Francisco; J. H. White, Alameda; L. H. McIntosh, Chico. F. W. Loeber was the only director of the old board who held over.

There was some discussion relative to the introduction of the dash system in the races instead of heats. No definite action was taken.

The association is in a prosperous condition, having about $500 in the treasury. After the annual meeting a directors' meeting was held, when the following officers were elected: President, Joseph Cairn Simpson; vice-presidents, F. H. Burke and F. W. Loeber; treasurer, N. T. Smith; secretary, F. W. Kelley.

THE SECOND CROP OF GRAPES.—At its meeting Monday, December 12th, the Lucerne Horticultural Society will discuss the subject of the best way of disposing of the second crop of grapes—whether it should be made up into jelly or syrup, or distilled into brandy, etc., and what is best for the farmers to plant in 1893.

PASADENA is making ample preparation for its coming rose tournament, and the *Star* promises that it will be more brilliant than ever, "and still have flowers enough and enterprise enough left to show strangers what may be done in the spring in the line of a floral exhibition."

Try an Institute this Winter.

CAMPBELL, SANTA CLARA CO., Nov. 26, 1892.

TO THE EDITOR:—The winter season is again upon us, and it seems to me that it is an opportune time for the holding of Farmers' Institutes in this State. No one is so busy but what he can spare a day or two from his work to attend such institutes as may be held in his locality. I presume there are none who will doubt the beneficial results arising from such gatherings, especially if the leaders make them what they can and ought to be. The eastern States are preparing for this work more extensively than ever before, especially in Missouri, where 48 county institutes are to be held this winter. Wisconsin, the pioneer State in this work, will hold the usual number, while Iowa, Illinois, Minnesota, Michigan, Indiana, Ohio and other States will not neglect to hold their full quota of meetings.

California ought to be up and doing in this matter, for it is a well-known fact that all of us, no matter how well posted we may be in our calling, can learn something from our neighbors, and if we can better our condition in any particular we should be willing to do so. None of us know it all. Then, too, we may know something that will be of benefit to our neighbor, and we should be willing to impart to him, recognizing that what helps our neighbor will also help us in a measure.

While in other States legislative aid has been voted to help along Farmers' Institutes, we need not be deterred from holding them because we have no such aid. The expense of such gatherings need not be very large; and surely any community can raise the amount necessary to insure a good, profitable meeting.

One of the important features of a profitable institute is a good chairman who can help draw out discussions. Have brief, pointed essays, on such subjects as the people are most interested in, followed by discussions. This will bring out a wonderful amount of information, and all will feel interested. Be sure and get the young people to attend the meetings. Arrange to have plenty of music, so that if the meeting shows signs of dragging, the people can be roused up. Music will be found to be a great help. As it is almost impossible to provide essays for all subjects, have a question-box, so that if any desire to ask questions they can be written out and then read. Some one present will no doubt be able to answer.

Among fruitgrowers, the matter of cooperation as carried on by the Campbell Fruitgrowers' Union and the West Side Fruitgrowers' Association, both located in Santa Clara county, is an important one which all would like to know about and have fully explained, so that if there is any benefit in the system others can receive it. In each locality, the topics most important will suggest themselves to those who attempt to get up the institute, and better than a stranger could. The latter could only go upon general principles, and might not hit the subject most needed at all. Each locality should depend largely upon its own people for the success of the meeting, and very often it will be found unnecessary to "import" any talent whatever.

I have seen such good results grow out of Farmers' Institutes in other States, that I feel impelled to urge my brother farmers of California to go and do likewise, for I feel sure they will be benefited.

Let the PRESS lend its aid and urge upon farmers the importance of such meetings, remembering that, as a rule, farmers are more isolated than those engaged in any other calling, and by meeting together and getting acquainted with each other, they will be the gainers by it. The Granges, too, can help the matter along in their localities. I was pleased to see, in a late issue of the PRESS, that Sacramento Grange was about to set the machinery in motion for an institute, and others can do the same. Let the work be pushed forward now. R. P. MCGLINCY.

[As most of our readers know, the State University is participating in this effort, and will send speakers without charge to conduct meetings and otherwise contribute to their success. Information as to methods of proceeding to awaken local interest and insure success of meetings can be had by addressing Prof. E. J. Wickson, State University, Berkeley, Cal.—ED.]

Pulling Out Pear Stumps.

LAMANDA PARK, LOS ANGELES CO., CAL., Nov. 22.

TO THE EDITOR:—Pears are unprofitable here and I have chopped off four or five hundred trees—they were ten years old. Our soil is a wash soil—washed from the mountains—loose granite and earth. How can I pull these pear stumps up? They are from four to five inches in diameter. Can I rig anything to do it, and how?

E. A. BONINE.

[Who can advise our correspondent? We shall be pleased to publish information on this subject. We have published handy arrangements for pulling out vines, but it will take something stronger to draw out ten-year-old pear trees, we imagine.—ED.]

P. C. W. P. A.

Written for the RURAL PRESS by MAUDE S. PEASLEE.

On the afternoon of Monday, November 28th, a social meeting was held at Union-Square Hall by the Pacific Coast Women's Press Association.

A very critical paper on "California Literature" was read by Miss Knapp of the San Francisco *Call*, who claimed that there existed no such thing as California literature.

Musical and elocutionary numbers were followed by an address from Edmund Russell, the Delsartean. Commencing with the childhood of Delsarte, he covered in brief and well-chosen words the life and work of his master.

They Will Not Exhibit.

Written for the RURAL PRESS.

The Holstein-Friesian Association, it appears, withdraws from the six months' exhibit in the dairy department of the World's Columbian Exposition. This is unfortunate, as it is important to the furtherance of public interests that there be a full exhibit of all the breeds of dairy cattle.

The Holsteins have made such a record in regard to the large quantity of milk they are capable of producing, and in some instances of butter also, that the public, more especially that portion of it which is interested in matters pertaining to dairy cows, will almost imagine that they are being deprived of a portion of their just rights. At all events, there will be disappointment all round, and for this state of affairs the only excuse set forth is that the committee appointed for the purpose has (after visiting the breeders of 18 States) "been unable to obtain the requisite number of cows for this six months' exhibit, many breeders refusing absolutely to send their valuable animals to Chicago to remain for so long a time as six months." Truly, a patriotic set of breeders, to the breed, the owners of the "black and whites" must be! Perhaps they are enthusiastic in showing forth the merits of their cattle through private tests, but in such cases the enthusiasm points rather toward money-making ideas than to the advancement of the traits peculiar to the breed in question, such as are best made known to the public through public tests.

In view of the fact that the Columbian Dairy Association has made elaborate preparations for handling and testing milk in all its various phases of management, during the six months' trial, besides appropriating liberal sums of money for the payment of cash premiums, it looks as if the owners of high-testing cows ought to be prepared to make some sacrifice, if any is called upon to be made, which, all things considered, is doubtful.

Their failure to meet rival breeds in open contest will undoubtedly call forth unfavorable comments from the public at large, whether justifiable or not.

The question then is, whether breeders of Holstein cattle cannot better afford to send a number of their best cows to the great dairy show and prove the "world-beating" qualities that have been claimed for the breed, rather than not come forward and meet their rivals on such an occasion.

The World's Fair committee of the Holstein-Friesian Association of America, after resolving that no exhibit be made by the association, also pass the following resolution:

Resolved, That this committee will recommend the offering of liberal cash premiums for Holstein-Friesian cattle in the Live-Stock Department of said Exposition, the duration of this exhibit not to exceed 30 days.

To exhibit under such a rule would not admit of a fair comparison with the merits of such other breeds as complied with all the rules of the Columbian Dairy Association.

Warning to Millers and Flour Dealers.

Notes on the Mediterranean Flour Moth (*Ephestia kuhniella*), Zeller, from the Dept. of Entomology, Leland Stanford Junior University, Palo Alto, California.

PALO ALTO, CAL., Dec. 1, 1892.

TO THE EDITOR: This moth was first observed by Prof. Kulm, of the Agricultural Institute of Halle, Germany, in a flourmill, during 1877. Specimens were sent to Prof. Zeller, of Grunhof, and were found to be an undescribed species of the genus *ephestia*. The insect was named by Prof. Zeller, *kuhniella*, after its first observer.

The moth was little known until 1884 and 1885, when it appeared in some mills in Belgium and did much damage. Several articles appeared in English periodicals in 1887, concerning its ravages in Europe. It caused a great deal of trouble, and in many cases the mills were closed.

Very little was known about the pest in this country until 1889, when it broke out in Ontario, Canada. Much damage was done; mills were closed and some even abandoned; in one case the loss was estimated at £1000.

The fact that such an unwelcome pest has established itself on this coast is to be regretted; and the announcement that it is in our midst should be a signal of alarm to every miller and graindealer on this coast. Notwithstanding its comparatively recent appearance, it has caused much trouble to millers and flour-dealers. Every possible means should be taken to eradicate this ravenous pest from our midst. Not only are our mills in danger, but our commerce is at stake, and public health imperiled.

Any information regarding this pest will be gladly furnished by the Department of Entomology mentioned above. W. G. J.

The Olive Discussson.

REDWOOD CITY, Cal., Nov. 26, 1892.

TO THE EDITOR: Seeing rather a lively discussion on olives between Mr. Hayne and Mr. Flamant, which is very interesting, at least to me, I venture to give you my opinion for what it is worth.

There is no doubt to my mind that the Mission will hold a first-class place for a long time to come in California. It is fine for oil, for pickling delicious, and a good grower by fair cultivation. The last mentioned characteristic is also true of the picholine, which is rather a more rapid grower, but only fit for grafting. May patience attend the man who waits for a remunerative return of oil from picholines. But for grafting it is by far superior, because the graft takes so easily, easier than any other sort I am acquainted with.

About growing olives from cuttings, never take big, long sticks; especially avoid side shoots. You will find by taking the young, vigorous wood they will be at least from two to three years sooner in bearing. Nature itself teaches never to use an old, worn-out thing for a vigorous, healthy offspring. Let us have some more of this interesting subject. WM. SICKERT.

More Gopher Lore.

FULTON, SONORA CO, Nov. 25, 1892.

TO THE EDITOR:—In a late issue of your paper, November 3d, C. D. S. gives a very valuable article on "The Gopher and How to Get Rid of Him." In the main his advice is excellent, but he is in error when he says "Each burrow is occupied by a single gopher, and when one is trapped, it is well to tightly close up the opening, as no more gophers will be found in the runway." A friend of mine caught two gophers at once in a "Jolly" gopher-trap, and the late Christian Bagge told me of catching five gophers in quick succession, in the same burrow, in an ordinary steel trap.

The greatest slaughter of gophers that the writer ever assisted at was effected by shooting, in an alfalfa field. Apparently from some peculiarity in the season, the gophers were very bold in coming out of their holes to feed during the sunny hours of the day in November and December. With a double breech-loading shotgun it was easy to shoot from 20 to 50 in a day. Some boys were enlisted, at five cents per gopher, and made big wages. An overflow from Mark West creek drove the pests out of their burrows one day, and about 80 were killed with sticks in a few hours. A large part of the gophers in that field were at least eight inches long, and heavy in proportion. Many of them had an irregular white stripe on the under-side of the body. In about six weeks 1750 of them were tallied as "good gophers," mainly by the shotgun method.

We thought we had a very respectable gopher story until some one in Kern county flooded his alfalfa field, and, with the help of his boy, gathered in 1750 gophers in a few hours.

There is no excuse but indifference for being overrun by gophers. In shooting or trapping, a bounty is very efficient in sharpening the wits of a boy, who will soon become very expert in taking this sort of game. It is well to increase the bounty with the number killed in a given time. Thus, if very abundant, give four cents per head for the first 25, and five cents per head for all over 25 in one day. When the pests have been reduced to a few, it should be the rule of the owner and foreman of the farm never to pass a fresh burrow without putting a trap or a dose of poison in it. A raisin with a trifle of strychnine in it is the deadliest dose that we know of for the gopher. A few such doses can easily be carried in the pocket in a match-case, and, with the aid of a garden-trowel worn at the the hip instead of a revolver, the needs of the gopher can be supplied with little trouble. C. H. DWINELLE.

Notes from Santa Barbara.

CARPENTERIA, Santa Barbara Co., Nov. 28, 1892.

TO THE EDITOR:—Yesterday the rain began falling slowly, with a steady east wind which portends a storm here. Nearly all night the wind came briskly along. At 10 A. M. to-day we had 2¾ inches of water which, with ¼ inch in two or three light rains, makes us 3 inches so far for the season.

Some few have dry-sown grain to make hay, but now plowing and seeding will begin in earnest. We have not had rain enough heretofore to start grass much, but now, if the weather is warm and favorable, the country will put on her robe of green in a short time. Most of the season's crops are gathered and a part gone to the market. Some corn remains yet to be husked.

The walnut crop was much less than an average and much more work was required to gather and fit for the market, as many of the "shucks" stuck to the nuts, which colored them more or less; so the cost of harvesting and fitting for market was very heavy, at least twice as much per ton as in ordinary seasons. We never have irrigated our walnut trees, but trusted almost solely to nature for moisture; but this time we failed to get rain enough to make the best of crops of anything.

The bean crop is light, but there is the best of weather for harvesting, so the crop was saved in good condition. Corn is a light crop. Fruits are not up to the average. So, all along the line we have a shortage in quantity, but prices have been fair to good, so there is little reason for complaint.

As yet I have not learned what our farmers propose mostly to raise the next year, but presume Lima beans will take the lead.

The Crocker lemon-curing establishment in Montecito is nearing completion, and is an imposing structure from the public road. There is report that the proprietors intend putting in machinery for the manufacture of olive oil.

Many small groves of lemon trees are being planted and there seems to be considerable interest taken in lemon culture, and we hope it will be a profitable venture.

O. N. CADWELL.

MR. WHITE'S HOLSTEIN SALE.—The auction sale of Holstein-Friesian cattle belonging to J. H. White of Lakeville, Sonoma county, took place on Wednesday, the 7th inst. The attendance was pretty good, and considering the low prices cattle are generally bringing, the public expressed the opinion that fair value was received for those sold. Not so, however, with Mr. White, who, after about 40 head had been sold, stopped the sale, leaving about 20 head of the youngest of the heifers that were not offered. The three highest-priced cows brought $100 each. The highest-priced animal was a two-year-old heifer that sold for $107.50. The average price of 40 animals sold was about $57 each.

CONTRACTS for the new passenger and freight depot at Baden were let last week, and the work is now well under way. All the material for the structure has been delivered. The new depot, which is about 120 feet long, will answer the purpose until the completion of the new bay-shore line, when a much finer structure will be erected.

THE APIARY.

The Dovetailed Hive.

SAN MATEO, Dec. 1, 1892.

TO THE EDITOR:—According to promise, in my letter of Nov. 5th, I herewith append a description of Mr. A. I. Root's dovetailed hive. I have used a great variety of hives, but have never yet met with one which can be compared with this hive for simplicity of construction and ingenuity, and I have come to the conclusion that it is impossible to find a hive that is better adapted for the production of either comb or extracted honey.

The beginner in bee-keeping should first consider what kind of hive he will adopt, and whichever style he decides upon he should be sure it is one which will allow of the standard-size frame being used. This frame is known as the Langstroth and measures 9⅛x17⅝ inches; top bar 19 inches, and all his hives and appliances should be adapted to that sized frame.

There are many reasons why this should be done. One very good reason is that the user of an odd-sized hive is obliged to pay from 10 to 25 per cent more for supplies. Two-thirds of the beekeepers who are using any other than the regular Langstroth frame would be glad to change if they could do so without so much trouble and expense Another good reason is, that if you wish to sell out you can get a much better price for your bees if they are on the regular L frame than you can if they are on any other sized frame.

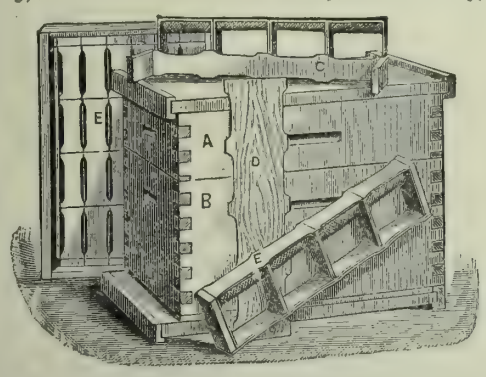
At one time I used and recommended the ten-frame L hive, but I find the bees will not work in the supers so early in the season in a ten-frame hive as they will in an eight-frame hive. Mr. Root is perfectly right in saying: "The queen will seldom lay in more than eight frames in the brood-nest. If her brooding capacity extends beyond this, unless restrained, she will go into the top story. In the ten-frame hive, Italians especially will fill eight frames with brood, and the outside ones full of honey, and this quantity of stores in the brood-nest is apt to make them quite loth to enter the super. If the lower eight frames are filled with brood just at the beginning of the harvest, and there are no more frames below, just as soon as the flow of nectar begins the bees are obliged to put it just where we want it—that is, in the upper story or supers, and hence we recommend all beginning beekeepers, who can do so, to purchase the eight-frame hive. There are those who prefer the ten-frame, but it is a safe rule usually for beginners to follow in the wake of the majority."

The dovetailed hive has a flat cover, which does away with the use of quilts, enamel cloth, or the old-style honey-board.

As I fear my letter may exceed the bounds alloted the apiarian column, I will now proceed to give a description of the hive as we find it among Mr. Root's "Implements in Bee-Culture."

DESCRIPTION.

The hive consists of a plain box (*B* in cut) of ⅞ inch pine 13⅞x20 inches outside measure, 9½ inches deep, with

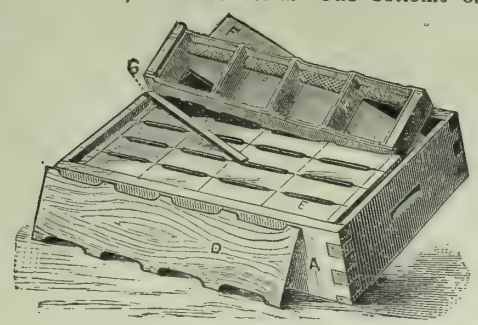


hand-holes, and rabbeted 9 16x13 16 for frames to rest; eight improved Hoffman self-spacing frames and plain division board hang in this hive, with a bee-space above and none below. The cover and bottom boards are both 14x21 inches, the cover being a good sound board with a grooved cleat on each end that prevents it from warping and keeps it in place on the hive. The bottom has a similar cleat at the back, while the one in front is leveled down even with the board to form an entrance, and on each side a strip ⅜x⅞ is nailed. The hive sits on these strips and the back cleat, forming a bee-space below the frames, leaving an entrance in front with an alighting-board two inches wide. By this means the hive is not cut to form an entrance, and the upper and lower stories are interchangeable, This bottom may be used as a cover in an emergency, or may be fastened permanently to the hive, if desirable, by two wood screws.

The supers (*A*) are the same size as the hive-body and just half the depth, 4¾ inches. They are formed by ripping a body in two, and, if desired, two supers may be used as a full body for brood or extracting frames. The special feature that gives the hive its name is the fact that it is dovetailed together at the corners, thus giving it great strength and durability, as well as simplicity of construction. If put together true, the bodies will always remain so, and when piled one upon the other the joints will be tight—a feature that will be appreciated by practical apiarists. Another great advantage of this dovetailing is the saving in freight and boxing for shipment. There is not a pound of crating used in the putting up of five of these hives and inside furniture, and on large orders this saves freight charges.

DOVETAIL SUPER WITH SECTION-HOLDERS, FOLLOWER AND WEDGE.

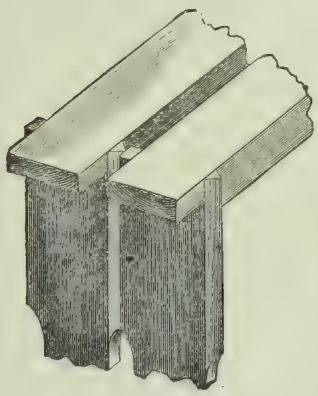
These are simply wide frames having no top-bars, but with thick end bars and bottom-bars 1⅞ inches wide, with insets corresponding to the openings of the sections. Such a holder, unlike ordinary wide frames, can be filled and emptied easily, and, like wide frames, can be shifted from center to outside, and vice versa. The bottoms of the



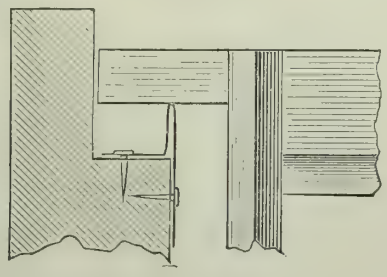
section-holders are made one-fourth inch thick, and there is a one fourth inch bee-space above the sections in the super. This is the surplus arrangement that we recommend. Wood separators are now much preferred to those of tin. They are warmer and the bees can crawl up and down on them, which they cannot do readily on tin. This, of course, saves much "travel stain" to the fine white cappings of the honey. These wood separators (*D* in cut) are slotted out and are wide enough to cover the entire length of the upright edges of the sections, as well as the horizontal edges not scored out in the sections and bottom-slats where they come in contact. When the whole is keyed up with the follower and wedge, all cracks are closed up by the wide separators, and little, if any, propolis is daubed on the edges of the sections.

In the above cuts *A* is the super, *B* the body of hive, *C* the empty section-holder, *D* the separator, *E* the sections, *F* the follower, and *G* the wedge for tightening the sections up.

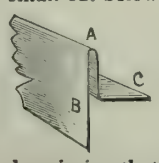
SELF-SPACING HOFFMAN THICK TOP FRAMES.



Fixed or self-spacing frames, in some form or other, are rapidly growing into favor among progressive beekeepers. After much study and experimentation on a large scale, the very excellent Hoffman frame has been adopted for the dovetailed hive. They are always ready for hauling over good or poor roads, without any special preparation in fastening the frames. Beginners do not make the blundering work in spacing them in the hive; the combs are straighter, and, with those who are expert in their use, they can be handled in less time. This frame is suspended on a tin rabbet (as shown below). The end-bars touch on each side only 2½ inches, one side being V'd to a blunt knife edge, and the other is left square as shown in the cut above. This prevents the bees from sticking the frames too much with propolis, and at the same time prevents bee-killing to a very large extent, even when the frames are handled carelessly. When the frames are handled properly, and smoke is blown down between the frames when the end bars come in contact, few if any bees will be killed. The top-bar is molded so as to leave a comb-guide in relief; it is five-eighths inch deep at the sides (seven-eighths to the bottom of the comb-guide) and is 1 1-16 inches wide. It is, therefore, when there is a bee-space of one-fourth inch above it, practically free from burr-combs, those pests that hinder the manipulation of old-style frames. The bottom bar is ⅜x½ inch. To such a comb-guide bees build their combs down better. This frame may be used in any standard L hive having tin rabbets. In putting frames together, the V'd edges on the end-bars should come on diagonally opposite sides, and should always be put together the same way.



The dovetailed hive is made for tin rabbets; but these, unlike the old style, are very much improved. They are stronger, and instead of having a knife edge that cuts the fingers, creases the top-bars and bends over, are made (as shown in the corresponding cross-section above) with a folded edge on which the frames rest. The shape of the rabbet apart from the hive is shown more clearly in the small cut below. *A* is the point on which the frames rest, and *B* and *C* are where the nails secure it to the hive, as shown in the larger cross-section. With the Hoffman, there should be a free lateral sliding motion when the frames are manipulated, and this the new rabbet permits.



Should there be anything in the above description that is not quite understood by any beginner in bee-keeping, I shall be happy to make it quite plain to him in a future letter. WM STYAN.

ON the Miner Ranch, near Lafayette, Contra Costa Co., they are boring for oil, with favorable indications. Oil has been found in the 200-foot well, but as yet not in sufficient quantity to pay.

A PROMINENT Omaha firm has sent an inquiry to several Tacoma and Seattle firms for 500 carloads of cedar shingles for spring delivery.

HORTICULTURE.

Lemon Growing and Curing at Riverside.

Mr. E. W. Holmes of Riverside gave an address at the Pomona meeting of the Southern California Pomological Society on lemon-growing and curing, which will be read with interest by all who are developing the lemon industry of the State:

At the first citrus fair, held many years ago in Riverside, I read a paper upon the lemon, and the confident opinion I then expressed regarding the desirability of pushing this branch of horticulture seems at last fully warranted by the results.

We have had many things to learn regarding varieties, stock, and the treatment of the trees, and have gained knowledge on these points through an experience that has been expensive. We have found, when at last we have grown a perfect lemon, that it is a fruit that requires a radically different treatment from that given the orange. Many that have owned small orchards have become disgusted, during these tentative years, over their failure to market the crop profitably, and have rooted out their trees and rebudded to some favorite variety of the orange. Others have found that they had undesirable varieties, or that those which were satisfactory were budded upon stock that was short-lived and yielded to disease when the tree reached a bearing age. These experiences have disheartened many, but it is through these practical demonstrations that we at last are upon the right road in lemon culture.

It has taken years to convince the mass of growers that the chance seedling, however fair in appearance, cannot be depended upon to compete with the imported fruit, and that the first step to secure profit is to grow only those lemons that possess certain essential characteristics. These are possessed by an extremely limited number of the varieties thus far available for propagation, and, though it is well that experiments with chance seedlings be made, no sensible horticulturist will to-day plant varieties whose superiority is not generally acknowledged.

It is well to consider at this point just what are the absolutely requisite characteristics of a perfect commercial lemon. It seems to me that there are three points, the absence of either one of which would put the lemon out of the desirable list. First, the appearance and texture must be fine; the size and shape as nearly as possible uniform, and the color high. Second, there must be plenty of juice with a high percentage of citric acid. Third, there must be an almost total absence of bitterness in the pulp, so that it can stand the test of cooking. It is on this latter point that many otherwise excellent varieties will fail when put to a careful test; but in my opinion freedom from bitterness is the one essential quality of a commercial lemon. Want of color and uniformity of size and shape, even a low percentage of acid, are not so objectionable as the bitter quality so common to the ordinary lemon.

While it is possible, by careful picking at the right stage of its growth, to cure a common lemon so that its keeping qualities are improved, experience justifies the assertion that it is only with the fine-textured budded varieties that the best keeping qualities are found.

There is no variety which in so many respects comes so near being the ideal lemon as that known as the Lisbon. The original tree, imported by Mr. D. H. Burnham of Riverside, has furnished the stock from which the best orchards in that section have been propagated. Unfortunately, many inferior lemons have been planted under that name, and it is somewhat due to this fact that this variety has been less popular with orchardists in certain sections than the Eureka.

The Eureka is, however, one of our best lemons, though the tenderness of this variety and its tendency to bitterness hardly entitle it to equality with its most prominent rival.

The Villa Franca will stand a far more severe test than the Eureka, is nearly seedless, strong in acid, and stands frost like the Lisbon, its only objectionable quality being its dark yellow color, and a tendency to take shapes like the Eureka.

It is not, however, the province of this paper to discuss the question of varieties, or I might refer to others which I believe are well worthy of propagation. I have made this reference in order to impress the need of securing a true lemon before one wastes time and money in preparing for the market.

Owing to the fact that the lemon ripens its heaviest crop in the fall, when the demand for it is at its minimum, many methods have been tried to cure and hold the crop until spring, when the condition of the markets would warrant shipping. Until within a few years the success of these efforts has not been great, and many have concluded that lemon-growing would never prove profitable in southern California, because there appeared to be something at fault either in the time of ripening of our fruit, or in the fruit itself. I have long been convinced that this conclusion was a mistake. No better lemons are produced in the world than right here, and I believe we shall demonstrate that we can ship just as good keeping fruit as the growers of Italy and Spain. Indeed, some of our growers have already furnished the proof of this, and when their methods are followed the trade will find nothing to object to in the California lemon.

To cure lemons perfectly they must be picked and handled as carefully as eggs. Failure in this respect nullifies all subsequent efforts. The degree of success one attains in his work is dependent more largely upon this point than upon any other.

Some of the most successful Riverside shippers have heretofore picked their lemons when just changing color and of suitable size. After being kept a short time in boxes more or less exposed, for the purpose of shrinking the skin a little, they have been either stored in trays in a dark, cool lemon-house, or else have been wrapped carefully

ly and stored in raisin sweat-boxes, which then were stacked in open sheds or barns. Treated in this way, the fruit has been kept from six to eight months, with no heavy percentage of loss, and has been sold at good prices.

Mr. Garcelon, with his double-walled lemon-house, has doubtless been more successful than most growers, but his methods have been explained at length in print and I will not describe them here. Neither will I give my own experience, but will briefly explain the plan used by D. H. Burnham of Riverside, which I must confess seems to have been superior to my own.

Mr. Burnham grows the Lisbon exclusively. He has found, like some other growers, that the best results are obtained by picking the lemon when it is of proper size, regardless of color. He picked last November all of his crop that was of suitable size, and again in December made another picking. Instead of exposing the lemons for a short time to shrink the skin, as has been the general cus'om, he wrapped them immediately in strong lemon paper. The boxes in which they were packed were lined with stout manilla paper so as to exclude the air, and between each layer was placed a sheet of the same paper. Over each box was laid another sheet, and then the boxes were stacked 14 high, completely filled with the green wrapped lemons. They were stored in a high shed open to the east, which was protected from the sun's rays by large trees. Here they remained all through the winter, untouched until opened for packing from six to eight months from picking. The percentage of loss was smaller than I have ever known.

One carload of these, packed about eight months after they were clipped from the trees, arrived at its destination in the East at a time when the market was not in the best condition by reason of the presence of foreign lemons in quantity. The agent wired to inquire if he should sell at less price than fixed, or hold them. Mr. Burnham was so confident of the quality of his fruit that he ordered it held, and though it was nearly ten months from the date of picking before the last were sold, there was not a box lost by repacking. In the face of such an experience, who shall dare to say that perfect fruit, intelligently handled, cannot meet the best foreign product on equal terms?

In view of the recent reversal of the tariff policy of the nation, it does not appear that we may look for any relief from the competition of the Italian and Spanish lemon-grower, and that we cannot, therefore, expect to obtain the fancy prices we have anticipated; but it will pay to grow the lemon even at the rates fixed by the importer, and it is our duty to prove the excellence of our goods by the use of careful and honest methods. That we shall yet demonstrate in the markets and against the strongest foreign competition the real value of our product, I am thoroughly convinced.

THE DAIRY.

The Dairymen's Conference with the Congressmen.

In the RURAL of November 27th we alluded to a meeting set for San Rafael at which dairymen were invited to confer with newly-elected lawmakers concerning oleomargarine legislation. The meeting was duly held and reported by the San Rafael *Tocsin*, and we condense therefrom as follows:

A number of the leading dairymen of the vicinity assembled and were met by Congressman Geary, Senator McAllister, and Assemblyman Taylor. Jas. Tunstead called the meeting to order and W. S. Pierce and L. Tomasini were appointed respectively president and vice-president.

Mr. L. Tomasini made a few remarks, saying that the competition of oleomargarine and butterine had reached such a point that dairymen could plainly see ahead to the time, now near at hand, when their industry would be driven to the wall.

To give an idea of the kind of competition that is forced on the legitimate business, Mr. Tomasini stated that at the price now paid by creameries for milk, it costs 30 cents to make a pound of butter. At this very time Mr. Armour is selling his Kansas city compounds as pure butter, for 15 cents a pound, and making a princely profit out of it. Of course, what dairymen desire would be the passage of a law prohibiting the manufacture of the article altogether, but as that was out of the question the next best thing would be the passage of stringent enactments against the sale of the spurious article in any disguised form. He believed that if oleomargarine were compelled to stand on its own merits and if the consumers were duly informed of the character of the goods set before them, the worst feature of the present disastrous competition could be removed.

Congressman Geary said that he and his fellow legislators were on hand to hear any suggestions that might be offered to the law-making department of Government. They all honestly desired to be of service to the dairymen of California in their struggle against a great wrong. They wished to be informed of what was needed in the way of laws and they would then spare no pains to secure their enactment.

Senator McAllister, who has been reading up on the oleomargarine question extensively, was called on and gave a highly interesting summary of the laws of other States relating to bogus butter, which he had compiled with great care. He drew attention to strong features in the laws of Iowa, New York, Masssachusetts and Indiana and showed that by a union of the provisions of those States a cast-iron law could be enacted. He was confident that a Dairy Commission, armed with the ample powers that the States elsewhere conferred, would absolutely put a stop to the sale of oleomargarine as pure butter. Senator McAllister specially commended the Iowa law as being particularly direct and to the point.

Assemblyman Taylor thought better results would fol'ow from a general law against food adulteration than from a specific law against oleomargarine. He doubted whether a bill directed against one form of food adulteration could be passed, whereas a general pure-food bill would command an almost universal sympathy.

Mr. Geary differed with Mr. Taylor. He advised the dairymen to confine their efforts to their own case and not try to legislate for other people's grievances. A general bill against adulteration might command a little general sympathy, but nothing more. On the other hand, it would inevitably invite a kind of opposition that would prove fatal to any bill in the present condition of political morals. Moreover, Mr. Geary thought it a big mistake to imagine that the cows didn't have plenty of friends. The dairy interests of the State were widespread, far-reaching and powerful. In his congressional district there was not a single senator or assemblyman elect who did not have a number of constituents interested in or dependent on the butter-making industry, which they would not dare to antagonize. The dairymen, he believed, would have no difficulty in passing any laws within reason for their protection against spurious compounds without dragging in any outside issues to bolster up their case.

Various suggestions were being made as to the details of proposed legislation when Mr. Hollis Hitchcock arose and said that while the meeting had been profitable and interesting, he did not think it would be able, off-hand, to settle the many intricate questions involved. He suggested that a committee of leading dairymen be appointed to prepare drafts of laws, State and national, to meet the situation and present the same to their representatives. Some discussion followed on the proper number to constitute this body and it was finally determined that a committtee of five be appointed by the chair, this to send an invitation to each of the dairy counties to send three representatives to join in their deliberations.

On motion, the following were appointed as the committee: Hollis Hitchcock of Bodega, P. J. Shafter of Olema, W. S. Pierce of Petaluma, Joseph Bloom of Olema and Wilfred Page of Penn's Grove.

Among the prominent dairymen present were W. S. Pierce, Hollis Hitchcock, L. Tomasini, J. Martella, J. Bloom, J. Silacci, A. G. Scown, B. T. Miller, A. F. Pacheco, Dr. B. F. Lyford and many others. There was an earnestness and spirit throughout the meeting that argued well for this formal declaration of legal war against bogus butter.

A Model Dairy Barn in Humboldt County.

Dairy readers will be interested in a description of one of the most complete dairy barns we have ever seen. While it is built to shelter and feed 40 cows, yet on a smaller scale could be used with equal advantage. The barn has just been built by C. M. Peterson, president of our County Alliance, on his home ranch near Ferndale. The hay barn is 62 feet in length, 24 in width and 24 high on the sides, with a center hip-elevation 10 feet high and 3 wide for working a derrick hay fork. The hip-elevation is supported by posts from the sills, and from their top the track for the hay fork is hung on level bearings. The ventilators in the top can be open or shut by ropes reaching to the floor. Between this and the cattle barn, on each side of a 14-foot driveway, are storage-rooms for roots. To their rear are stalls 10x14—on one side for the male, the other for sick cows. The cow barn is 70 feet long by 42 wide. It has a driveway through it, length 14 feet wide and passes between the storage-rooms and across the hay barn, giving a straight driveway of 104 feet through the barn. This driveway on the north from the hay-barn opens into a field; on the south, from the cattle-barn toward the public road, opens into a yard 32x50 that has a tight floor two inches thick up off the ground but on solid foundation. Through the front gate of this yard by residence to the road a side gate leads to a small pasture for the mules; from another gate is an incline-plankroad 100 feet long to an elevation of 6 feet for the dumping-yard. On the other side, the gate leads to the cow pastures. The drain behind the cows is seven inches lower at the south end, and they are connected with a plank underdrain that carries all the liquids into the field.

As all the floors are water-tight, underneath, inside, and the surroundings of the barn are free from the filth and moisture that are such prolific sources of disease to cattle. The cow stable is divided into double stalls seven feet wide, and each stall has a plank 2x6 inches set edgewise in the center to prevent one cow from laying down in the space allotted to the other. The outside partition to each stall is 4 feet high and 4 inches thick, made by double boards on each side of a two-inch upright. The tie-up for each cow is a clevis 20 inches long with a ring swivel, and held by bolts at each end that pass through the upright. The chain that goes around the cow's neck is tied in the center to the swivel by a small rope that can be cut in case of fire or trouble with the cow. The ring in the clevis slipping up and down, allows the cow to lie down or get up, and the swivel prevents the chain from twisting. On one end of the chain is a ring, the other a tee. Each cow finds her own stall, and Mr. Peterson claims he can tie the 40 cows in four minutes. A nail is driven in the upright 18 inches above the clevis, and the ring end of the chain is hung on it when the cows are loosened to hold the chain convenient for use.

The manger is two feet wide; elevation next to the cow is a 2x8 plank set edgeways. It cannot be any higher or it will interfere with the cow getting up. The farther side first has a plank the same as front, but from its top two feet wide is the back of manger sloping into the driveway, the top being 2 feet 4 inches above the floor. Above the manger is a swinging panel or gate that can be fastened in the stall to lengthen or shorten it, which allows the hay or roots to slide into the manger and prevents the cow passing into the driveway, but can be turned over and out of the way. The floor from the manger to the drain is 5 feet 6 inches for large cows; for three years old, 5 feet 2 inches; for two years old, 5 feet, and making the drain six inches wider at its lower end. The drain at the upper end is 20 inches wide and six inches lower than floor of stall. On the other side of the drain is a four-foot wide passway, four inches above the drain. In the wall by the side of each passway are two milk closets for large cans that hold the night's milk. These closets have open lattice floors and a hole in the top of the door. They are opposite the ventilators in the top of the barn. The heated air from the cows passing up through the ventilators creates a current of cold air rushing in from the bottom of the closets around the milkcan. Any description must give an imperfect impression, therefore to those intending to build, we think it would pay them well to see the barn for themselves.—W. F. HARRIS in Eureka Watchman.

Dairy Practice in the Sacramento Valley.

The Butte *Register* has the following notes on dairy methods and appliances in the upper Sacramento valley:

B. F. Walton, of Sutter county, is one of the most successful dairymen in the upper part of the State. He owns 80 cows, 60 of which are continuously in milk. He pastures them, but feeds in addition grain-hay, pumpkins, and in winter chopped alfalfa. His stock is Jersey and Durham crossed, and he is confident these breeds cannot be excelled as butter-makers. Two men do the entire work connected with his dairy, including the milking, butter-making, feeding of hogs, etc. His cows average three-fourths of a pound of butter per day, and for this he obtains from 25 to 40 cents a pound, according to the season. His milkhouse is constructed of brick, and outside of the brick wall is a space, then a board wall, then a second space, and lastly the outside wall. The building is thus rendered cool even in the heat of summer. The floor is cemented, with an inclination to it so a hose can be freely used, and the water will quickly run out from the room. Mr. Walton found by dehorning the cows that the flow of milk was largely increased. He attributes this increase to the fact that the cows were no longer afraid of being hooked, and would all eat and drink together, and all would seek shelter from storms by huddling together like sheep. A'l the cows soon increased in flesh after the horns were removed, and he recommends the practice to all dairymen. While economy must be exercised, yet money can be made if the owner will learn the work thoroughly and pay careful attention to it.

The famous Rancho Chico dairy is the largest in Butte, and from Col. C. C. Royce we have obtained the following data that will be read with interest: "We milk about 135 cows. They are of Shortborn, Durham, and graded Holstein, one-half to three-quarters. The product of milk for the past year was 95 375 gallons, 26,200 gallons of which was sold in Chico, and the balance was run through a separator at the dairy where the cream was separated from the milk; 1853 gallons of that cream were sold in Chico, the balance made into butter, producing 2293 pounds. This butter was sold in Chico at the rate of 30 cents per pound in summer and 35 cents in winter. The cows are milked in the barn and are fed twice a day bran and cut hay, at the rate of 6 pounds of bran and about 18 pounds of hay per cow. The hay is cut in a feed cutter, which is run by a six-horse power engine. It is then placed in a large box and mixed with the bran and then thoroughly soaked with water, after which the box is closed and the feed is then steamed, from the engine, and in four to six hours is ready for use. We also feed in the pasture about four tons of pumpkins daily and a liberal quantity of beets, which are scattered over the ground and the cows are allowed to eat all they desire. At night the cows are driven into a large shed with racks filled with good wheat and oat-hay. The calves are separated from their mothers as soon as born, and are tied in a shady place and given their mother's milk for two weeks; after that time they are fed on skimmed milk from the separator, coupled with about one-quarter of a pound of oil-cake meal daily, together with three-quarters of a pound of dry bran and what hay they want. The water given to the cows is pumped from the well by steampower, so they can have good, cool water to drink when dry. Salt is placed in boxes where the cows can have what they want at all times."

Progressive Dairying.

EDNA P. O. Nov. 22, 1892.

TO THE EDITOR:—I am much pleased to see the RURAL PRESS entering a little more into the dairying interest. The English Record of the Durham herd published last week was very interesting to me, and will be to any intelligent dairyman, and is withal a comparatively new field of experimental stations, bulletins and advanced dairymen's reports in this respect: Records have not been exactly stated, but only more general reports. The report you printed is worth a hundred general average reports to me, especially as this report is supposed to show more than average yields. It makes me, however, pat myself on the back. Why, you will see when I send you a tabulated report of my Holstein herd, which I intend to do soon. In the meantime, let me assure you that "creme de la creme" of dairy literature is in that article, and the dairyman who cannot learn by such means is indeed a silurian.

E. W. STEELE.

SPRUCE (or Washington pine, as it is sometimes called) will in the near future become one of our most valuable woods. Some day the clearings in the forest will be full of woodenware factories. Spruce is especially valuable to the manufacturers of tubs and pails, because it does not communicate taste or odor of the wood to the contents. This fact is especially pleasing to butter makers, as butter very easily absorbs the flavor and odor of the utensils in which it is packed. The same is true of nearly every article of food packed in tubs, pails and boxes.

TRACK AND FARM.

Old and New Breeding Farms at the South.

The breeding of thoroughbred race-horses in California is in its infancy, although the Maltese-cross jacket of "Lucky" Baldwin has been a familiar sight upon the Eastern race-courses for the past ten years. His breeding-farm at Santa Anita has been so frequently described by Eastern visitors in the journals of the Atlantic seaboard that any reference to it now would seem superfluous. Hence the writer will pass on from Mr. Baldwin to other parties.

Hon. L. J. Rose, in 1890, undertook the establishment of a stud of thoroughbred horses at Rosemeade, near the San Gabriel mission; and he did not lack for good material in doing so, either. He met with so many reverses in the very outset of his career, having lost over $50,000 worth of horses by death alone in the short space of 20 months, that he concluded to dispose of everything at auction and retire from the unequal struggle. Among those which died was a yearling colt by Sir Modred, which cost him $5000 in New York; and a full brother to the famous Flambeau, the premier stallion at Palo Alto, for which he paid $6000. Added to these were sisters to the noted Australian horses, Sheet Anchor (Melbourne cup of 1885, two miles in 3:29½) and Prince Imperial (Hawkesbury handicap of 1884, one and a half miles in 2:35), both of which died at sea after less than 20 hours' illness. With such disheartening rebuffs coming in so short a space of time, the only wonder is that the genial Master of Rosemeade did not abandon his new undertaking sooner than he actually did.

At the same time there is good money in breeding thoroughbred horses for racing purposes and selling them at auction as yearlings. The great profit in racing lies in the sweepstakes for horses of two and three years old, as may be seen from the following table of winnings made in 1891 by various owners of horses, confined entirely to horses of those ages. The rapid increase of sweepstake races at the East compels us to omit 66 races below the value of $5000 and give only the stakes of a value above that sum:

THREE-YEAR-OLD EVENTS.

Realization, Coney Island	$ 30,580
Omnibus, Long Branch	19,810
American Derby, Chicago	18,610
Hickory, Morris Park	18,020
Lorillard, Long Branch	17,255
Stockton, Long Branch	5,970
Tidal, Coney Island	5,770
Brooklyn Derby, Brooklyn	5,270
Jerome, Jerome Park	5,250
Belmont, Jerome Park	5,070
Stevens, Long Branch	5,040
Total	$131,475

TWO YEAR-OLD EVENTS.

Futurity, Coney Island	$ 61,675
Great Eclipse, Coney Island	24,353
Junior Chmp., Long Branch	23,800
Great Trial, Brooklyn	22 095
Great American, Morris Park	16,650
Nursery, Jerome Park	13,880
Hyde Park, Chicago	10,550
Great Eastern, Coney Island	8 663
Carteret (hdp.), Long Branch	8,645
Juvenile, Jerome Park	8,260
Expectation, Morris Park	7,300
White Plains, Morris Park	6,900
Dunmow, Morris Park	5 990
Criterion, Long Branch	5,490
Hopeful, Long Branch	5,325
Total	$229,576

The foregoing tables go to show that there is nearly twice as much money in a good two year-old as in a good three-year-old; and even beyond this the tables go to show that out of 41 sweepstakes worth over $4000 and less than $5000, there were 28 won by two-year-olds. The returns for 1892 will not be complete till January, 1893, but they will show that the value of these juvenile events has increased about eight per cent in the past year. The reason for disposing of thoroughbred colts at auction is that the breeder gets the advantage of competition in every instance; and the reason for selling as yearlings is that the sweepstakes close at that age, thus throwing the expense of training and development upon the purchaser rather than the seller. In other words, it obliges the gambler to advertise the breeder's stock. Col. Harry Thornton of San Francisco sold 11 head last year at an average of $404 50, the best price yet realized within the State, but Mr. Haggin has more than doubled those figures on half a dozen occasions, after mixing in with his valuable Sir Modred and Darebin colts a precious lot of weeds got by such outcasts as Warwick, Milner and John Happy.

Mr. Baldwin has announced that he will not race next year, but will sell his yearlings at auction in Chicago or New York, but the writer does not take much stock in the story. In the ten years that he has raced at the east there have been but two years that his balance was on the wrong side of the ledger; and on two occasions his winnings in purses and stakes were in excess of $80,000. So that the writer does not believe the host of Santa Anita will relinquish the sport so easily; and whatever else may be said against Mr. Baldwin, his horses were always "out for the money" when he was present in person.

Two small breeders in this neighborhood (any person is called a small breeder with less than 20 mares) have started with fair chance for profit. One of these is Mr. W. J. Thompson, agent of the Santa Fe railway at Glendora. He has a very handsome old horse in the person of Conveth, who took the first premium here at the late district fair. Conveth is 15 years old, and bred on royal lines, being by Favonius, winner of the Derby of 1873, out of Cachucha by Voltigeur, Derby and St. Leger of 1850, from Ayacanora (dam of Camelia, that ran the dead heat for the Oaks with the French mare Enguerrande) by Irish Birdcatcher, from Pocahontas (dam of Stockwell, Rataplan and King Tom) by Glencoe. This gentleman has five thoroughbred mares of various ages, two of them being by John W. Norton, a worthy son of Bonnie Scotland.

The other one to which we refer is Mrs. Susan B. Wolfskill of Santa Monica. This lady's love for thoroughbred horses comes to her as a legitimate inheritance, as her father, James Moore, of Woodland, Yolo county, brought the first thoroughbred mare that ever crossed the plains. This was in 1852, and the old gray mare was called Ada Byron when she left the East. But just at that time San Francisco was having a craze over Lola Montez, and Col. Jack Gambill leased the racing qualities of the mare and named her after the fairy of the footlights. She won the first race of three-mile heats ever run on this coast, and the race took place on a Sunday. The famous old gelding Wake-up-Jake, then masquerading as Aleck Hensley, was second in the race. From this old mare are descended quite a number of clever performers, Hotspur and Jim Douglass being the best. The former horse holds the world's record for one and three-quarters miles.

Mrs. Wolfskill and her genial husband (who disclaims any ownership in the horses) reside upon a beautifully wooded knoll about four miles this side of Santa Monica. There she has nine head of thoroughbred mares, the oldest being Yoline, 24 years, the dam of Jim Douglass and granddam of Hotspur. About 18 months ago she purchased from Samuel Gardiner of Bundoora park, near Melbourne, the four-year-old stallion Plenty, by Suwarrow (the fastest three-year-old of his time), out of the famous New Zealand mare Lurline, which was also the dam of Mr. Haggin's famous horse Darebin. With such a start, Mrs. Wolfskill (who is to California what the Duchess of Montrose is to England) will be sure to succeed if she will only sell her yearlings, confine herself to breeding operations and let the purchasers do the betting. The sales of the Belle Meade farm (Tennessee) averaged something over $1800 per head for 82 yearlings disposed of at auction last June.

The alfalfa of Southern California is a godsend to the breeders of high-class horses for either gait. A crusade was made, several years ago, against this valuable herbage plant, but I am glad to say it has nearly reached its quietus. Stamboul, the king of trotting stallions, was brought up on alfalfa, and so was his handsome little half-brother, Alcazar. Frank Reynolds of Tocal, N. S. W., has bred several of the finest horses ever foaled south of the equator (notably Melos, Arsenal and Cardigan), and has never used anything but alfalfa for his pasturage and hay-food since his visit to California in 1882. People who doubt the excellence of alfalfa should consult the records of Mr. Reynolds' gallopers and of Mr. Rose's trotters. They will be found interesting reading to those who have sought, in years past, to decry the excellence of this superb herbage plant, whose nutritive powers have aided in the development of so many horses in this State. Alfalfa is a great source of wealth to southern California, and the breeding operations of the future will go far to establish its excellence, if it be not already confirmed by the "logic of events."—Hidalgo in Los Angeles Herald.

POULTRY YARD.

A Petaluma Poultry Yard.

Recently, a representative of the Petaluma *Courier* happened to be passing a model poultry farm in the environs of that city, and being charmed by the air of neatness and completeness, of system and order about everything on the premises, seized the opportunity to converse with the intelligent proprietor concerning his methods and experience and, so far as he was willing to disclose them, the results. In reference to these matters, there was no desire for concealment, and the *Courier* gives the following description:

The premises are attractive. Fronting on the main road—perhaps 200 feet distant from it—is a neat modern cottage, of good architectural design, well-finished and commodious. In front of it is a fine flower garden, surrounded by a well-trimmed quick-set hedge. Here and there are palms, cypress trees and a couple of vine-clad arbors. Back of the house is a bright barn and other outhouses and a windmill and tank of improved pattern. Adjoining the flower garden is a plat of a few acres in vegetables, principally kale for poultry feed. On the knolls in the rear are coops, hen-houses, brooders, etc., all kept freshly whitewashed and perfectly clean. At convenient intervals are watering-cans, all connected with the windmill tank and constantly supplied with pure water; automatic feed-boxes; abundance of sand, gravel and pounded bones and oyster shells (for which purpose a small mining rock-breaker run by waterpower is used), and here and there are deposits of wood-ashes, covered and sheltered from the rain.

Mr. Burdick, the proprietor, is a widower with three children—two boys aged 12 and 14 respectively and a daughter of 17. He and his family, with the assistance of one hired man, "run the ranch." He is a subscriber to several standard poultry journals, is wide-awake to every improvement, keeps a strict account of receipts and expenditures, and conducts his business on scientific principles, not only as to the selection of stock, but also in the matter of feeding, tending and the utilization of waste.

For instance, in the latter particular: Having bought beef-heads and other scraps from the slaughter-houses, to provide animal food for his poultry, the surplus bones are worked in around the roots of his grapevines, of which he has a goodly number, and the effect on the crop they bear, and the quality of the grapes, is marvelous.

He has four Petaluma incubators of 300-egg capacity and a number of smaller ones. His stock averages about 600 hens. He hatches more or less eggs throughout the year, but on the largest scale from November to May. His receipts during the present year have been as follows: In January he sold 53 dozen broilers, for which he realized $218.75, and 458 dozen eggs for $136.20, which, with a few hens and cockerels, ran his receipts for the month up to $370.50. In February his receipts were $312.25; in March, $340.20; in April, $318.60; in May, $406.75; in June, $414 80; in July, $302; in August, $288.70; in September, $315.30; in October, $243.60. Total for the ten months, $3312.70. Total expenses—wages, feed, transportation and living—$1446 30. Net profit, $1866.40. His place embraces 70 acres. Next year he expects to carry an average stock of 900 hens—all White and Brown Leghorns—though he has an idea of putting a colony of Brahmas on an adjoining tract. He does not consider them equal to the Leghorns as layers and foragers, but thinks that the larger body and consequent higher price for broilers will more than compensate for these points of inferiority. In this matter, however, he will make a prudent experiment on a limited scale to begin with.

The poultry business as conducted by this gentleman (and he is only one among many in this vicinity) is safe, pleasant and fairly lucrative. He started in 1886 with less than $1000 of capital.

Management of Poultry.

Poultry should not be crowded; they require room both in the house and the yard. Thorough cleanliness is indispensable for health. Buttermilk from a creamery at five cents a gallon, with wheat, oats and bran, is an excellent food; the solid articles may be mixed with the milk, or the milk will be taken as drink with avidity. A house for 50 fowls should be 24 feet long and 10 feet wide, the height at front 8 feet and at rear 6 feet. The floor is best of earth, and the nest boxes may be shallow and 16 inches square; three inches is deep enough. A good inclosure for fowls is wire netting, or a fence made of laths two tiers high if small fowls are kept. Fowls will eat a large quantity of grass, and should have a good run where they can get this.

Avoid any food, however cheap, if musty or spoiling.

Choose lean meat for the chicks or hens when buying.

Separate the sexes during the moulting season when it can conveniently be done.

A little tincture of iron in the drinking water is an excellent thing for moulting fowls.

Give the young stock good care and keep them growing steadily and fast with proper feeding.

Wire Fences in Winter.

It cannot be denied that by the introduction of wire netting for fencing, the cost of confining poultry has been greatly reduced, for the wire fence is not only durable, but can be easily constructed. During the winter season the usefulness of the wire fence depends upon how it is arranged. When the cold winds come from the north and west the hens must remain inside the poultry-house or be terribly exposed, as the open wire does not serve in any manner as a protection. When erecting a fence this fact must not be overlooked, as much of the usefulness of the hens in the winter depends upon warmth and protection from high winds. Wind-breaks are always serviceable, but they are not easily made or grown. When wire is placed in position, let it be above two feet of boards. That is, when making the fence, use two feet of boards at the bottom, not only as a protection against winds, but also to prevent the birds from pecking each other. The boards also make the fence higher and stronger, thus preventing flyers from going over it, as well as keeping dogs from breaking through.—The Farm and Fireside.

VEGETABLES FOR POULTRY.—The hens will be benefited if given ensilage or cooked roots as a portion of their diet. Such foods assist in keeping them in condition and promote the appetite. One of the causes of failure to get eggs in winter is the sameness of diet. The hens like a change, and show their appreciation by their egg production. All kinds of vegetables will be highly relished by them, and will lessen the cost of the feed.

CORN FODDER FOR DUCKS.—Take the blades of corn fodder, cut them fine with a fodder-cutter, scald them, and leave them in the tub all night. In the morning sprinkle the mess with bran and corn-meal, moisten with warm water again, and feed the mess to your ducks. The result will be a cheap food that will be highly relished by them.

TURKEYS IN TREES.—If your turkeys insist on selecting trees, the trees should be on the south side of a house, or some other wind-break, as they will have roup if exposed to the winds. It is better to confine them in a shed for a few days and nights, providing roosts, in order to teach them to seek shelter, instead of roosting in trees.

FROM the statement made by one of the surveyors connected with the San Francisco and Great Salt Lake Railroad, that concern intends to commence active operations about the first of the year. The branch line between Fruitvale and Stockton has been surveyed, and the new line will be shorter by twenty miles than by the present line. On the first of the month the field surveyors completed their work to Reno, Nev. The route is outlined to commence at Bay Point. It will then run to Suisun bay, which it will cross at Benicia. The survey then skirts the Sacramento river to the capital city. Marysville and Oroville will be the next points touched at. The route then runs up the canyon of the North Fork of the Feather river. At the end of this it will run over the Sierras and thence to Reno, Nev. The Stockton branch has been surveyed over the Moraga rancho, and will enter through a tunnel about two miles above Mills' Seminary. The surveying party has been ordered to report for duty on the 2d of January.

THE HOME CIRCLE.

The Good Old Times.

What easy times our fathers had! They lived a natural way.
To earn a half a dollar then they had the whole long day;
Some fourteen hours did they have this meager sum to win,
The whole long, blessed day, to earn a half a dollar in.

How light their lot compared with ours! We have to spurt and spin,
We who are granted but six hours to earn twelve dollars in.
Two hundred dollars in a year was all they had to earn,
But we must earn five thousand—will those old days ne'er return?

And they had twelve months to earn it, fourteen hours to the day;
But we have to have vacations which steal half our time away;
We've only six hours in the day and eight months in the year
In which to earn five thousand—ah, too great the strain, I fear!

They had long to earn so little, but our hard life is such
That we have little time to work in order to earn much.
How rich our fathers were—in time—how prodigal and rash!
What vast amounts of time they gave for small amounts in cash.

And how we sigh for those old days of moderate events,
When one had fourteen hours in which to earn his fifty cents;
But now we work like galley slaves, and wreck and waste our powers
For sixty cents in sixty seconds–ah, what a life is ours.

—S. W. Foss.

The White Lady of Borax Lake.

Written for the RURAL PRESS by LILLIAN H. SHUEY.

(*Concluded from last issue.*)

III.

Meanwhile Richard Fielding had had more time than he needed to regret his undue sensibility about his appearance.

The long evenings at the camp alone were becoming tiresome. He minded it less when Tom reported that he saw nothing of Miss Earl, and he said revengefully that he thought a woman of taste and fashion would not care to spend her evenings with a wild man of the woods. Tom stood it, for he thought Dick's repentance was plain enough. He had sent to town for a shaving outfit, and had employed the farmer's wife to clean and mend his coat. But the fatal error could not be mended, and Tom still went whistling over the bluff and Dick staid alone at the camp.

But he was getting a great deal of rest out of it. His mind was in a quiescent state; it had at last become easy to forget his cases and his books.

He found it very pleasant to lie in the hammock in the moonlight, and think over the few pleasures his hard work had been allowing him. And all such thoughts brought to mind the face of Florence Earl—at the opera so fair and thoughtful, at the dinner so gay and bright, at the reception so proud, and at Dr. Stebbins' church so pensive and spirituelle. At times when with him she had seemed so happy and trustful, again so cold and reserved.

He was running over such thoughts one evening, while lying motionless, looking over the white lake shore and scanning the brushy outlines of the bluff above.

Suddenly he sat up and tried to rub a cloud out of his eyes. Then he tried his eyes again, and rubbed again. But it proved not to be one of his tired-brain symptoms. It was really a white mist or spot on the lake shore. As he watched it attentively, the spot or shape moved on, following a long white path that ran nearly across the lake.

At the extreme point it stopped, and as it stood by the dark background of the water it seemed to take on the form of a slender woman. For several minutes it stood definitely outlined, and then, losing its shape again, it retraced the white path, followed the white shore northward, and disappeared by the bluff. Fielding concluded later that it had been some kind of an optical illusion, but the next night he saw the same phenomenon for the same length of time. Then he knew he was being treated to the best attraction the neighborhood had to offer—the genuine White Lady of the Lake.

He decided at once to distinguish himself by solving the mystery—it might be found that the sinning Mrs. Marcy never died. He had once been a good runner, and he now started at full speed, his mind intent upon taking possession of the place where the person or spirit made its exit from the long white path to the shore. But the Lady of the Lake seemed at once to become aware of this audacious advance on her solitude, and began to run or glide as swiftly toward her usual point of egress. Fielding had ceased to think, his sole object being to head off something that was fleeing, white and phantom-like, before him. He accomplished his object—he stood directly in the path of escape. The White Lady attempted to push by, but he threw out his arm and stopped her. Then the White Lady, with a trembling and indignant voice, said:

"Sir, don't you touch me; I have help at hand."

The white skirts she had been holding up fell about her feet, the white zephyr shawl fell from her head and, tall, beautiful and angry before him stood Florence Earl.

"Oh, pardon me, pardon me," cried the astounded Dick. "Forgive me on any terms. I thought it was some trick of Dermont's, that is, at the last, when I stopped you."

Florence understood, but was silent.

"Won't you speak to me, Miss Earl? I am so sorry. Did I frighten you?"

But she seemed to be overcome with emotion or fatigue.

"I will go home," she said. "They are at the top of the bluff."

"Who?"

"Mary, the old Indian cook, and all the ranch dogs. They come with me every night."

He took her arm deferentially, feeling like a criminal, and walked with her to the foot of the bluff. He would have let her go without a word, he had made such a fool of himself.

But she hesitated, then turned nervously to him.

"I did not come down here to attract your attention, Mr. Fielding; being all in white, I thought you would not see me." Then with an indignant ring in her voice, "but I suppose you won't believe me, you already think so ill of me. But I am sure I think ill enough of a man who will mistreat a girl in a place like this, just because you have found out my private history."

Fielding was astounded.

"Mistreated you, Miss Earl; Florence, what do you mean?"

Her voice trembled. "You refused to come where I was with your friend! 'A sick old man,' indeed! You know my sad story and you showed me that you despised me." She dropped her face in her hands, sobbing.

"Dear, dear girl, what can you mean?" he said. "Why, I was too dirty and rough to come, don't you know; and when I got ready I had no invitation. What could I do? I have been waiting for Miss Graves to ask me to her house. Nothing was further from my thoughts than offending you. Why, Florence, I—I, why, you know I love you. Darling, don't cry. Mistreat, despise you! Never! Florence, I adore you. Look up, and promise to be my wife."

He had ventured to take her hand and gently encircle her waist with his arm.

She had ceased to sob, but in a moment she drew away.

"You are very generous and noble," she said, "but I cannot let you ask me to be your wife. I cannot become any one's wife; I am too proud. You know the shadow that is on my name. You know about the story of Borax Lake. That was my mother. I am unhappy Florence Marcy. Mr. Earl is my uncle. O, it is dreadful, what I have suffered. My uncle told me only a few months ago. I always supposed it was my father who died in the city. Marian does not know at all. But I came up here just to see these sad scenes, and I came down here by night to think it over alone."

She was gathering more strength to speak of it now.

"You know about the box, they claim the tramp stole? I think I know where it is. My father used to take me in a canoe out to the rock under the bluff, and he had a place in the rock where he kept a box; I think it must have been an iron box, a small one. It has all come back to me since I came here. I wish I could get it. There might be some clue in it. I can't believe my mother was wholly to blame, and for her sake I cannot become the wife of any one. No, Mr. Fielding, do not speak of it again. Listen, what is that?"

"Miss Flo! Miss Flo!" sounded from the bluff. It is old Mary calling me. I must go now."

She snatched a long, black, circular cloak from the brush and fled up the bluff road before Fielding could protest.

IV.

The next day was a miserable one to the two young men. Fielding accused Dermont of not wishing him to go up to the farmhouse, and Dermont retorted by asking him how he could get an invitation for a sick old man. Then Fielding lay in the hammock and complained of headache; he said it was too warm to hunt or fish, but he was willing to go out on the lake and shoot birds. Dermont said there were no birds there. Toward night Dermont proposed that they go to Ridgetown on horseback for the late papers. He then passed over Fielding's protestations and groomed and saddled the horses.

The truth was, Marian and Tom had grown tired of the awkward condition of things and had determined to bring about a meeting between Fielding and the two girls and risk the consequences. The plot was laid in Ridgetown.

Marian also had had a restless day with her companion. Florence, sad and silent one hour, the next would dash into a perfect whirlwind of gaiety. When Marian proposed an evening horseback ride, Florence was delighted.

Mr. and Mrs. Graves, Mary and all the ranch-dogs were present to see them mount the two stock-herding ponies just home from the stock ranch.

Marian had several calls to make in town, coaxing Florence from one house to another till she was tired. Then they went to the parlor of the hotel and Marian ordered the ponies brought around. Florence was in gay humor, and favored the passers-by outside with dashes of lively playing at the tiny piano. She became aware that some one had entered the room, and turned from her seat to find herself face to face with Dermont, who had piloted Fielding in also on some flimsy excuse.

Dermont and Marian were both amazed at the curious result of their plot. Florence gave the tips of her fingers to Dermont and a look of scorn and passed on to Fielding. A word or two passed between them, and they went out of the room.

Dermont and Marian could only follow wondering, mount their horses, and go clickety-clack after them down the stony street and out of town.

The ride was glorious. The moon was rising in their faces, and the slopes and hills around were just softening their outlines in the brightness. As the first couple came to an abrupt rise, their horses slowed to a walk, and Fielding turned to his companion, whose sweet pale face was clearly outlined over her black habit.

"Florence," he said, "now tell me at once that you are going to reverse your cruel decision of last evening."

She drooped slightly in the saddle and turned away her face.

"No, no," she said, "I cannot."

"Not for love, Florence?"

"Not as I love you, I cannot. I know I have brought sorrow already to my uncle, whom I love."

"Florence, Florence," he cried, "it shall not be so. You must be mine."

She threw his hand from her arm, and her horse bounded up the hill. He could see that she was plying the whip to get away from him. He fell back angry with himself for his impetuosity. By the sound of her galloping horse he knew that she had taken the road to Borax Lake.

When he came in sight of the south bluff, he saw her on the edge motionless on her horse looking down into the valley.

When Tom and Marian came up after a time, leisurely, two mounted figures were looking silently down. They were looking intently at something, so the newcomers rode quietly up to see. There was a dim light in one of the windows of the old Marcy house!

When Fielding saw that Florence was silently weeping, he slipped from his horse and stood by her.

It was Tom who spoke first. "If that's a ghost's light, I'm going to see."

"Hold on, I will go, too," said Fielding.

The girls drew nearer each other and clasped hands while the young men reconnoitered in the valley.

It seemed ages before Tom returned. "Dick says, come down," he said, "we have found some one."

The three went down on horseback.

"Dick says you must come in," urged Tom, assisting the girls to dismount, and tying the horses.

They followed him into the large front room of the desolate house. It was furnished with the wrecked dust-covered remains of the Marcy furniture.

On a ragged lounge lay an old man in a state of collapse and exhaustion, and Fielding was giving him whisky from a spoon.

"Stand back, please," he said, "give him air."

Shortly, he began to revive; he opened his eyes and looked at Fielding intelligently.

"It's all up," he whispered, huskily "You'd better send me to the poorhouse. It won't do me no good if I do find it. It's hard to give it up. I've been back every summer for years to look, and now I'm so old and so blamed weak and sick."

"He's out of his head, poor fellow!" said Tom.

"What is it, my good man," urged Fielding; "what do you want to find? Perhaps we can help you."

The old man groaned, but grew stronger.

"A little more of that whisky, sir. No, you bet I don't want no help. But you've found me out, and its all up now. So long as folks thought it wuz a ghost, I was all right."

"I'll help you anyway," said Fielding, pouring down more whisky.

"And divvy?"

"Yes, of course."

"Well, it's that Marcy box, full of diamonds and money. I'm the old cuss, you know, that had the smallpox here. One night Marcy come home from town, and I saw him put money and things in it. And I hollered out, says I: 'Look out, young fel, I'll git that.' 'No you don't,' says he. 'Well,' says I, 'it's as much mine as yours. It belongs to that little gal and her pa and ma that's skinned out.'"

Then Florence screamed and ran forward and knelt down before the tramp.

"My father and mother," she cried, "did they run away together? O, did they?"

The old man looked into her eager face. "Why, you dear little gal, you're the very one. Of course your pa and ma run off, scared to death, both of 'em. They didn't die, did they? I never asked no one. I just snooped around here nights."

Florence bent over him anxiously.

"Are you sure my father went away?"

"Well, I guess I knowed them apart. It was Tom Marcy; I'll swear to it."

If you can prove it, my poor man," said Fielding, "I will reward you."

"Well, then, I reckon I can do it. Anybody would have found it out, if they'd a rummaged this old trap as much as I have. In that room there, there's an old desk, and a little drawer round on the side. I read the letter that's in there wrapped up in a silk handkerchief."

Taking the camp lantern, the four young people stood before the old, decrepit desk, and Florence reverently took the letter from its yellow covering. But her hand trembled and her eyes were full of tears, so Marian took it and read it aloud:

To My Daughter Florence, if I Die: If my little girl should be saved, I want her to have th's letter, for I know she will be turned against me. There has been an awful scene here. Tom's cousin thought I would flee with him from this sick man, and because I would not he has turned against me. He says, when we are gone, he will blacken my name and pass as Tom himself. I know he can and will do it. And I leave this statement for my girl if she lives. We are all exposed to the awful disease, and we cannot tell, for they would not let us travel. My dear child, your papa and I will leave in this driving storm, and you will be asleep in my arms. Your mother, ROSE MARCY.

Florence was now in Fielding's arms.

The young men took good care of the tramp, and, when he was able, he went to town and made an affidavit of all he knew. The people accepted his story with delight, and many now affirmed that they had thought of that before. Attorney Holt, without a word, deeded the land back to Flor-

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ence, who gave him in return the old yellow check, which she and Fielding found safe in the iron box under the bluff.

Florence tore away the old Marcy house and built a summer cottage there; for she intended to be married, she said, in her mother's home. She drove around in her rich, white summer costumes, and certain people said that the other "White Lady," having been justified, would never be seen again. Except that on the wedding day there were two white ladies, Florence and Marian.

Useful Things to Know.

Don't forget that canned meats, which may keep perfectly for a year or two, after that time deteriorate and often become unwholesome. It is always wiser to purchase such food at the most reliable place.

Never put away food in tin plates. Fully one-half the cases of poison from the use of canned goods is because the article was left or put in the can after using. China, earthenware or glass is the only safe receptacle for food "left over."

Beeswax and salt will make rusty flatirons as clean and smooth as glass. Tie a lump of wax in a rag and keep it for that purpose. When the irons are hot rub them first with the wax rag, then scour with a paper or cloth sprinkled with salt.

Soft water is better than hard for boiling vegetables, as the hard water toughens them. When cooking, always keep the kettle boiling; then, if meat, vegetables or anything you may be boiling needs more water, you can add it without stopping the boiling process.

Thorough ventilation is necessary where milk is kept in cellars or it will become injured by mold or foul odors. This is more often the cause of poor summer butter than any other. The butter is tainted before it goes to the churn, and no possible after-care can make it good or keep it fit to eat until winter.

A good cement for mending china is made in the following manner: Make a very thick solution of gum arabic and warm water and stir in a sufficient quantity of plaster of Paris to make a thick paste; then with a small brush apply the paste very carefully to fractured edges of the china, pressing them tightly together, and leave the mended dish untouched for two or three days.

No medicine should ever be given in the dark. Always shake before opening the bottle. It is often important and always harmless. Medicines should be kept in a dry, cool and dark closet. Only a few should be kept on hand, each in small quantity, for, as a rule, they do not keep well. It is poor economy to buy drugs where they are the cheapest, as they are almost sure to be adulterated. Get them from a reliable apothecary.

Turpentine has almost as many uses in the house as borax. It is good for rheumatism, and, mixed with camphorated oil and rubbed on the chest, one of the best of remedies for bronchial colds. It is an excellent preventive against moths, although naptha is preferable, the odor leaving much sooner. It will drive away ants and roaches if sprinkled about the shelves and closets. A spoonful of it to a pail of warm water cleans paint excellently, and a little in the boiler on washing day whitens the clothes.

Humorous.

THE man who has confidence in himself is often taken in by just that kind of a game.—Truth.

IT generally makes a self-righteous man feel like kicking the first boy he sees to be called a hypocrite.—Ram's Horn.

A WOMAN'S RETORT: Mrs. Brady (proudly)—"Me Mary Ann has a pianny." Mrs. McNally (a rival)—"Och! Yez needn't t'ink yez can droive me frim th' neigbyhood wid her outlandish n'ises.

DOCTOR (to patient who has come two miles to the doctor's office in order to save the extra cost of a visiting fee): "Good gracious, man, you are not fit to be out of the house! Go home at once and I will call in a couple of hours and prescribe for you."—N. Y. Life.

HOW it gets in. Mrs. Bleeker—"Are the ordinary nursery stories told to Boston children?" Mrs. Emerson—"Only 'Jack and the Bean Stalk,' and that solely out of consideration for the bean."—Puck.

DEACON MEDDERS.—"Skipps, the cashier of the Onderdonk County Bank, ran away last night. They say he has been robbing the bank for more than a year." Mrs. Medders—"They might have known that he was living beyond his means. Why Josiah, his folks actually used to sit in their parlor every night!"

YOUNG FOLKS' COLUMN.

Before the Toy-Shop Window.

I knows it's mighty weak in me to cry
'N blubber like a baby, sir, but I
Kaint help them tears.
I'm old enough, I s'pose, to put away
Sech childish things; I've known the light o' day
Some sixty years.

It's this way, sir: 'Bout thirty years ago
I had a little baby home named Joe—
Named after me—
For Joe's mamma afore she came to die
Ast me to name him that ar way, and I
Just did, you see.

Small Joe—well, he was three weeks old that day,
When she—she—kind o' sighed 'n' passed away.
'N' me and Joe
Was left to help each other on—for me
To keep the little fellow goin'; he
To soothe my woe.

He did it, too, Joe did—he did a heap.
'Twas mighty comfortin' to watch him sleep,
'N' coo, and smile.
I seemed to see her smile when Joe looked glad,
'N' then I kind o' didn't feel so sad
A little while.

'N' then Joe went! I had to go to town,
'N' Joe while I was gone crept off—to drown—
Fell in a dam;
'N' down in town I'd bought a little toy
To bring it home, y' know, to give the boy—
A woolly lamb.

'N' when I got back home some feller said,
As kindly as he could, that Joe was dead—
My little Joe.
'N' then we put him by his mamma's side,
'N' with him was that woolly lamb that I'd
Brought home, y' know.

'N' now to-day's the first I've cried since then—
Cried like a baby in the sight o' men—
But 'taint no whim.
Why, in the winder o' that shop there sat
A little woolly lamb, sir, just like that
I got for him!

'N' for a minute my old heart felt glad.
I sorter thought to see the little lad
Still at my side.
'N' then remembrance came—that ne'er again
I'd see him smile 'n' hear his laugh 'n' then,
Why, then, I cried!

—John Kendrick Bangs
in the December Ladies Home Journal.

Herbert's Revenge.

"You'll be sorry for this some day!" said Herbert, angrily.

"Sorry nothing!" retorted Dwight Hardy. "And, if you don't want your head punched, you had better leave my sister alone. She doesn't need your help. Charlie and I can give her all the toboggan rides she wants. Can't we, Charley?"

"I guess we can," replied Dwight's younger brother; "and, anyhow, I don't believe May wants to ride with a fellow whose father has been in State prison."

The boys had arrayed themselves in bathing suits, and stood waiting for some of the more courageous girls of the Hilltop Sunday-school picnic party, who had promised to venture upon the water toboggan at the shore. Herbert had suggested to May Hardy's brothers that he take May on his toboggan if she were willing. Mr. Harding was a very wealthy man, and Dwight and Charley were more conscious of their father's and their importance than any boy should be. They therefore rather curtly declined Herbert's polite offer, although they were notoriously neglectful of their sister; and when Herbert showed his resentment at the slight, the talk became decidedly animated. Finally, when Herbert heard the words "State prison," he sprang forward to punish the boy who had dared to insult his father's good name. To Herbert's discomfiture, Mr. Thorp, the boy's Sunday-school teacher, appeared just then.

"The girl's are ready, Mr. Thorp began. "Why, boys, what's the matter? Fighting, Herbert?"

Herbert retired, abashed. He could not explain that, although his father had been in prison, his innocence had been fully established by the death-bed confession of the real criminal. He did not wish to say that his father had died in middle life, broken in spirit and fortune, nor that his mother and himself had removed to Hilltop hoping that the story of their misfortunes would not follow them. In spite of the hard luck which Herbert had faced in his 15 year's experience with the world, he was rarely unhappy. Perhaps the reason was that he knew what real troubles were, and trifles did not affect him; but the knowledge that his and his mother's secret had been found out was too much for his peace of mind. He cared even less on his own account than for his gentle mother, whose sorrows had already made her old, and who was at that moment sitting alone at home thinking only of her boy.

On the appearance of their teacher, all the children, except Herbert, ran to the toboggan slide, and were soon riding swiftly down the incline, and splashing merrily about in the water at its foot.

"Come on, Herbert," said one or two of the boys. "Don't mind those Hardy's. Nobody cares what they say."

But Herbert's pleasure was spoiled, and he refused to be comforted. He stood at the top of the slide in a very resentful mood, watching the fun as the bathers sped swiftly down and toiled up to the top of the incline again. Suddenly the desire for revenge shot through his mind, but how to accomplish his desire he could not decide. At length he decided to ride down the slide a few times, just to get his bearings and hit upon a plan for punishing the Hardys.

Even with nobody to share his toboggan, the ride was glorious, and Herbert climbed up to the starting-point with less bitterness of spirit than when he went down. He lost still more of it on the second trip, and after he had ridden half a dozen times, he was ready to admit that, after all, life without the Hardy's might be worth living even to a boy whose father had been imprisoned for another man's crime.

Suddenly, as he reached the top of the slide, and turned to place his toboggan in position to descend again, he heard a scream from May Hardy and shouts for help from her brothers. Herbert's opportunity for revenge had come. Should he take it?

The toboggan carrying the three Hardy's had sailed out into deeper water than usual, and May Hardy, who was already tired with swimming and climbing, became frightened and sank. As she went down she clutched wildly at Dwight, who struggled violently to free himself, and finally sank out of sight with his sister. Meanwhile Charlie Hardy was floundering widly about attempting to help, but unable to do so, and becoming more terror-stricken every second. Nobody was near, and the only boat in sight was two hundred feet away.

With a run and a spring the boy started down the incline at a speed which promised to take him within reach of the struggling children. But alas for the mistakes of human calculations! His toboggan buried its nose in water at the foot of the slide and sank, while Herbert went heels over head. He rose to the surface of the water almost immediately and struck out toward the three Hardys, propelling his toboggan. He reached Charley first, and pushing the toboggan toward the shrieking lad, commanded him to grab it and go ashore. Charlie obeyed, and ran swiftly for the boat. Herbert did not pause an instant, but seizing the Hardy's toboggan, swam to the spot where Dwight and May were sinking and reappearing, the girl almost fainting and the boy struggling desperately to keep both their heads above water.

"Here, Dwight!" said Herbert, as he reached them, "you get ashore with the help of the toboggan, and I can save your sister! Leave her to me, will you?"

Dwight grasped the toboggan and managed to shake himself free from his now unconscious sister, while Herbert seized her by the hair, and keeping her nose and mouth above the surface of the water, began to swim toward the shore. None of the children had been far beyond his depth, and Herbert was soon able to touch the bottom with his feet. By that time plenty of help was at hand, and May was carried quickly into a hotel near by and there revived.

"That was very bravely done, my boy," said Mr. Thorp to Herbert.

"It wasn't much," replied Herbert, who thought with shame of his plan of revenge. "Anybody could have done it if he hadn't been frightened. The water was hardly over their heads."

"That's just the point," said the teacher. "The ability to keep your head above water at times of danger is about as important as anything I know."

Herbert was confused by the praise far more than by the danger he had faced, and when he found words to protest that he had done nothing extraordinary, Mr. Thorp was walking toward the hotel.

But Herbert's triumph came when Dwight extended his hand in the presence of the other boys and said:

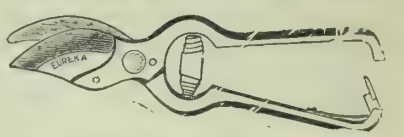
"Herbert, you're a brick, and I've been an awful cad. I'm ashamed for the way I acted, and I hope you and the other fellows won't lay it up against me."

"That's all right," said Herbert, after the awkward fashion of all boys, who hate scenes of "making up," "that's all right. You'd have done the same thing if you had been in my place. You were a little rattled in the water, that's all, and we won't say anything more about the—the other."

Nothing more was said about "the other," and none of Herbert's playmates, except the Hardys, have ever yet heard the reason why he and his mother came to Hilltop to live.—Harper's Young People.

PRUNING SHEARS.

EUREKA and DEFIANCE.



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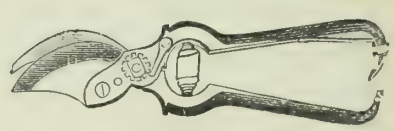

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HIGH GRADE WARRANTED.

FRESNO.

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STEEL CLOCK SPRING.
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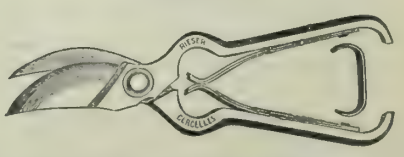

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PATRONS OF HUSBANDRY.

From Worthy Master Davis.

Doings of the National Grange.—Observations and Suggestions.—Work Done and to be Done.

BOSTON, Nov. 28th, 1892.

TO THE EDITOR:—The National Grange closed its 26th annual session at 11 o'clock P. M., Friday night, November 25, 1892, after ten days and (almost) nights of hard work. There was no lack of interest from the first to the last moment. All were intent on seeing the work of the session finished in such a way that the good of the Order would be best subserved. The debates on some of the reports (notably that of the worthy lecturer, and the minority report of the executive committee, submitted by Bros. Rhone and Charters) were long, exciting and very argumentative. These reports involved, not only the question of the farmers' social and financial condition, but also the question of a cheaper money to be furnished by the Government on real estate mortgages, and, of course, the debates were warm and aggressive. Nearly every voting member of the National Grange spoke, and the roll was called times almost without number. All efforts to change the *ritualistic* work failed, and but few changes were made in the digest. The fee of $5 for each *new* Grange organized, and of $2.50 for each old Grange reorganized, was continued for another year.

Headquarters at the World's Fair were ordered established and maintained, with a suitable patron in charge, to give information, to keep a roster for each State, etc., all to be in charge of the executive committee of the National Grange during the entire session; *provided*, the expense to the National Grange shall not exceed the sum of $1000, which sum was appropriated, with a *proviso* that any unexpended balance shall be returned to the treasury.

A national committee on Woman's Work was appointed as follows, viz., Sister J. J. Woodman, Paw Paw, Mich., chairman; Sister G. A. Bowen, Woodstock, Conn., and Sister E. W. Davis, Santa Rosa, Cal.

"The Temple to Agriculture" is still waiting for funds. Several plans were suggested, but no definite plan was adopted. The subject was again placed in charge of the executive committee. Can't some member of the Order in California devise a way by which an Order with so many members can raise the necessary funds for building a "National Home" for the grandest farmers' organization the world has ever known?

Bro. Leonard Rhone of Pa. was reelected a member of the executive committee. The place at which the next session will be held was left for the executive committee to determine. The question of lecture work in the several States was fully discussed by the executive committee, who determined that now is the time, in many States, to push the work of organization and of reorganization. The committee on "Dormant" also urged aggressive work in the same direction. An attempt to change the time for holding elections in subordinate Granges failed, so that the law, as now in force, is to be observed. In this connection, let me say that I hope all Granges in California will *elect* and *install* officers as early as possible, so that they may have the *new annual word*, and also that they may begin early in the year an aggressive campaign for the Grange. It is the desire of the master, if the executive committee of California State Grange concur, to make a most vigorous effort to replace the Grange in several counties where it is not now to be found. This can be successfully done if all our members will but put the shoulder to the wheel and by word and deed stand boldly for the Grange.

On our way west we thought to make a short stop at Boston ("The Hub") to see the crooked, narrow streets, the fine buildings, the magnificent show-windows, the overcrowded streetcars, the hurrying crowds of anxious people, Bunker Hill, the famous Boston Commons, Cambridge and its historic surroundings, the poet Longfellow's home, where, in days agone, he wrote Hiawatha, Evangeline, Miles Standish and the legion of sweet Lyrics, which, long ago, immortalized him. From Boston we go to New York, where we hope to see some of its many wonders; thence to the Quaker City; then to the nation's capital, about the time Congress convenes; then down to Richmond and across to St. Louis, from which latter city we go direct to California *via* A., T. & S. F. R. R.

The worthy master acknowledges, with thanks, invitations to visit State Granges, to-wit: Illinois, Indiana, Missouri, Kansas, Nebraska, Massachusetts, Vermont, New Hampshire, New Jersey and Delaware, which had to be declined, owing to the wintry weather. There have been many observations made during the trip. About them, something may be written during the new year, which is already knocking at the door. We have had a fine trip, but the most exacting work of any session of the National Grange held for many years. On this, all agree. Some days we had 13 hours of actual session, leaving but 11 hours for meals, rest and committee work. But we all survive. More anon.

E. W. D.

Against Coyote Bounty.

At a meeting of Merced Grange, P. of H., held Dec. 3, 1892, the following resolution was unanimously passed:

Resolved, That this Grange is opposed to the repeal of the bounty of $5 on coyote scalps, and respectfully requests the Legislative Committee of P. of H. to use all honorable means to prevent the repeal of said law.

L. H. APPLEGATE, Master. NETTIE BROUSE, Sec'y.

Notes.

Sacramento County Pomona Grange will meet Dec. 31st for election of officers; and on that evening Sacramento Grange will give a social, to which members of the Order are cordially invited.

Letter From Past Master Webster.

What the Grangers and Farmers of San Luis Obispo County are Talking About.

TO THE EDITOR:—In answer to your favor of the 22d inst., making inquiry relative to "what is going on and what is being talked about among Grangers in your district," I have to say that the term "Granger" is largely superseded in this section by Alliance advocates and People's party clubs.

For the last year Grange work south of San Jose has been fitful and halting to such an extent that it has been found impossible to maintain regular meetings in the interest of the Order anywhere, with the exception of San Antonio, San Lucas and Arroyo Grande. The cause of the decline of legitimate Grange work here is that "Old Hayseed" sowed a large stock of reform notions among the uninitiated last spring, and the result is a development out of all proportion to the yield of our wheat or early potato crops.

The derisive jeers of McKinley converts and tariff reformers are no longer heard in all the land. Political lightning has struck the former and the latter are beginning to realize that they have caught a white elephant that is likely to land them all in the gutter before the next general election, while the People's party advocates sit back and grin at the discomfiture of their opponents. Just now, for the first time in the history of the movement, it is quite respectable to belong to the new party organization. San Luis Obispo is the banner county of the State in the new movement as it is the only one that has elected any considerable part of the county ticket unaided by any other organization. The local results of the recent election are so encouraging to the new party promoters that there is already an active demand for further and more effective organization on substantially the same lines on which the recent contest was made.

Counter to the conception that appears to possess all Cleveland advocates, the farmers of this county do not believe that it was the tariff reform slogan of the Democrats which won their party the signal victory of November 8th, but that it was largely and chiefly due to vicious legislation and policies other than the McKinley tariff.

The conviction is growing continually deeper among the labor element of the nation that class legislation and court decisions favor the few as against the many, and that a poor man has no rights that wealthy individuals, corporations, trusts and syndicates are bound to respect. This conviction, which is certainly spreading among the masses of our people, may be considered dangerous, unrepublican and tending toward physical revolution; but who will say that these conceptions and tendencies are not justified by the conditions which surround us?

The general impression regarding the recent contest between the Democratic and Republican parties is that it was like unto a sick man bedridden and purple-hipped who turns from one sore side to the other with the hope of some relief from the waste and torments which beset him.

The fear is that the Democratic party will not recognize this fact, but rather be led by Mr. Cleveland in his raid on the McKinley bill as the source of all our trouble and embarassments. While conceding that a proper adjustment of the subjects on which tariff duties should be laid would afford some relief in certain directions, nevertheless, it would be as reasonable to suppose that a cancer could be removed by the application of a bread poultice as to suppose that our financial distress can be relieved, and the curse of the nation, in the form of great corporations, trusts and pooling transportation companies, can be regulated and controlled by removing the duty from imported wool, tin and cotton ties.

It was declared by the ancient Greeks that the gods first made mad those whom they would destroy.

Manifestly Cleveland and his more zealous followers have gone mad over the McKinley tariff, and if it were not for the consequent embarassments which are likely to overtake the country, the wage-workers of the nation could look complacently on the hollow show, consoled by the certainty of a civil revolution four years hence which will give the reins of government into their hands.

Conscious of this ultimate result, the farmers of the nation propose to make advances all along the line, strengthen every outpost, intrench their forces as they advance to a more comprehensive understanding of their duties and responsibilities to the Republic. To this end the largest and most liberal-minded men in the movement are to be entrusted with the leadership, control and direction of our periodicals and other means of information designed for the better understanding of all farmers as to the vital issues involved in this great controversy.

Farmers in this section have reached the conclusion that there is but little merit in a name. Call it Grange, Alliance or People's party, it matters not, so we reach the same conclusions and unity of action in their development. Purpose and resolution to meet every emergency and to stand together in all things pertaining to the prosperity and advancement of our calling is the drift of sentiment among the farmers of this county, so that the Grange, Alliance, People's party and every other organization among them will be used in the future as a means to a common end in view.

J. V. WEBSTER.

Anniversary Celebration at Sacramento.

SACRAMENTO, Dec. 4, 1892.

TO THE EDITOR:—The 3d of December dawned inauspiciously for the success of the anniversary celebration planned by Sacramento Grange No. 12, P. of H.; but despite the threatened storm, a goodly number of members and visitors from neighboring Granges were in attendance. No exercises were held in the forenoon, but after the banquet, the gavel fell and Worthy Master S. H. Jackman reviewed the history of the Order from its inception, pointing out the advancement made by, and the benefit accruing to farmers through the opportunities it had afforded.

W. H. V. Raymond followed with remarks on the advantage possessed by farmers over other classes of business-men for self-improvement; on the former dearth of social companionship for dwellers on the farm, and that the Grange had obviated this drawback to farm life, and commented favorably on the broad principle of equality of the sexes as taught by the Order.

E. Greer gave an outline of the work of the County World's Fair Committee, and that it contemplated taking the exhibit, which received the first premium at the State Fair, to the dress rehearsal at the Mechanics' Fair in San Francisco next month.

G. W. Hancock, who has recently returned from a trip to Mexico, gave a glowing account of the prospects for agricultural and mining enterprises in the land of the Montezumas.

Songs were rendered by the Grange choir, and vocal solos, piano and violin duets, and the "Ghost of Crooked Lane," excellently personated, added greatly to the day's pleasure; and thus does the Grange cement the fetters which bind in willing fealty its subjects.

E. GREER.

Committee on Woman's Work.

The State Grange Committee on Woman's work in the Grange is up to business, and fires the first gun since the annual session at San Jose in sending to each subordinate Grange committee the following:

To the Local Committee on Woman's Work.—DEAR SISTERS: Again the State Committee sends greeting to you who have been diligent, and, through you, to your faithful colaborers.

From reports received it is shown that through your efforts interest in the Grange has been stimulated; and we hope you will press onward, through the coming year with renewed courage.

In addition to the duties which have fallen to your care in the past, we desire to direct your attention especially to certain work which the State Committee deem it expedient to take up at this time.

GRANGE TEMPLE.

The Order in California, should, ere the close of another year, contribute at least twenty-five hundred dollars to the Grange Temple Fund. Other States are moving in this matter, and each individual member of every Grange in this State should feel a personal pride in assisting to raise the amount of money necessary to assure the erection of that building.

This Order has come to be one of the permanent organizations of our country; and, through it and its influence, agriculture is no longer the butt of idle jest and sneer, but is respected as a calling; and the members of its profession are taking high positions—not as men who spent their youth upon the farm, but as men who are practical farmers. Each Grange can and should give at least one entertainment during the year, the proceeds to be devoted to this purpose. Talk it up in the Grange; call upon every member to assist, remembering that it is not much we ask from each one, but that the result of combined effort will be a sum total gratifying, not only to us, but to you; and that we may all justly be joint owners in a Grange headquarters that will reflect credit upon the Patrons of Husbandry and the art of agriculture.

GRANGE ADVOCATE.

The PACIFIC RURAL PRESS is recognized as the official organ and Grange Advocate. It is a bright, clean journal, devoted to the diversified interests of the farm, and we hope you will do all you can to increase its field of usefulness. Give it your hearty support, and induce others to do so. Make it the means of communication between the Granges by securing a PRESS correspondent, whose duty it will be to furnish concise accounts of your Grange meetings, and items of general interest.

COMMUNITY PROPERTY.

The State Grange has again instructed its legislative committee to urge the legislature to so amend the Civil Code as "to give to the wife the same rights in the disposition of the community property, after the death of the husband, as are enjoyed by the husband after the death of the wife."

The object of the proposed amendment is to make the wife independent of wills or deeds, by giving her as absolute control of the community property in the event of the husband's death, as the husband now has upon the death of his wife.

The justice of the proposition is self-evident, and needs no defense. Why should the wife, when the summons comes, and the husband follows the silent messenger, be subjected to a routine of court proceedings, every step of which is attended with the payment of costs, and which necessitates the employment of an attorney with fee relatively as large as the property in course of probate? Why should not the property which would be solely his at her death, be as legally hers at his decease, without will or deed, or the intervention of a probate court?

It may be urged that women are unused to business, and the loss will be as great one way as the other; but it has been proven that, give women the opportunity, and they will rise equal to the responsibility.

It is said that the children's interest needs protection, but who will care for them better than the mother who bore them? For them she has been down into the valley of the shadow of death, even to the verge of the dark river; for them she has endured privation and self-denial; for them she has planned and economized—toiled early and late, with the husband of her choice, for the creation of a home and the education of the family.

Sisters, this subject may not concern you personally to-day, or ever; and yet to-morrow may bring you to a stern realization of the injustice of the present law. It comes every day to some toil-worn wife and mother; and, at a time when she needs to concentrate all her energies upon the conduct of her business she finds herself confronted with the onerous and excessive costs, which are oppressive and unjust. As a measure designed to educate women, give us your assistance. Circulate the accompanying petition for signatures among the members of your Grange and in your community; and return it to the Chairman of the State Committee, for the purpose of assisting the Legislative Committee in its efforts to secure the desired amendment, by giving evidence that their request is an appeal from the people of this State for such change in the law.

Fraternally,
HATTIE S. JONES, Chairman.

Sacramento, Cal., Nov., 1892.

The Secretary's Column.

By A. T. Dewey, Secretary State Grange of California.

FIFTH AND SIXTH DEGREE INITIATES.

The following are the names of Patrons who took the fifth degree at the State Grange in San Jose: D. M. Winans, Miss Mary Kelsey, C. D. Grover, Miss Matilda Smith, Mrs. S. L. Root, Geo. Hamilton, Miss Varah M. Roache, Glen G. Harter, Mrs. Laura Raap, Mrs. Harriet De Golia, Mrs. David Harrison, Mrs. Harriet Barrow, Mrs. Johanna Lachman, Mrs. Ella Nelson, Henry Grupe, G. W. Worthen, R. P. McGlincy, Miss Elizabeth Lawton, Mrs. D. M Winans, Mrs. Mary Kelsey, Mrs. C. D. Grover, F. D. Walton, Mrs. Nathaniel Root, Mrs. Lydia Daniels, Mrs. Bertie Bowman, Mrs. Esther Mould, Miss Bessie Alling, Geo. Klinger, Mrs. Mary W. Webb, Mrs. A. Brackett, Albert Nelson, Miss Myra Parish, D. Litchfield, Mrs. Ada McGlincy, Hattie B. Wells, Mrs. Ellen Smith. Total No. 36.

The following received the Sixth Degree: W. C. Kingsbury, Mrs. W. C. Kingsbury, D. M. Winans, Mrs. D. M. Winans, Mrs. Mary Kelsey, Miss Mary Kelsey, C. D. Grover, Mrs. C. D. Grover, Mrs. Matilda Smith, F. D. Walton, P. L. Bunce, Miss Varah M. Roache, Geo. Hamilton, Mrs. Lydia Daniels, Mrs. Berite Bowman, Glen G. Harter, Mrs. Esther Mould, H. C. Raap, Mrs. Laura Raap, Miss Bessie Alling, Geo. Klirger, O. N. Caldwell, Mrs. David Harrison, Mrs. W. Webb, Mrs. Harriet Barrow, Mrs. Jennie Starr, Mrs. A. Brackett, Mrs. Johanna Lachman, Mrs. Albert Nelson, Mrs. Ella Nelson, Miss Myra Parish, Herman Sturcke, Henry Grupe, W. A. Overhiser, Hattie B. Wells, R. P. McGlincy, G. W. Worthen, Mrs. Ellen Smith, Mrs. Mary Pinkerton. Total number, 40.

If errors or omissions have occurred in the above list please inform this office at once. The Sixth Degree names were duly forwarded to the Secretary of the National Grange, and we now learn through Worthy Master Davis that certificates have been issued and are now in transit to this office. Brother Davis expects to reach home by the 20th of December, when the certificates will be duly signed, sealed and forwarded. They will be addressed to the secretary when there is more than one to a subordinate Grange.

STATE GRANGE FINANCIAL STATEMENT. Receipts during November, of general fund, $11.75; disbursements, $85; balance on hand and in treasury, $723.94. Receipts of lecturers' fund, $4.10; no disbursements; balance, $1873.73. Total balance in both funds, $2597.67.

TWO ROCK GRANGE has a class of nine applicants for initiation and is reported in a flourishing condition by Secretary Gaston.

THE STATE GRANGE REPORT for 1892 will be issued soon; also a new edition of the constitution and by-laws, including any changes that may have been made at the session of the National Grange just closed.

ELECTION REPORT.

[Secretaries are requested to send us as early reports as possible for publication under this head.]

TWO ROCK, DEC. 1.—John R. Denman, M.; W. D. Houx, O.; A. P. Martin, L.; Chas. Hunt, S.; Walter Church, A. S.; S. Q. Barlow, C.; Geo. W. Gaston, Sec.; Henry Schwobeda, G. K.; Mrs. A. Linebaugh, Ceres; Sisters Mrs. A. P. Martin, P.; Mrs. M. Mitchell, F.; Mrs. R. Andrews, L. A. S. Installation Jan. 5th. Reported by Geo. W. Gaston, Sec'y.

MERCED, DEC. 3.—A. Bickford, M.; J. A. Perry, O; E. L. Spinks, L.; Miss Eliza Atwater, S.; H. C. Healy, A. S.; Mrs. J. T. Lander, C.; M. D. Atwater, T.; Miss L. Archibald, Sec.; Miss Mattie Perry, G. K.; Mrs. A. J. Morley, Ceres; Miss Belle Clark, P.; Miss Addie Peck, F.; Mrs. L. J. Brouse, L. A. S.; L. H. Applegate, Trustee. Date of installation, Jan. 7, 1893. Reported by Nettie Brouse, Sec.

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The members of the Kern County Land Company have a national reputation for wealth, business and financial ability. These facts set the matter of reliability at rest. The company's capital stock is $10,000,000.

They have 400,000 acres of arable, irrigable lands upon which the sun shines almost constantly; and their enormous irrigation system renders them independent of the annual rainfall.

A clear title; rotation, variety and certainty of crops; easy terms; availability to persons in moderate circumstances; ground ready for the plow—no stones nor thistles; good society; schools; churches, etc., are a few notable attractions of this region of country.

Kern is the largest county in the San Joaquin Valley. It has the finest climate for curing and drying fruits, etc.

The 400,000-acre territory of the Kern County Land Company is the pick of the county.

Its area is 5,184,000 acres.

Has the largest irrigation system in America.

The home of the peach, French prune, pear and raisin grape.

Planting and harvesting can be carried on every month in the year.

No rocks, hills or stumps on the land.

A failure of crops is unknown on irrigated lands.

Kern county fruits take the first prize at the State Fair.

Land can be made to pay for itself in less than three years.

Grows more alfalfa than any other county in California.

The advantages of good soil and plenty of sun, which occur in the Kern Valley, would have been of little avail but for the third and all-important one of an abundance of water from never-failing sources.

Through 300 miles of main canals, and 1,100 miles of laterals, the great Kern river furnishes enough moisture to slake the thirst of the 400,000 acres already referred to.

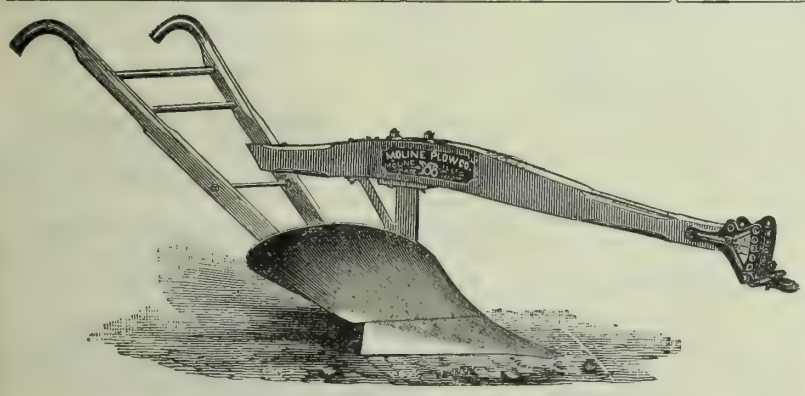
Drought is out of the question.

The system has been constructed in the most careful and scientific manner. Some of the canals are 125 feet wide and six feet deep.

FOR FURTHER PARTICULARS ADDRESS

KERN COUNTY LAND COMPANY.

S. W. FERGUSSON,
Bakersfield, - - - California.



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THE ORIGINAL AND GENUINE

MOLINE PLOWS.

Lightest in Weight and Draft; Finest in Finish; made of the Best Material; Most Durable; Easiest Handled; Scour in All Kinds of Soil.

GARDEN AND VINEYARD PLOWS,
TURF AND STUBBLE PLOWS,
HIGH AND LOW LANDSIDE PLOWS,
SCOTCH CLIPPER PLOWS,
ADJUSTABLE BEAM PLOWS,
FLYING DUTCHMAN SULKY PLOWS,
FLYING DUTCHMAN RIDING AND WALKING GANG PLOWS,
ALL EQUIPPED WITH MODERN IMPROVEMENTS.

SOUTH BEND CHILLED PLOWS.

OLD, RELIABLE AND WELL KNOWN.

The name SOUTH BEND, applied to Plows, is a household word among the farming community. SOUTH BEND PLOWS have been used with unvarying success for 20 years, and with the assistance of appreciative friends among the farmers we have built up a large trade.

For two-horse Plows our Nos. 3a, 4a and 10a are unapproachable. They were never known to disappoint a farmer.

HARROWS: We have all sizes of Tubular Steel and Wood Bar Lever HARROWS, Dakota Harrows, Scotch Harrows, Clark's Cutaway Disk Harrows, etc.

WRITE FOR CATALOGUE AND PRICES. MENTION THIS PAPER.

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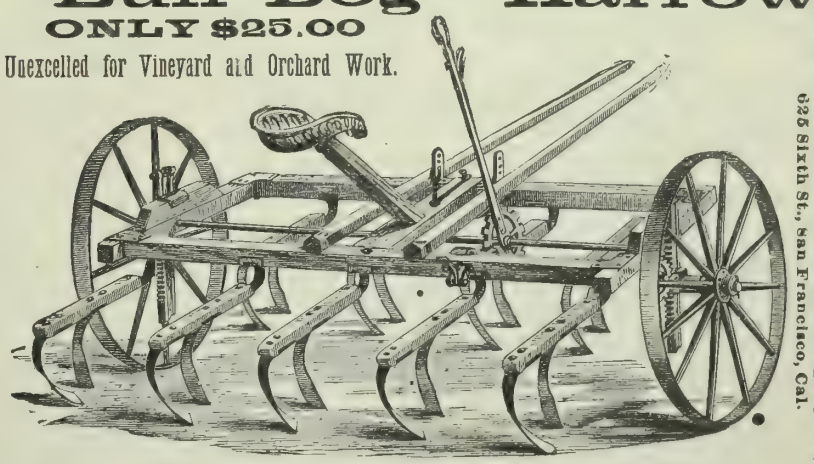
"Bull Dog" Harrows.

ONLY $25.00

Unexcelled for Vineyard and Orchard Work.



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525 Sixth St., San Francisco, Cal.

NO. 3 "BULL DOG" 6-FOOT RIDING HARROW—$25.00

Instead of a single tooth, drawing straight through the ground, the teeth are attached in pairs (which have a spread of seven inches) to a short beam. Every tooth has a quarter turn (to the right or left respectively), thus presenting a cutting edge to the ground, and giving to each the position and appearance of a moldboard of a plow, or the shovel to a cultivator. This form of tooth, together with the relative positions assumed by the teeth to each other, gives to them the power of cutting and pulverizing tough soils, and hard, baked ground, which is possessed by no other form of tooth yet invented. By this peculiar disposition of the teeth, they have the advantage also, that one acts as a brace or landside to the other, and so prevents their clogging, which is a serious fault existing in all spring tooth harrows whose teeth are made of one long, continuous spring. In the "BULL DOG" HARROWS the short beam which holds each pair of twisted teeth is attached by a stiff spring to the main framework of the tool, Thus these implements have the combined elasticity which exists in the teeth themselves, and in the spring which attaches the short beam to the cultivator frame. Hence the harrow retains all the vibration necessary for the successful working and cleaning of the machine, whilst it is also stiff enough to be held down to its work in the most obstinate soils without difficulty.

SHAPE OF TEETH.—As the teeth present to the soil a shear or cutting edge, they are enabled to do the most thorough work in hard ground, and, in fact, the peculiar construction all through of the "Bull Dog" Harrows adapts them for successful working in soils where no other tools of the kind can be used.

The Stockton Reversible Gang Plow

Is the BEST in the Market for all alluvial soils and is also the Cheapest.

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Our various shops are well equipped and we do all kinds of jobbing in Planing and Woodworking, Blacksmithing, Foundry and Machine Work.

A leading item of our numerous manufactures is the Celebrated Harvester, the "HARVEST PRINCE." Thoroughly tested this season and proven without a peer in its line. Two first prizes at the fairs of 1892 (wherever exhibited). We also make the Stockton Chief Header, which is not surpassed by any.

MATTESON & WILLIAMSON MFG. CO.,
370 MAIN STREET, STOCKTON.

DEWEY & CO. {220 MARKET ST., S. F. / Elevator, 12 Front.} PATENT AGENTS.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

TREE-PLANTING. — Livermore *Herald:* The vines on the Chapen property, formerly the Howard Black place, have all been dug up and trees will be planted in their place. There are some 60 acres. J. D. Smith has the contract for planting the place to trees. About half will be planted to almonds and the other half to apricots.

Butte.

OLIVES AT PARADISE.—Oroville *Register:* The success attending olive culture on the hills and plateaus of Butte is attracting much attention in the county. It is but four years since the first olive tree was planted at Paradise, elevation 2000 feet, and now Mrs. Jenkins, Dr. W. E. Mack, John Hedge and Rev. Mr. Wallace have fine and thrifty plantations, the smallest being 600 and the largest 4000 trees. The trees were quite small when set out, being not more than 20 inches high, yet they now stand 8 or 10 feet in height and have large and handsome tops. This year several of the trees on Mrs. Jenkins' land had berries and the fruit showed good size and early ripening. Mr. Hedge has been exceedingly successful and his trees show the finest growth of any at Paradise, yet he informs us that he has irrigated the trees but twice this season. Olive-growing will yet assume gigantic proportions in Butte, for we already have 75,000 trees and a large additional number will be set out this winter.

IRRIGATED FRUIT.—Oroville *Register*: Robert Williamson, of the firm of W. R. Strong & Co. of Sacramento, was in Oroville on Saturday, and in reply to a question said that his firm would this winter set out 20 acres of fruit on its land below Oroville, which would make 420 in the orchard.

VALUABLE FRUIT ORCHARD.—Biggs *Argus*: The great crop of almonds on 325 acres of trees of Hatch & Rock this year produced about 66 tons of fruit, which will bring the company over $10,000. Alexander Hammon offered the Rio Bonito Colony Company $175 an acre for 40 acres in orchard on the lower part of the tract last week. Twenty acres of peaches on Rio Bonito, the trees four years old, brought the owners this year $2700, or $136 an acre.

ANOTHER COLONY OF EASTERN ORCHARDISTS.—Biggs *Argus:* Col. H. B. Scott, of Burlington, Iowa, late purchaser of 650 acres of the R. A. Moore ranch, has employed County Surveyor McCoy to subdivide the same into 10 and 20-acre lots for colonization purposes. Avenues are to be laid out throughout the entire tract, so that every lot will have an opening on one of the avenues. In this, Colonel Scott is doing what every large land-holder should do. The rich alluvial soil in the above tract, and every foot is first class, is the most productive of California lands and every ten-acre tract is ample to make a home of plenty for a good sized family. The land will raise to a high degree of perfection all varieties of fruit, berries and vegetables.

Contra Costa.

DUCKS GALORE.—Brentwood *Herald*: Ducks by the thousands visit the grain fields at night, coming out after dark and leaving at peep of day.

Fresno.

W. A. COWAN, of East avenue, Fresno, has been awarded the first premium by the World's Fair Commission Committee for the finest 50 pound cluster of raisins. Jorgen Hanson got second prize of $10, the first being $25.

FRESNO *Republican*: Mr. Zetz made a shipment of oranges to San Francisco the other day of seedlings from John Burn's orchard at Orange Dale, in this county, and he has received a letter from his commission merchant announcing that they were the first shipment of this season's crop received in San Francisco from any part of California. Mr. Berry has somewhere in the vicinity of 7000 trees in his orchard near the Kings river. This is the first season of bearing, the trees having been set out four years ago. There are 13 trees in his grove 17 years old, and it was their prolific bearing and general thriftiness that induced Mr. Berry to go to the great expense of setting out an orange grove. These old trees are so full of fruit that they are propped to prevent the branches from breaking.

Humboldt.

NEW CREAMERY.—Arcata *Journal and Herald*: The new creamery and cheese factory which is to be built on Eel River island will be one of the largest and finest institutions of the kind in the United States. The cold-storage process will be used and the butter will be packed in hardwood tubs and shipped to Eastern markets. The capital stock of the company has been increased to $30,000.

LARGE ACREAGE TO BERRIES.—Arcata *Journal and Herald*: Nearly 100 acres in this section will be set out to berries and small fruit. The cannery is the cause of it.

Los Angeles.

ANTHRAX REPORTED.—L. A. *Express:* Dr. W. E. D. Morrison this morning reported to the supervisors that anthrax had appeared in cattle on a ranch on the Verdugo owned by a man named Nelson. The supervisors directed him to quarantine the place and take all necessary measures to prevent the disease from spreading. The doctor stated that the disease had been developed on the ranch.

CITRUS FRUIT IN CAHUENGA VALLEY.—Cor. L. A. *Express*: The orange trees, in the absence of irrigation, show need of water more than ever before; but where irrigated, the fruit is nearly full size and promises well. The lemon tree needs less water than the orange, and an excellent crop is now being gathered. The age at which citrus trees begin to bear in this valley is quite phenomenal. In a couple of years after planting, they yield a good paying crop, and after that, abundantly. This is owing to absence of frost and of too great heat. Frost, in most other places, cuts the young trees, back and too great heat interferes with the growing fruit.

ORANGES FROM POMONA. — *Progress*: A few boxes of oranges have been shipped from Pomona, and $3.25 a box paid to the grower. There never was a better lot of olives pickled for market than those put up in Pomona this season.

ORANGE AND LEMON NOTES.—Pomona *Progress*: The Pomona orange crop is ripening very fast these mild, clear days, and at this rate will be ready for market a few weeks earlier than usual. Some of the fruit dealers expect to have a small quantity of the oranges ready for shipment in about four weeks, but there will be no carload lots sent from here before February anyhow, and perhaps not until March. We are informed by S. P. Judson that there are 30 lemon-trees (eight years old) on his place near Duarte that have yielded an average of four boxes of fruit to the tree since last January. He cured the lemons with care and kept them in a cellar until August and September, when the crop was eagerly sought for at prices ranging from $4.75 to $7 a box. His total receipts from the crop were $742, or an average of $24.73 from each tree. But think of $742 from less than half an acre of fruit! Think of $24 annually in cash for the product of a tree eight years after it has been set out at a cost of about $2 for the tree and the labor upon it! Commissioner John Scott tells us that he knows of several large lemon trees in the San Gabriel valley that have borne fruit which sold, when cured, at the rate of $30 and $36 a tree. G. W. Garcelon of Riverside says that since he learned how to get his lemons ready for market, he has made as high as $1800 an acre from his product.

AN IRRIGATION PROJECT.—L. A. *Express*: Mr. Spillman, an experienced developer of water, has purchased 100 acres of land at Verdugo, where engineers have thoroughly examined and report that water can be developed there in very large quantities by excavation. It is proposed to conduct this water supply by a sinuous course through the hills north of the city, to the fertile lands of the Cahuenga valley, especially about Hollywood. Preliminary surveys have already been made for the irrigating ditch and it is expected to deliver water sufficient for the irrigation of 4000 acres of land. It is understood Mr. Spillman is backed by the State Loan and Trust Company and this gives assurance of ample facilities for pushing the enterprise to early completion.

San Diego.

RICH SOUTHERN SOIL.—Perris *New Era*: As an evidence of the fecundity of Perris soil, A. J. Timmons' fruit orchard, north of Perris, stands a silent but incontrovertible witness. What a little more than a year ago was as barren as a barn-floor, is to-day a paradise of beauty. Mr. Timmons put out at that time about 800 prune trees, none of which have died, and they are now progressing finely. Grapevines fill the space between the trees, and in one corner of the field is a large alfalfa patch, from which a number of crops have been cut.

San Joaquin.

ARTESIAN WELL.—Lodi *Sentinel:* There is an artesian well on Dr. F. R. Clark's farm in the Sargent tract seven miles west of Lodi. The doctor is farming a large piece of land there, and consequently had to keep a large number of horses. The stock could not be prevailed upon to drink surface water, and considerable trouble was experienced in hauling water several miles. It was finally decided to bore a well deep enough to get good water. The borers sunk 290 feet, using a two-inch pipe for casing. At this depth they experienced some difficulty in the work, and, thinking they had failed to find good water, gave up the project in disgust and left. The next morning the foreman of the place was surprised to find water running by the house. Upon investigation he found the water came from the well and was flowing from the pipe in quite a stream. When the reporter visited the well, a pump had been fitted on and a trough had been pumped full of water, which the stock drank readily. The foreman removed the pump, and the water poured forth in quite a stream. Gas in a steady flow came from the well so rapidly that it would ignite as it bubbled up through the water, which had a decided taste of salt and sulphur. The fact that the flow was struck at so small a depth would tend to prove the likelihood of a much greater flow if a larger and deeper well were sunk.

DISEASED CATTLE.—Madera *Mercury:* J. M. Gaston, a farmer living not far from Raymond, was in Madera Wednesday. Mr. Gaston brings the information that the cattle in his neighborhood are affected with some kind of disease that in most instances is fatal. During last week he says at least 20 head of fine milch cows have died from the effect of the strange malady. Mr. Gaston is of the opinion that the disease which attacked the cattle on the Hazelton ranch near Sanger is about the same as that which is being so fatal with stock in his neighborhood.

DEXTER PRINCE COLTS IN DEMAND.— Lodi *Enterprise*; Dan (plug-hat) McCarthy, the purchaser of the celebrated stallion Dexter Prince, formerly owned by L. M. Morse, was in Lodi the fore part of the week. He came here to look up some of his stallion's progeny, and purchased from Senator Langford a promising four-year-old Dexter Prince colt, "Senator L," dam by Bays Water, with a record of 2:29, paying therefor $3000. He sold to the Senator a 16-month's-old Dexter Prince colt out of a Nutwood mare, paying $5000 for the youngster.

Santa Barbara.

A BIG BEAN RANCH.—Cor. Redwood *Times-Gazette:* A great and staple crop is beans; this is, in fact, the ideal bean country. One of the landmarks of the adjoining county is a bean ranch, the property of Mr. D. W. Thompson, familiarly known as Dixie Thompson. In one field, as level as a floor, almost, was 1300 acres, and ten teams of six-horse plows were preparing it for the next crop. The farm contains 2600 acres, and this year he had 100 carloads, 30,000 sacks of lima beans. He has his own steam thresher, his own sidetrack, immense barns and warehouses, and uses about 150 horses to put in and harvest his crop. Mr. Thompson is one of the genial men one sometimes meets and regrets to leave. He is worth much to his community.

Santa Cruz.

SUGAR BEET PULP AS CATTLE FEED.—Watsonville *Rustler*: The pulp from the Watsonville beet-sugar factory is being used with successful results as a feed for cattle. Pulp that was siloed 13 months ago is now being fed to cattle on the Moro Cojo ranch, and the cattle will leave any kind of feed to take the siloed pulp. As the pulp is uncovered in the silo, it is found to be quite firm and has to be cut with a sharp shovel. It is fresh and firm, and is certainly a taking and fattening feed for cattle. The silo trenches used at the ranch are planked on the sides and bottom, with a drainage-box beneath, and when the trenches are filled they are covered with straw.

Sonoma.

WINE NOTE. — Santa Rosa *Farmer:* Geo. Dohn, our well-known winemaker, has made this season about 70,000 gallons of wine, 30,000 gallons of which have already been sold and shipped to San Francisco dealers.

Tulare.

IRRIGATING STONE FRUITS.—C. J. Berry, in Visalia *Times:* While our particular district of Visalia is, in most places, peculiarly adapted to the raising of stone fruits without any irrigation, their are many localities in our county where irrigation is required. My observations are that very few individuals engaged in fruit-growing in such localities use water in the right way. They use it at all times and under all conditions of their trees, never taking into consideration what those conditions are. One of the proper times to irrigate trees or vines is early in the spring before the sap starts to flow, but after that begins with your trees or vines do not use any more water until the sleep season comes on in midsummer. By the "sleep season" I mean that part of our summer from about the last of July to the middle of August. If you will use the water then, you will benefit your orchards and vineyards. If you use water while your trees and vines are growing vigorously, you will surely injure them. Now, at that season of the year the weather is very hot and the surface of the ground becomes heated so that in pouring water on it the water becomes very warm, and if irrigation is pursued in the daytime you will injure your trees. It is therefore imperative that you irrigate during that time at night for the best and safest results. After you have picked your crop of fruit is the next proper time to irrigate. The last irrigation of the season helps the trees to develop their fruit buds for the next year's product. With vines, it is unnecessary to use water on them in the early fall. Our vines are so very vigorous that they don't often need it, but if your ground is very dry and they do need irrigation, that is the proper time to do it, as well as to our deciduous trees. If these suggestions are accepted and adhered to by those growing fruits and grapes in our county, I will assure them that they will be very much benefited.

ALMONDS COMING INTO FAVOR.—Visalia *Register*: A few years ago it was almost given up that almonds could not be grown to advantage in Tulare county, but recently people here and there are meeting with better success. On the Chapin fruit-farm, just out of town to the north and east, there are about a thousand trees which yielded their first crop this season. They are only four years old, and it is not supposed that almonds will yield a paying crop until after they are five years old, and yet 3100 pounds of hulled almonds were gathered this year. The price (12 cents per pound at depot) was satisfactory, though the cost of gathering from trees thinly loaded was about as expensive as from those loaded more heavily. The cost of hulling was two cents per pound, bringing the whole cost of marketing up to about five cents, leaving seven cents per pound to go to the credit of the trees. In regard to making a business of growing almonds, E. D. Lake, manager of the Chapin fruit-farm, advises that growers should plant the three varieties, IXL, Nonpareil and Ne Plus Ultra, in alternate rows, so that the pollen of the kinds may mix as freely as possible, thus fructifying what would otherwise be sterile blossoms. This has been the difficulty with most growers heretofore, no doubt. While almonds cannot be regarded as a dead-sure crop, as late frosts may catch them, they are sure enough to warrant every grower having a few acres, or at least a row of them around his fence.

ARIZONA.

EXPERIMENTING IN COTTON-GROWING.—Yuma *Times:* Reference was made a couple of weeks ago to the cotton plants on the Sumner place near Yuma, which grew from seed planted five years ago, and have never died. The General brought in last Monday samples of cotton from the bud to the ripened fruit, so to speak. There were some buds not opened, some just blooming, others in full bloom, bolls not open, bolls open, and, lastly, bolls of ripened cotton ready to pick, all from the same plant. People who have seen Southern cotton say the cotton from the Sumner place is equal to any grown in the South. Cotton may never be a profitable thing to raise here, owing to lack of cheap labor; but this ought to be offset by not having to replant every year. The third crop of grapes is also ripening on the Sumner place.

ALMONDS.—Phœnix *Herald:* We learn that the almond-trees in all parts of our valley are in a very flourishing condition, and that quite a number of new varieties will be set out the coming season.

NEVADA.

WASHOE CHEESE.—Reno *Gazette:* Theodore Winters has, during the last year, manufactured 60 tons of cheese at his ranch in Washoe valley. Formerly he has suspended operations in that line during the winter months, but he has now made arrangements by which he will continue the business all the year round. The sale of the product of his creamery has been confined exclusively to the counties in the western part of the State, as the exorbitant charges and discrimination of the Central Pacific have precluded shipment east or west on that line. With a competing railroad he would increase the manufacture to twice or three times its present limit.

SALE OF A SHEEP.—Reno *Gazette:* Yesterday D. C. Wheeler received by express a Persian buck from C. P. Bailey of San Jose, who is distributing for the Secretary of the Interior a number among Pacific coast sheepraisers for experimental purposes. The sheep has dark brown wool. It is chiefly remarkable for the size and shape of its caudle appendage, which, instead of being like the stumpy tail of other sheep, is about six inches long and nearly a foot wide, forming an oddly-shaped apron for its hindquarters.

OREGON.

LOW PRICES FOR CATTLE.—Pendleton *Tribune:* The price of cattle in Umatilla county, and, in fact, throughout eastern Oregon, is outrageously low, and some action ought to be taken by the stockmen, not only of this section, but of the eastern Oregon ranges, to protect themselves from the beef combine that has been formed throughout the country. Beef cattle ought to sell for three cents to-day, yet it is reported that good beef has been recently selling for $1.75.

WASHINGTON.

CROPS IN THE PALOUSE.—Spokane *Chronicle:* The grain crop of the Palouse country is still being worked off in immense quantities, and bids fair to aggregate 10,000,000 bushels of wheat and nearly 800,000 bushels of barley. The bountiful yield of the past two seasons has placed the farmers in such a condition, financially, that they have not been obliged to dispose of their grain at the low prices now ruling; and to this fact may be attributed the absence of anything of the nature of a wheat blockade.

A PUGET SOUND ranch has 100,000 chickens.

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IN NO WAY MECHANICAL,

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Just the Harness for an Elegant Turnout.

They sell here for $25.00, and harness not as good is often sold for $35.00 in retail shops. If harness is not as represented, money will be refunded.

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CAPITAL STOCK.....$10,000 PAID UP.
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W. E. WARD.....President
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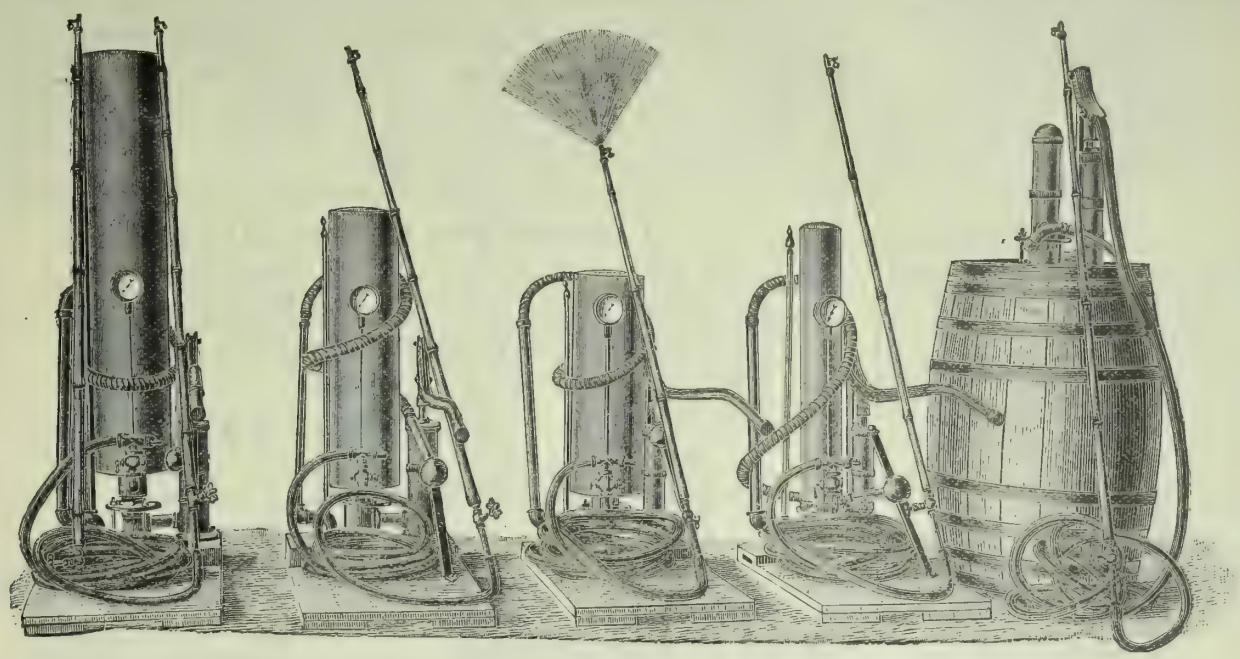
Pomona, - Los Angeles Co., Cal.

OLIVE TREES FOR SALE.

Eleven years experience has taught me how to **PROPERLY** root the Olive. **No** artificial heat used. Address

W. ALSTON-HAYNE, Jr.,
Montecito P. O., Santa Barbara Co., Cal.



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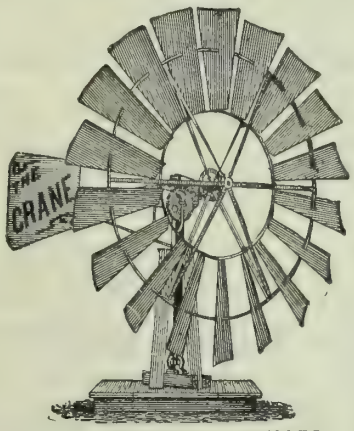
"The Crane"



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In the manufacture of this Pipe, we use only a **high grade** o annealed Charcoal Iron of great tensile strength.

The weight or thickness of metal used, is graded according to service required, and pressure to which the Pipe will be subjected.

FOR ALL UNDERGROUND PURPOSES, we immerse the Pipe in a bath containing a special mixture of **ASPHALTUM, PITCH and PETROLEUM, at a Temperature of 300° Farenheit.** It thus receives a thorough coating, both inside and outside, rendering it impervious to the alkalies of the earth, rust, etc., and is practically indestructible.

CORRUGATED IRON,

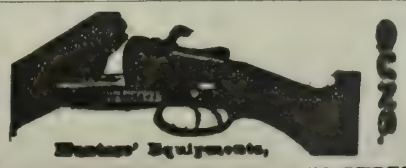
Black, Painted and Galvanized, for Roof and Sides of

HAY BARNS, DRY HOUSES, STABLES, ETC.

W. W. MONTAGUE & CO.

SAN FRANCISCO—SAN JOSE—LOS ANGELES.

Send for Price Lists OF GUNS And all Articles used by Hunters and Anglers.



GUNS SENT ON TRIAL.

OLD GUNS TAKEN IN EXCHANGE.

GEO. W. SHREVE, 525 KEARNY STREET, SAN FRANCISCO.

Domestic Economy.

Squash Muffins.

PESCADERO, Nov. 6, 1892.

TO THE EDITOR:—This tea-cake tastes so nicely I'm anxious the RURAL should have it:

SQUASH MUFFINS.—One and a half pints nice boiled squash, three tablespoonfuls sweet milk or cream, three teaspoonfuls lard, two heaping teaspoonfuls sugar, one cupful salted yeast and a little flour. Stir and let it rise till light, then add one-half teaspoonful soda and enough flour to thicken it, stirring it down as it rises. About two hours before supper knead, and cut it out as for biscuit; let it rise till it be light and bake in small tins—"good as gold!" K. S. B.

OX-TAIL SOUP.—Two medium-sized ox-tails, two carrots, an onion, a stalk of celery, a few leaves of parsley and a slice of salt pork. Cut the skinned ox-tails apart at the joints, slice the vegetables and chop up the pork. Place the pork in a stew pan, and when hot add the onions, brown them a little before adding the ox-tails; allow all to fry a little while, then remove the whole to a soup kettle and add four or five quarts of cold water. When it comes to a boil, take off the scum as it rises, set it back where it will just simmer for three or four hours; then add the vegetables and a few whole cloves. Boil enough longer to cook the vegetables very soft. Then skim out the joints and strain through a soup sieve or colander. Return it to the fire and bring to a boil again, when it is ready to serve. The bone joints can be served with the soup if preferred, and most people like to pick off and eat any tender bits of meat remaining on them.

SAUSAGE OMELET.—Take six eggs, one cup of milk, one small teaspoonful of cornstarch, one cup of cold, cooked sausage, chopped very fine. Beat the whites and yolk of the eggs separately, until each is as light as it can be made. Stir together until they are tolerably well mingled, add the milk in which the cornstarch has been dissolved, and pour the whole into an omelet pan, containing a tablespoonful of sweet lard boiling hot. It must not have been allowed to brown. Tip the pan from side to side that the mixture may not burn, and with a knife loosen the edges when they show signs of sticking. When it begins to grow firm in the middle, sprinkle over it the chopped sausage, cook a moment longer, double one-half of the omelet on the other with the knife, and slip from the pan to a hot dish. Serve at once.

COFFEE CAKE.—For this cake take one-half cupful of butter, one-half cupful of brown sugar, one-half cupful of molasses, two cupfuls of flour, one cupful of strong coffee, one egg, one cupful of raisins, two teaspoonfuls of cinnamon, one of allspice, a small teaspoonful of cloves and one level teaspoonful of soda—this last to be put into the molasses. Cream the butter and sugar together, stir in the molasses and spices, then the egg well beaten, the coffee, and lastly the flour.

Just What Is Wanted.

Business is alive to a great coming event, and preparations of all sorts for the Columbian Exposition of 1893 are active and earnest. Just what is wanted of a unique kind has happily already made its appearance, and we have before us "THE OFFICIAL PORTFOLIO OF THE WORLD'S COLUMBIAN EXPOSITION," illustrated from Water Color Drawings.

This Portfolio is a rare and beautiful exponent of the main architectural features of the Great Exposition at Chicago in 1893. The fourteen magnificent structures are faithfully exhibited, while the Bird's-eye View gives a realistic glance at the lay of the grounds, with their principal buildings, lagoons, etc. The illustrations are exact reproductions, in water-color effects, of the original drawings, made especially for this purpose from the official plans, by America's best known water-color artist, Charles Graham.

A copy of this exceptionally fine production will be be sent to any address upon receipt of 10 cents in postage stamps, by the Charles A, Vogeler Co., Baltimore, Md.

Carbolineum Avenarius.

This very excellent wood preservative, to which we have already several times directed the attention of our readers, is giving great satisfaction to those who have given it a trial, and, like other good things which stand the test of practical application, it is finding a rapidly increasing market. See advertisement on page 499.

ARRESTING BY SUBSTITUTE. First detective—"We can't find who murdered the old man, but I'll tell you what we can do." Second detective—"What?" First detective—"We can arrest all his daughters and clap them in jail!"—Judge.

The Steamers of the World.

The new list of the merchant marine compiled by the Bureau Veritas, which is now in press, gives some interesting statistics concerning the great ocean steamship companies of the world.

Some people will be surprised to learn that the transatlantic lines are not the leading ones in agregate tonnage or number of vessels. The British India of Glasgow and the British India Steam Navigation Company and the British India Associated Steamers—all one concern—head the list with 103 steamships. Their aggregate measurement is 239,635 tons.

Next stands the Peninsular and Oriental Steamship Company, with 36 steamships, representing 216,887 tons. Next in order comes the Compagnie des Messageries Maritimes, with 61 vessels, whose aggregate tonnage is 202,522. The fourth on the list is the Norddeutscher Lloyd of Bremen, some of whose vessels ply to this port. This company has 66 steamers, measuring in all 197,169 tons.

Other important lines are the Navigazione Generale Italiana, 106 steamers, 170,755 tons; the Compagnie Generale Transatlantique, 66 steamers, 167,487 tons; the Hamburg-American Packet Company, 56 steamers, 165,442 tons; the Wilson Line, 86 steamers, 158,089 tons; the Austrian Lloyd, 73 steamers, 128,359 tons; the Allan Line, 39 steamers, 123 038 tons; the Spanish Compania Transatlantica, 34 steamers, 94,163 tons; the White Star, 20 steamers, 95,370 tons; and the Cunard, 26 steamers, 85,913 tons.

NO BETTER PROOF.

MILROY, MIFFLIN CO., PENNA.

To the Editor of the New York World;

"Mrs. John Gemmill, of this place, was thrown from a wagon, sustaining a most serious injury to her spine, and was

A HELPLESS CRIPPLE FOR 19 YEARS,

unable to walk. Her daughter providentially procured two bottles of

ST. JACOBS OIL,

which Mrs. Gemmill used. Before the second bottle was exhausted, she was able to walk about, and has been

COMPLETELY CURED."

Very truly,

M. THOMPSON, POSTMASTER.

SOLID COMFORT THE "WONDER ON WHEELS"

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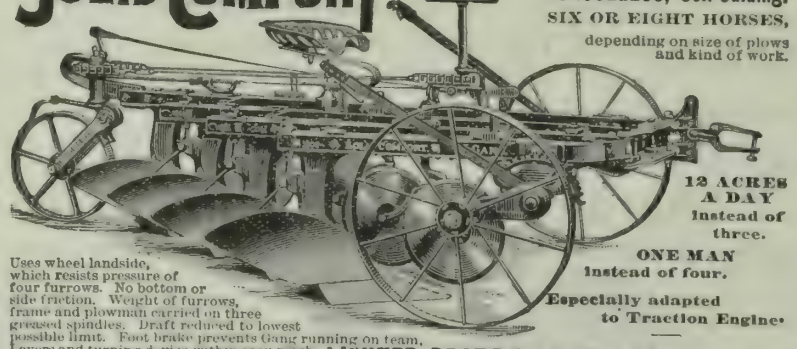
SIX OR EIGHT HORSES, depending on size of plows and kind of work.



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ONE MAN Instead of four.

Especially adapted to Traction Engine.

Uses wheel landside, which resists pressure of four furrows. No bottom or side friction. Weight of furrows, frame and plowman carried on three greased spindles. Draft reduced to lowest possible limit. Foot brake prevents Gang running on team. Levers and turning device within easy reach. LIGHTER DRAFT than any Gang in America. Easier Driving, Straighter Furrows, and Adjustable frames—can be narrowed or widened at will. Made with stubble, sod and stubble, or breaker bottoms. Ten or twelve inch cut.

ECONOMIST PLOW CO., So. Bend, Ind., or Stanton, Thomson & Co., Sacramento.

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AN OLD STYLE PULVERIZER.

Especially adapted to pulverizing "bottoms"—one man and a small boy can operate it.

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—THE—

PACIFIC SPADER!

Operated by one small Boy. No Man required.

SOMETHING NEW! FINEST IMPLEMENT IN THE MARKET. SIMPLE STRONG DURABLE PERFECTION ATTAINED

The Pacific Spader and Vineyard Cultivator. Does more work in one stroke than a Disc Harrow in ten. Sizes, 5½ to 12 feet.

TRUMAN, HOOKER & CO.

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—SIZES:—

No. 5D—	5½	foot	Spader	16-inch	Blades
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Linden, Cal., Nov. 26, 1892.

Messrs. Truman, Hooker & Co.,
San Francisco, Cal.

Gentlemen:-I was induced by your agent, Mr. I. O. Fowler, to purchase one of your PACIFIC SPADERS, which I have tested on some very hard land and must say it does its work to perfection. I will say to all who contemplate purchasing a Cultivator to take the Pacific Spader every time. I remain

Yours very truly,

C. V. Webb.

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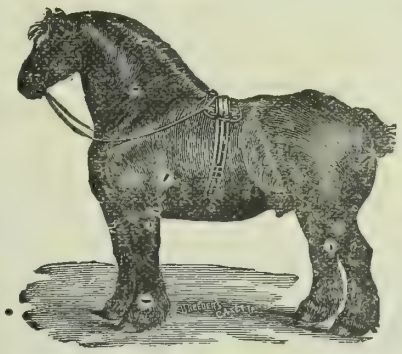

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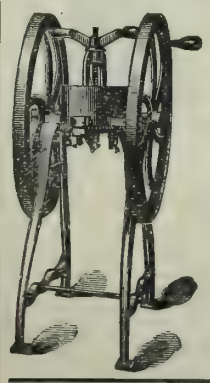

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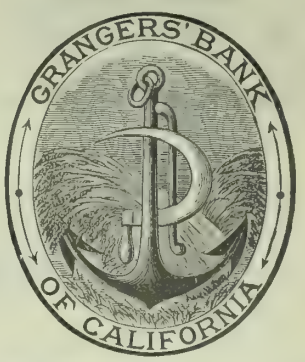

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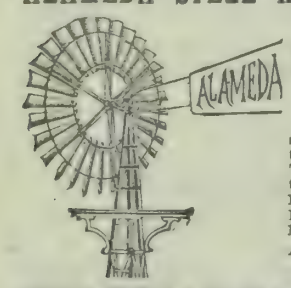

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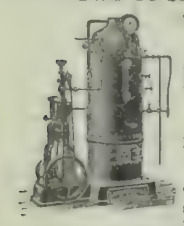

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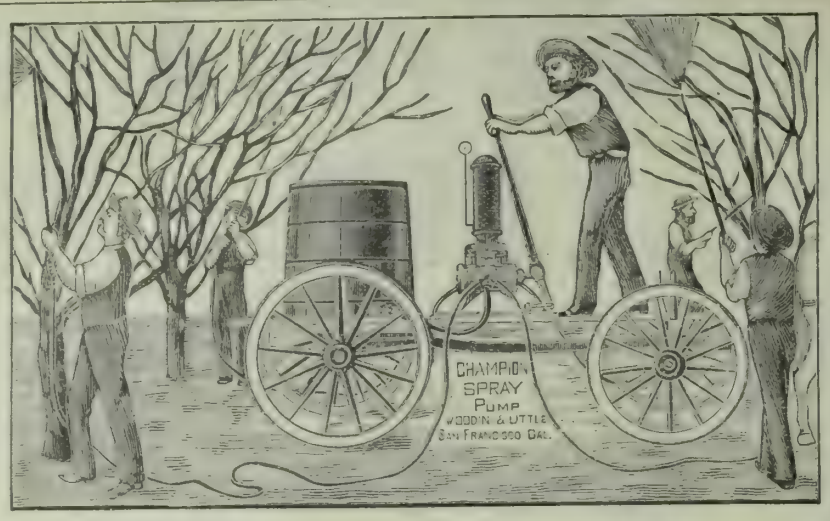
APIARIAN SUPPLIES. Golden Italian Queens. Tested, $2.00 each; untested, $1.00 each. L Hives, $1.90 each. Root's V groove sections, $5.00 per 1000. Dadant's comb foundation, 50c and 65 ca pound. Smokers, $1.00 each. Globe vells, $1.00 each, etc. WM. STYAN & SON, San Mateo, Cal.



CHAMPION SPRAY PUMP.

The above cut illustrates our new spraying pump, the "Champion," and its adaptability to the work for which it has been especially designed.

After ten years experience in the spraying pump business, and the wants of orchardists therein, we have built this pump, as being best suited to their requirements. Before putting it on the market we submitted the model to several prominent fruit growers, and as the design met with their unqualified approval also, we have no hesitation in declaring it to be the best spray pump ever made, and justly entitled to be named "Champion."

As will be seen from the illustration, the pump is very compact and strong. It is perfectly double-acting and has a brass-lined cylinder. The motion of the piston is horizontal. The handle is so arranged that the leverage is very powerful, and the movement is easy and natural. The air chamber is unusually large, admitting of the continuous and even discharge necessary for good and thorough spraying.

The valves are metal and have metal seats. They all lie directly beneath the air chamber and are readily exposed on loosening four bolts, and without touching the cylinder.

The pump has a double suction and a double discharge, one each on either side. The above cut shows the pump in operation with four lines of discharge hose. It can be readily arranged for a less number if desired. With this pump one man can easily keep four men busy spraying, as well as attend to the team and stirring of the liquid. We believe the pumps supply a long felt want, as, for service, convenience, easiness of operation and durability, they are far superior to any other in use.

Our BAMBOO EXTENSION is an admirable invention. The operator of the pump, by the use of this extension, can get to all parts of the tree while on the ground, also saving himself from getting his hands and face burnt from the solution. As a rule, the man who does the driving of the team does the pumping, and the party who has charge of the Bamboo Extension does the spraying. This is the very best pump made, without any exception.

NOTICE.

We also carry a full line of other Spray Pumps—GOULDS, STAR, EUREKA; also full line of Spray Nozzles, Spray Hose and everything connected with the Spray Pump Outfits.

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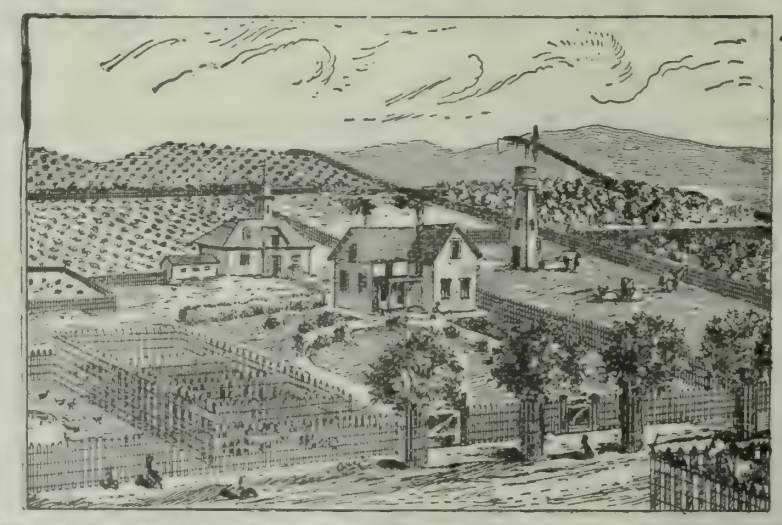

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STOMACH, LIVER AND BOWELS,
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Telephone No. 1746. SAN FRANCISCO, CAL.

S. F. Market Report

Market Review.

San Francisco, Dec. 7, 1892.

Trade in general produce was interrupted by rains during the forepart of the week under review, and toward the close by a feeling of uncertainty largely generated by fears regarding the outcome of the International Monetary Conference. A drop, during the week, in the price of silver strengthened the views of the bears on the grain market, that the conference will prove a failure, and that, if it is a failure, then much lower prices will rule for silver. Lower prices for the white metal means lower prices for wheat and other articles of the farm exported by India and other silver-using countries. Even the faith of the bulls in a higher market is somewhat shaken. By referring to files of the Rural Press, it will be noted that fully two months ago we stated that operators in this market for the moneyed syndicate which is operating at home and abroad in wheat, gave out that seller 1892 wheat would go to $1 25 before the close of the year. Yesterday the price was $1.25¾. It is said by parties in position to know whereof they speak, that, before the spring months of 1893, the wheat markets of the world will again be quite high. The local money market is essentially unchanged. The decline in silver and the unsettled condition of the market for that metal cause more or less uneasiness and a more pronounced feeling on the part of outside capitalists not to place funds until the future is more clearly defined. The banks are still accommodating regular customers, although the paper offered is more closely scrutinized.

Cereals.

Rains the last of November and the first few days in December have given the land in all directions a good soaking. In many localities where the land was only wet to a depth of a few inches in the winter of 1891–92, it is already wet down to 20 inches and more. This good soaking so early in the season, it is claimed, will give us good crops in 1893, provided the general average of spring seasons obtains.

Wheat futures have been hammered by the bears to very low figures—lower for the month of December than was ever before known. In the sample or cash market, prices have not shaded off much, although buyers bid lower. Sales are only made by holders when forced to let go. It is contended by some that the sending of wheat futures down will uncover the margin on large quantities of wheat against which advances were made. If this should prove to be correct, then we can reasonably expect wheat which cannot be secured to be thrown on the market. Probably it is in the realization of this expectation that buyers have been holding off and doing all in their power to depress values. The silver question is used by the bears for all that it is worth in depressing the market at home and abroad. The stock of grain in Call Board warehouses is fully one-fifth smaller now than at the corresponding date in 1891. The stock in Oregon and Washington is also smaller. Wheat charters are lower and weak at the decline. Iron vessels have been secured at 22s 6d, with favorable options to charterers. The *Bourse Gazette* of Petersburg reports that Russia's surplus available on November 1st was 104,000,000 bushels.

Barley futures have shaded off under a strong bear pressure and heavy rain influences. For sample or cash parcels buyers bid lower, which holders are slow to accept. Two vessels are under charter to load feed for Chile. At the lower prices quoted, export buyers are in the market for brewing grades. The strong markets at the East and in England for the more choice grades make shipments look like a profitable venture. The demand in this city from dealers is said to be light. Starting the plows and cultivators in the agricultural districts has called for more feeding, but this is largely offset by a falling off in the call from the dairy sections

Oats, although in moderate receipt and light stock, are weak, with buyers trying to secure further concessions. The demand is only fair, being confined largely to immediate requirements. The supply in Oregon, it is said, is not sufficient to meet requirements up to another season. Seed oats are in active demand and, when of extra grade, fetch an advance over outside quotations.

Corn is weak and slow, notwithstanding light receipts and the smaller crop. The limited outlet for the grain is against it. Dealers express the belief that better prices will obtain before the close of the season. This opinion is grounded on the supposition that the supply in this State is hardly sufficient to meet requirements.

Rye is dull and any pressure to sell is met by lower bids.

Feedstuff.

Ground feed is lower. Improved pasture and stronger selling of bran are against the market. The consumption is said to be falling off, and is liable to fall off still more as pasture improves.

Hay is coming in sparingly, but light as receipts are the market does not improve, owing to a falling off in the demand. Buyers purchase only in a hand-to-mouth way. While the market is not expected to go much, if any, lower, yet higher prices are not looked for unless we have very severe weather within the next two months; at present, the weather is not in favor of holders.

Fruit.

Common white apples are a drug, but choice sell fairly well. Choice, good-keeping greenings are being taken for home and shipping. High-colored, choice apples sell at $1.50 to $1.75, with Oregon buying. Poor pears are neglected, but choice move off fairly free. Winter Nelis have a fairly free movement, with something very choice selling as high as $2. Persimmons drag.

In the dried-fruit market the situation is virtually unchanged. Apricots, pitted plums and nectarines are scarce, as are choice grades of prunes. Grapes are lower. Choice grades of evaporated apples have a fair sale, with Oregon and Washington buying. Poor apples, pears and other varieties of dried fruit are hard to move. Figs are unchanged.

Choice to gilt-edged raisins are in light offering, but poorer grades are weak and in good supply. The demand is largely of a jobbing character. Dealers appear confident that prices will not only be no lower next spring than now rule, but there is a strong probability of seeing higher ranges.

Live Stock.

The market for bullocks and mutton sheep is in better position for sellers. For something very choice for holiday display an advance is obtainable. Hogs are firm as are calves. Dairy calves will soon be offering more freely. The yards at Baden were formally opened on yesterday. The opinion prevails that the establishing of this enterprise will prove of great advantage to the live stock interests of this coast.

Vegetables.

Garden truck is in poor assortment, being confined to weather varieties. Gardening is being prosecuted in all directions, and it is said that in 1893 there will be a large increase in the outturn. Cabbages, cauliflower and celery are firm.

Onions have been coming in moderately, and as the demand has been fair, better prices obtained. For something choice outside figures are readily secured.

The market for potatoes, after advancing slightly (above five cents) higher than quoted, closes barely steady. The advance in the market has caused shippers to hold off, and with any rolling pressure lower prices would obtain. Receipts from Oregon have been quite free.

Dairy Produce.

The receipts of butter, cheese and eggs at San Francisco in November were as follows:

Source.	Butter, Lbs.	Cheese, Lbs.	Eggs, Dozen.
California	646,800	318,300	62,552
Oregon	23,800	21,100	150
Eastern	22,300	200,400	471,360
Totals	692,900	539,800	480,062
January	502,200	476,900	420,345
February	622,550	313,500	200,245
March	1,188,700	574,200	358,756
April	1,793,050	802,900	590,668
May	1,713,100	715,300	536,170
June	1,811,200	634,100	503,735
July	1,157,700	789,400	374,211
August	1,376,300	694,800	447,325
September	1,560,300	786,900	408,461
October	1,657,400	695,800	480,062
Eleven months	14,255,400	7,047,900	4,929,178

During the first eleven months of 1891 the receipts were 12,498,800 lbs. butter, 6,288,000 lbs. cheese and 4,733,615 dozen eggs.

The butter market for pickled, solid packed and for eastern creamery is in buyer's favor. Choice to gilt-edged creamery and dairy are scarce and higher owing to bad roads and rough weather in last week interrupting receipts. Consignees are selling on receipt, fearing that, with improved pastures and more milch cows coming in, the production will increase quite rapidly.

Old cheese is in heavy supply and weak, but mild new is in light supply and held at full figures. In a jobbing way, as high as 12½ cents is secured for gilt-edged mild new.

Owing to consumers having turned largely to eastern eggs, Californian are weak, and to effect quick sales concessions are in order. Receipts of eastern continue free.

Miscellaneous.

Turkeys have moved down under free receipts and buyers being offish. Choice dressed with empty crops are going into cold storage but those with full crops are hard to sell. The writer saw at Stephen Harding's a box of very choice large-sized young bronze turkeys (dressed) which had to be sold low owing to full crops. They would with empty crops have sold well. Free receipts of eastern this week have weakened the market, yet for choice stock it is fairly firm. Ducks are higher.

Hops are quiet but firm. Considerable good to choice are going forward to the central States, which confirms the reports of a light yield of the better grades. English advices report a strong market for the better grades.

The receipts of wool are light. Light stocks and broken assortments are against sellers. The market movements at the East indicate better prices in next season,

Beans are steady. There is a fairly good coast movement.

Honey continues scarce and firm.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending Dec. 5 '92, were as follows:

Flour, qr. sks	50,079	Bran, sks	9,636
Wheat, ctls	168,799	Buckwheat "	....
Barley, "	24,100	Middlings "	2,026
Rye, "	1,326	Chicory, bbls	75
Oats, "	8,065	Hops, "	27
Corn, "	2,503	Wool, "	180
*Butter, "	306	Hay, ton	565
do bxs	356	Straw, "	1
do bbls	12	Wine, gals	160,500
do kegs	116	Brandy, "	18,920
do tubs	38	Raisins, bxs	13,269
do ½ bxs	51	Honey, cs	75
†Cheese, ctls	357	Peanuts, sks	42
do bxs	59	Walnuts "	376
Eggs, doz	11,730	Almonds "	1:9
do " Eastern	86,460	Mustard "	....
Beans, sks	4,695	Flax "	....
Potatoes, sks	22,932	Popcorn "	....
Onions, "	900	Broom corn, bbls	....

*Overl'd, 15 ctls. † Overland, 12 ctls.

Tonnage Movement.

From reliable advices up to Nov. 29, the following summary tonnage movement is compiled:

	On the way 1892.	On the way 1891.	In port 1892.	In port 1891.
San Francisco	257,985	314,739	*187,387	161,713
San Diego	11,205	20,419	7,188	.....
San Pedro	8,536	2,331	1,670	41,705
Oregon	43,367	64,725	18,847	
Puget Sound	23,125	29,552	.....	
Totals	344,228	431,766	215,092	203,418

*Engaged for wheat, 1892, 29,937; 1891, 102,806.

Markets by Telegraph.

Successful Fight Against a Freight Combine.

New York, Dec. 4.—A telegram from Jackson, Fla., of Nov. 30th says: "By to-day's decision by Judge Swayne, in the United States District Court, a rebate of five cents per box is ordered to be paid to all eastern shippers of fruit since November, 1890. This will aggregate $200,000 for the two years, and nearly $25,000 on fruit shipped so far this season." In November, 1890, all the railway and steamship lines made a combine, raising the freight rate to 40 cents. An appeal was taken to the Interstate Commission, which some months ago rendered a decision establishing the rate at 35 cents to New York, and proportionate rates to other eastern points. This success is due to persistent and intelligent efforts on the part of the Florida Fruit Exchange, and should stimulate the coast fruitgrowers to organization that will bear upon the cheapening of freight on their products so that larger consumption will follow.

Dried Fruits.

New York, Dec. 4.—There is more demand for prunes, but with the recent enlargement of the supply the last rate of 11 cents for four sizes is very full. Prime fifties for window show are quoted at 12 cents. Unpeeled peaches are easier for under grades; good quality in large lots, 12 to 13 cents; 500 bags of choice sold at 16 cents. Apricots are steady at 15½@17½ cents.

Lima Beans Active, Hops Steady.

New York, Dec. 4.—Lima beans are active for 100-bag lots at the late decline, quoted at $1 90 spot per bushel. The spot market for hops remains a nominal one. Best new State and Pacific are quoted at 23¼@24c; good to prime, 21@23c; 91s range 18@20c; selected, 22c; olds, 5@10c; about 700 interior State sold at 21@23½c, for brewers' use; some fancy are held at 25c. Exports for the week, 30,887 bales.

Nuts Are Active.

New York, Dec. 4.—Nuts are active. Arrivals of almonds are quoted at 15½@20c, the latter for tissue shells; walnuts, 11¼@11½c. Both are working into trade well at the moment.

Good Demand for Wine.

New York, Dec. 4.—The demand for wine is good, but buyers are not inclined to meet the advanced coast rates for some marks.

Raisins are Irregular.

New York, Dec. 4.—For the ordinary run of California raisins, buyers have to be met in values, and as before, prices are variable. Goods that pass close inspection and compare in every way favorably with Valencia are quoted as follows: Best three-crown, loose boxes, $1.35@1.40. Off styles are down to $1.75. Three-crown bags, 5 cents; four-crown, 4 cents; wet threes, 4@4¼ cents; layers, $1.55@1.80 for boxes. Apart from these, Forsyths or lots of No 1 merit, layers have touched $2.25, and fancy loose $1.75

Wheat Exports.

New York, Dec. 4.—The wheat exports the past week from both coasts (flour included) are the heaviest for three months, amounting to 4,533,000 bushels, against 3,465,000 bushels a week ago and 5,662,000 bushels in the same week a year ago.

Wool Firm and Active.

New York, Dec. 4.—Wool is firm at all eastern points, and as holders do not part with stock discriminately in the light condition of supplies, the market may be called active. Manufacturers try to get shadings on the mixing grade they require, because they fear considerable marking up on their foreign needs; but as it is, it is open information that New Orleans has appeared for clothing fabrics, and sellers will not recede a fraction for any fine lines. Foreign markets are higher. It is feared Australia will fall off in quality this clip. The season was dry and shearings thus far show thin hair and short growth. Sales at New York, 325,000 pounds of domestic and 154,000 pounds of foreign. Sales at Boston, 2,351,200 pounds of domestic, none of which was California; 450,000 pounds of Australia and 505,500 other foreign. It is announced that on December 15th, on wool freights from Chicago, the special tariff adopted last spring will be canceled, and the full classified rate restored.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	Dec.	Jan.	Feb.	Mar	April.	May.
Thursday	5s0⅞d	5s10 d	5s11½d	6s00½d	6s01½d	6s02½d
Friday	5s09½d	5s10½d	5s11½d	6 00½d	6s0½d	6s02½
Saturday	5s0.9 d	5s10 d	5 11½d	6s0 ½d	6s00½d	6s02½d
Monday	5s08¾d	5s09¾d	5s11 d	6s 0 d	6s00 d	6s02 d
Tuesday	5s08¾d	5s09½d	5s11½d	5s11¾d	6s0 ½d	6s01½d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market for P. S.
Thursday	32s3d	32s3d	32s3d	Quiet.
Friday	32s3d	32s3d	32s3d	Steadier.
Saturday	32s3d	32s3d	32s3d	Quieter.
Monday	32s0d	3.s3d	32s0d	Quiet but steady
Tuesday	31s9d	32s0d	31s9d	Weaker.

To-day's cablegram is as follows

Liverpool, Dec. 7.—Dull. California spot lots, 6s 6d; off coast, 31s 6d@31s 9d; just shipped, 31s 9d; nearly due, 31s 6d; cargoes off coast, very quiet; on passage, slow; Mark Lane wheat, quiet.

San Francisco.

WHEAT.

	Buyer Dec	Jan.	May
Thursday, high st	128⅝	....	133½
" lowest	128⅝	....	133½
Friday, highest	128⅛	....	133½
" lowest	128	....	133½
Saturday, highest	127¾	....	133⅜
" lowest	127⅝	....	132⅞
Monday, highest	128⅛	....	133⅜
" lowest	127⅞	....	132½
Tuesday, highest	127	....	132½
" lowest	127⅝	....	131

The following are to-day's recorded sales on Call:

Wheat—Morning—Informal—May, 100 tons, $1 30⅞; 500, $1.31; 200, $1 31½. Buyer December, 200 tons, $1.26; 200, $1.26½ per ctl. Regular Session—May, 1200 to s, $1.31½; 300, $1.31⅜; 3800, $1.31½; 500, $1.31⅜; 100, $1.3 ⅞. Buyer June, 100 tons, $1.33½ Buyer December, 100 tons, $1.26; 200, $1.26½ per ctl. Afternoon—May, 100 tons, $1.3 ⅞; 200, $1.32½; 1300, $1 31⅜; 1800, $1.31½. Buyer December, 100 tons, $1.26½; 100, $1.26½ per ctl.

BARLEY.

	Dec.	Jan.	May
Thursday, highest	....	....	91⅝
" lowest	....	....	9.½
Friday, highest	*89½	88⅝	91½
" lowest	89½	88½	91½
Saturday, highest	89	88½	90⅞
" lowest	89	88½	90⅞
Monday, highest	89	88⅝	91⅛
" lowest	87	88	90
Tuesday, highest	85	8.⅞	89⅝
" lowest	84⅛	84½	89⅜

*Buyer option.

The following are to-day's recorded sales on Call:

Barley—Informal—May, 500 tons, 89½c per ctl. Regular Session—May, 1000 tons, 89½c per ctl. Afternoon—Buyer December, 500 tons, 85c; 100, 85½c. January, 100 tons, 85¼c; 400, 85½c. May, 200 tons, 89c per ctl.

Eastern Markets.

The following shows the closing prices per cental of wheat for the past week at

New York.

Day.	Dec.	Jan.	March.	May.
Thursday	128	130	135½	138⅞
Friday	128	130	134⅞	138
Saturday	128	129⅞	134½	138
Monday	128½	130	134½	138
Tuesday	127⅞	129½	134	137½

The following is to-day's telegram—per bushel:

New York, Dec. 7.—Wheat—76½c for December; 77½c for January; 80c for March; 82½c for May; and 83c for July.

Chicago.

Day.	Dec.	June.	May.	July
Thursday	118⅝	121⅞	131	....
Friday	119	121⅞	131	....
Saturday	118⅞	121	130	129⅞
Monday	119½	121⅞	132	131
Tuesday	118⅞	121	13 ½	129½

The following is to-day's telegram—per bushel:

Chicago, Dec. 7.—Wheat 71½c for December and 78½c for May.

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

December 7, 1892.

Limes, Mex	3 00 @ 4 00	Beets, sk	— @ 50
Do Cal	— @ —	Carrots, sk	30 @ 50
Lemons, box	4 00 @ 5 00	Okra, dry, lb	8 @ 10
Do Sicily choice	6 50 @ 8 00	Parsnips, ctl	1 00 @ 1 50
Apples	40 @ 65	Peppers, dry, lb	7 @ 8
Do Choice	75 @ 1 25	Turnips, ctl	— @ 60
Do Extra choice	1 50 @ 1 75	Cabbage, 100 lbs	40 @ 50
Grapes, pr bx	75 @ 1 50	Garlic, lb	2 @ 2½
Pears	25 @ 75	String Beans, lb	5 @ 7
do Winter Nelis	1 00 @ 1 75	Lima Beans	3 @ 4
Persimmons	1 00 @ 1 50	Mushrooms	— @ —
Oranges, pr box—		Marfat Squash, ⅌ ton	5 00 @10 00
Navels, River'de	3 50 @ 4 50	Cauliflower	50 @ 65
Do, Butte Co	— @ —	Celery	50 @ 75
Seedl'g, River'de	2 00 @ 2 75	Asparagus	20 @ 25
Do, Fresno	2 75 @ 3 00	Rhubarb	10 @ 12½
Do, Butte Co	2 75 @ 3 00	Mushrooms, ⅌ lb	
Extra choice fruit for special purposes sells at an advance on outside quotations		Do, Common	8 @ 15
		Do, Button	17½@ 20

Live Stock.

BEEF.		MUTTON.	
Stall fed	6½@—	Wethers	6½@—
Grass fed, extra	6 @—	Ewes	6 @—
First quality	5½@—	Do Spring	7½@—
Second quality	4½@—	HOGS.	
Third quality	3 @—	Light, ⅌ lb, cents	5 @—
Bulls and thin Cows	2 @—	Medium	5 @—
VEAL.		Heavy	4⅞@—
Range, heavy	5 @—	Soft	4½@—
Do light	6 @—	Feeders	4½@—
Dairy	7 @8½	Stock Hogs	4½@—
		Dressed	7 @

General Produce

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

December 7, 1892.

BEANS AND PEAS.		Do country m'ls	3 00 @ —
Bayo, ctl	2 30 @ 2 35	Superfine	2 50 @ 3 00
Butter	2 50 @ 3 00	NUTS—Jobbing.	
Pea	2 50 @ 2 65	Walnuts, hard shell, Cal. lb	6 @ 8
Red	2 40 @ 2 50	Do soft shell	8 @ 9½
Pink	2 00 @ 2 10	Do paper-shell	9 @ 1
Small White	2 45 @ 2 55	Almonds, r'ft sh'l	12 @ 13½
Large White	2 25 @ 2 35	Paper shell	13 @ 15
Lima	2 75 @ 3 00	Hard shell	6 @ —
Fld Peas, blk eye	1 60 @ —	Brazil	8 @ —
Do green	1 75 @ 2 00	Pecans, small	8 @ 10
Do Niles	1 60 @ 1 75	Do large	14 @ 16
Split	4 50 @ 5 50	Peanuts	3½@ 4
BUTTER.		Filberts	10 @ —
Cal., poor to fair, lb	15 @ —	Hickory	7 @ 8
Do g'd to choice	22½@ —	Chestnuts	18 @ 20
Do Giltedged	— @ 3 ½	ONIONS.	
Do Creamery	27½ @ —	Silverskin	75 @ 90
Do do Giltedge	— @ 35	POTATOES.	
Eastern, lad e	12½@ —	River Reds	50 @ 60
Cal. Pickled	20 @ —	Early Rose, ctl	60 @ 70
Cal. Keg	20 @ —	Peerless	65 @ 80
East'rn Cream'y	25 @ —	Garnet Chilies	65 @ 85
CHEESE.		Burbank Seed's	70 @ 80
Cal. choice cream	9½@ —	Do do Salinas	1 10 @ 1 35
Do fair to good	8 @ —	Do do Oregon	1 10 @ 1 25
Do Giltedged	— @ 11½	Sweet	50 @ 75
Do Skim	5 @ 6½	Extra choice sell for more money	
Young America	— @ 11½	POULTRY.	
EGGS.		Hens, doz	6 00 @ 7 00
Cal. "as is," doz	20 @ —	Roosters, old	6 00 @ 6 50
Do shaky	15 @ —	Do young	5 50 @ 7 00
Do candled	30 @ —	Broilers, small	3 00 @ 4 00
Do choice	32½@ —	Do large	4 00 @ 5 00
Do fresh laid	— @ 35	Fryers	4 50 @ 5 50
Do do s'led whte	— @ 37½	Ducks	4 50 @ 5 00
Eastern cold-storage	20 @ —	Do large	5 50 @ 6 50
Do fresh	25 @ —	Do extra large	6 50 @ 8 00
Do selected	— @ 32½	Geese, pair	1 50 @ 2 25
Outside prices for selected large eggs and inside prices for mixed sizes—small eggs are hard to sell.		Turkeys, gobl'r	14 @ 16
FEED.		Turkeys, hens	15 @ 17
Bran, ton	13 00@ 14 00	Do dressed	17 @ 20
Feedmeal	25 00@ 26 00	All kinds of poultry, if poor or small, sell at less than quoted; if large and in good condition, they sell for more than quoted.	
Gr'd Barley	18 50@ 19 50		
Middlings	— @ 21 00		
Oil Cake Meal	— @ 35 00		
Manhatan Horse Food (Red Ball Brand) in 100-lb. Cabinets	— @ 8 00	Manhattan Egg Food (Red Ball Brand) in 100-lb. Cabinets	— @11 50
HAY.		GAME	
Compressed	8 00 @11 00	Quail, per doz	1 25 @ 1 37½
Wheat, per ton	8 50@ —	Ducks	— @ —
Do choice	— @ 13 00	Do Mal'd ⅌ doz	5 00 @ 6 50
Wheat and oats	8 00@ 11 50	Do Sprig	3 00 @ 3 75
Wild Oats	7 00@ 10 00	Do Teal	1 75 @ —
Cultivated do	6 00@ 9 00	Do Widgeon	2 00 @ —
Barley	6 50@ 9 00	Do small	1 25 @ —
Alfalfa	8 00@ 10 00	Geese	— @ —
Clover	8 00@ 10 00	Do gray ⅌ doz	2 00 @ 2 50
Straw, bale	35@ 50	Do White	1 00 @ 1 50
GRAIN, ETC.		Do Brant	1 00 @ 1 50
Barley, feed, ctl	80 @ — —	Snipe	— @ —
Do good	85 @ — —	Do English, doz	1 50 @ 2 00
Do choice	87½@ — —	Do Jack, per doz	75 @ 1 00
Do brewing	92½@ — —	Hare, per doz	1 00 @ 1 25
Do do choice	96½@ — —	Rabbits, large	1 25 @ 1 50
Do do Giltedge	1 00 @ — —	Do small	1 00 @ 1 25
Do Chevalier	1 00 @ — —	PROVISIONS.	
Do do Giltedge	1 15 @ — —	Cal. bacon, heavy, per lb	12 @ —
Buckwheat	2 25 @ — —	Medium	13 @ —
Corn, white	1 07½@ 1 10	Light	14 @ —
Yellow, large	1 00 @ — —	Lard	9½@ 12½
Do small	1 07½@ 1 10	Cal sm'k'd beef	11 @ —
Oats, milling	1 36½@ — —	Hams, Cal salt'd	13 @ —
Feed, choice	1 33½@ — —	Do Eastern	14 @ —
Do good	1 30 @ — —	SEEDS.	
Do fair	1 20 @ — —	Alfalfa	9½@ 10
Do common	1 10 @ — —	Clover, Red	15 @ —
Surprise	1 45 @ — —	White	30 @ —
Black feed	1 05 @ 1 15	Flaxseed	2 25 @ —
Do seed	1 17½@ 1 30	Hemp	4½@ —
Gray	1 30 @ — —	Mustard, yellow	5½@ 6¾
Rye	1 12½@ 1 17½	Do brown	4 @ —
*Wheat, milling Gi tedged	1 33¾@ — —	WOOL.	
Do choice	1 32½@ — —	FALL, 1892.	
Do fair to good	1 30 @ — —	S Joaquin, plain	6½@ 10
Shipping, choice	1 30 @ — —	Do mountain	10 @ 12
Do good	1 27½@ — —	Do lamb	8 @ 10
Do fair	1 25 @ — —	Northern Choice	14 @ —
Common	1 20 @ — —	Do Defective	11 @ —
Sonora	1 20 @ 1 30	Do Lamb	10 @ 14
HOPS.		HONEY—1892 Crop.	
1892, fair	18 @ —	White comb, 2-lb frame	9 @ 12½
Good	20 @ —	Do do 1-lb frame	11½@ 14½
Choice	21 @ —	White extracted	7½@ —
FLOUR.		Amber do	6¾@ —
Extra, city mills	3 90 @ —	Dark do	6¼@ —
		Beeswax, lb	23 @ —

Dried Fruits.

The quotations given below are for average prices received by commission merchants for consignments by growers. Something very fancy fetches an advance on the highest quotations, while poor sells slightly below the lowest quotations. Prices, unless otherwise specified are for fruit in sacks; add for 50-lb. boxes ½c per lb. and for 25-lb. boxes ¾ to 1c per lb.

APPLES 1892.		PEARS—1892.	
Sun-dried, ¼'s, prime	3¼@ 4	Sun-dried, quarters	— @ 3
Do do choice	4 @ 4½	Do sliced	4 @ 5
Do sliced, prime	4 @ 4½	Evap., slic'd, in b'xes	7 @ 8
Do do choice	4½@ 5	Unp'led, q'rt'd, bl'ch'd	5 @ 8
Evap. bl., ri g, 50-lb. bx	7¾@ 9	PLUMS—1892.	
Fancy, higher.		Pitted, sun-dr ed	10 @10½
APRICOTS—1892.		Do evap. boxes, choice	— @ —
Do bleached	13½@—	Do do do fancy	— @ —
Do do fancy	15 @16	Unpitted	4 @ 5
Evap choice, in boxes	15 @16	PRUNES—1892.	
Do fancy, do	15½@17	Cal. French, ungraded	7½@ 8
FIGS—1892.		Do graded, 60 to 100	9½@—
Sun-dried, black	4 @—	Do do 40 to 60	11 @12
Do white	3½@—	Fancy sell for more money.	
GRAPES—1892.		RAISINS—1892.	
Sun-dried, stemless	3 @—	London Layers, cluster per box	1 90 @2 00
Do unstemmed	1½@ 2	Do choicest do	1 50 @1 60
NECTARINES—1892.		Do prime pr bx	1 25 @1 40
Red, sun-dried	7 @ 8	Loose Muscatels, 2-crown, pr bx	75 @1 00
Do Evap., in boxes	— @—	Do 3-crown do	1 10 @1 20
White, sun-dried	9½@11	Do do do faced	1 20 @1 25
Do evaporated	— @—	Unstem'ed Muscatels in sks pr lb.	2½@ 3
PEACHES—1892.		Stem'ed 2-crown	2¾@ 3
Sun-dried, unpeeled	7 @ 7½	Stem'ed 3-crown	3½@ 4½
Do do prime, bl'ched	9 @10	Se'dl's M'sc't'l sks	4 @ 5
Do do choice, do	11 @—	Do do in bxs	— @1 00
Do do fancy	11½@—	Do Sultanas, sks	6 @ 7
Sun-dr., pl'd, bl'ched	@—	Do do bxs	— @1 40
Do do prime	14 @—	Halves, quarters and eighths 25, 50 and 75 cents higher respectively than whole boxes.	
Do do choice	— @15		
Do do fancy	— @16		
Evap., peeled, in boxes choice	17½@—		
Do do fancy	20 @—		

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Dormant Buds!

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SEEDLING PEACHES for Grafting and Budding.

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FIRST AND BEST OF EARLY YELLOW PEACHES.

RIPENS IMMEDIATELY AFTER THE ALEXANDER (White Cling), which is the earliest peach in market.

Fruit is round, of medium size, VERY HIGHLY COLORED, flesh firm and sweet.

THIS PEACH HAS BEEN SUCCESSFULLY SHIPPED EAST FOR FIVE YEARS and is no new, untried variety.

Tree healthy, strong grower, and heavy bearer, never having missed a crop.

A limited number of yearling trees for sale this season. Apply early before stock is exhausted.

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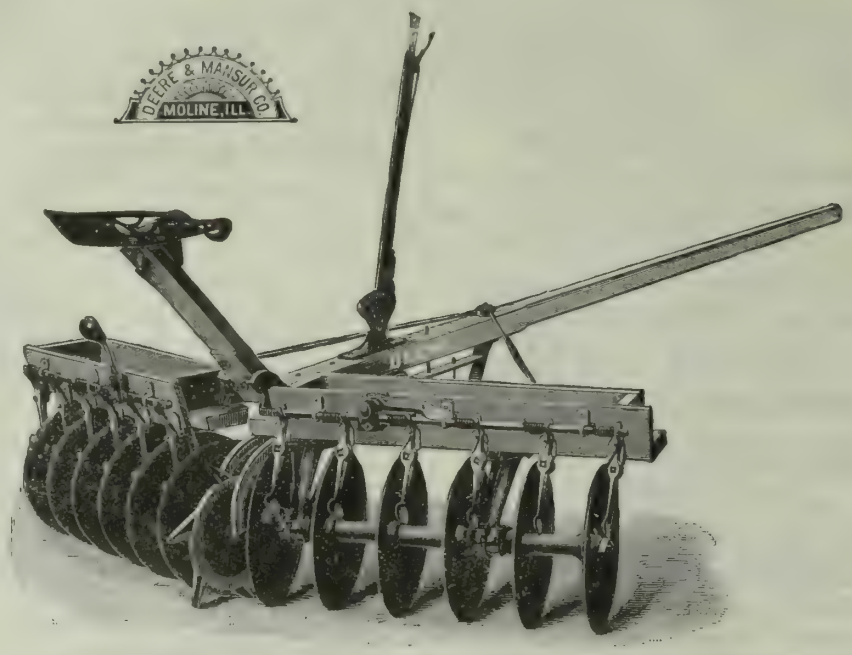

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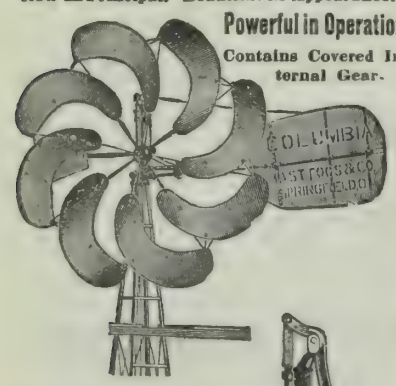

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THE NEW ELI for this season is doing the best work. Reports from North and South show its superiority. Our sales prove it.

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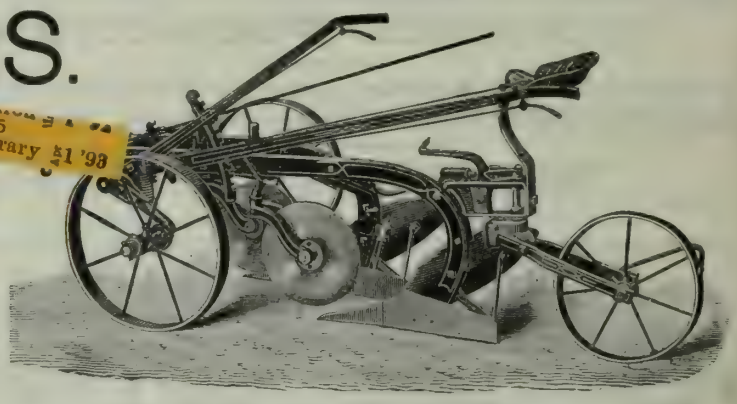

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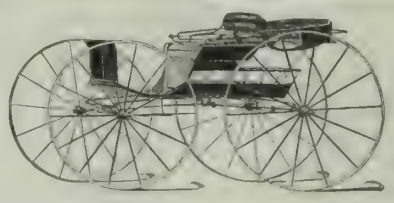

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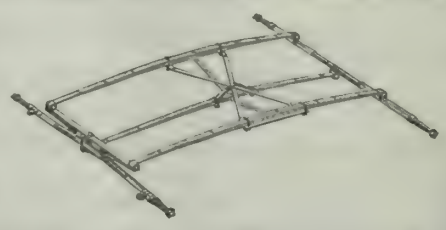

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There are no weak parts on the Rock Island Disc. It is ALL right. Right design, right construction, and right when used.

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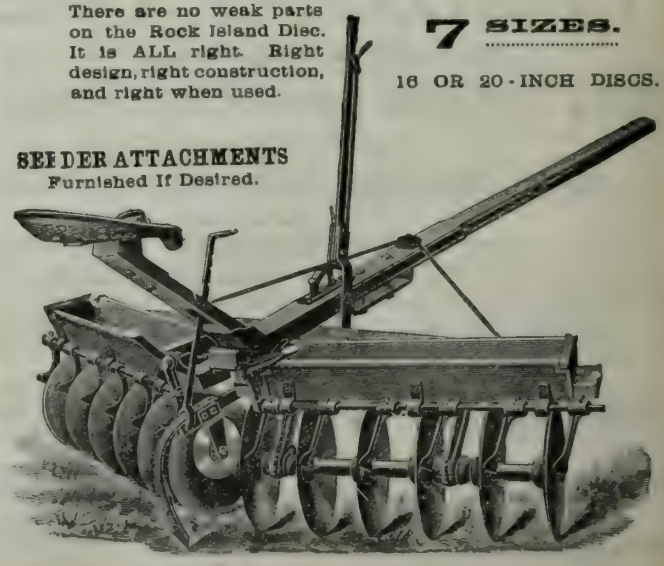


PACIFIC RURAL PRESS

Vol. XLIV. No. 25. SAN FRANCISCO, SATURDAY, DECEMBER 17, 1892. THE DEWEY PUBLISHING CO. Office, 220 Market St.

Grain Stocks and Wheat Outlook.

The stocks of grain reported in the State on December 1st by the San Francisco Produce Exchange compare as follows with the stocks held at the corresponding date in 1891: Flour, 92,024 bbls. against 140,043; wheat, 12,153,772 ctls. against 9,964,575 ctls.; barley, 3,797,654 ctls. against 2,883,602 ctls.; Oats, 263,243 ctls. against 168,404 ctls.; rye, 57,988 ctls. against 39,545 ctls. The large increase in the visible supply this year has been used as a hammer by the bears operating on call to beat prices to lower levels than before recorded. In this they have been the more successful owing to low, dragging wheat markets at the East and abroad. According to the best reputed authorities, the unfavorable condition of the markets of the world is not so much the result of supplies—for there was a shortage in crops this year in comparison with 1891—as the condition of the money markets at home and abroad. Under the discussion of bimetallism and a generally accepted opinion that the leading powers in Europe are hoarding gold, the feeling has been engendered that a financial panic can be precipitated at any time by an overt act of any one nation in its effort to acquire a large holding of gold. With fears of a panic, it is hardly reasonable to suppose that the bulls will take on courage and fight for higher ranges of values.

Aside from the markets of the world, it looks very much as if the situation in this State were favorable to the selling interest, and that the effects of a financial panic have been discounted. At present ranges of values, the cost of producing and marketing wheat are barely covered, and it has been the history of trade that when such a condition obtains "the staff of life" becomes a safe investment; but looking at it from another point of view, and the situation becomes still more favorable. Seemingly authentic advices from European countries concur in the statement that there has been a decided falling off in the acreage seeded this fall, and the outlook favorable for a corresponding decrease in the spring acreage. In this country reports are conflicting, and, while untrustworthy, yet they point to a less acreage of winter, with no increase looked for in the spring seeding. Accepting as approximately correct the general reports of falling off in the winter and spring seeding, it is reasonable to conclude that the outturn, taking all countries as a whole, will be less in 1893 than it was in 1892.

Semiofficial and official data at hand give a decided increase in consumption of wheat both at home and abroad, owing to its relative cheapness in comparison with other articles of food. Aside from this, it is reported that in parts of Europe, and in this country also, considerable wheat is being fed to stock. These are important factors and should not be ignored, for with their continuance, the supply, visible and invisible, in the world will be at the end of the season less than ever before known.

PETALUMA is shipping pickles East, and the *Courier* says it is all because of the superior quality of the product. Merit wins.

FLORIDA ORANGES ABROAD.—Florida oranges have recently been shipped direct to London, and advices are that the experiment is a success. The oranges for the most part arrived in sound condition, though many were decayed. This condition was brought about in large part by stormy weather, necessitating the closing of hatches on the steamer by which the shipment was made. Twenty-six hundred boxes of sound fruit brought $2.45 to $3.50 for bright varieties, $1.50 to $2 for russets.

UP to date, about nineteen counties have applied for separate space in which to make exhibits in the California State Building at the World's Fair. There is still ample room for the remaining thirty-five counties, which are holding back with a great deal of alacrity.

THE fruitgrowers of Franklin district, Santa Clara county, are the latest to meet for the purpose of forming a cooperative association and selling their fruits through the Santa Clara County Fruit Exchange.

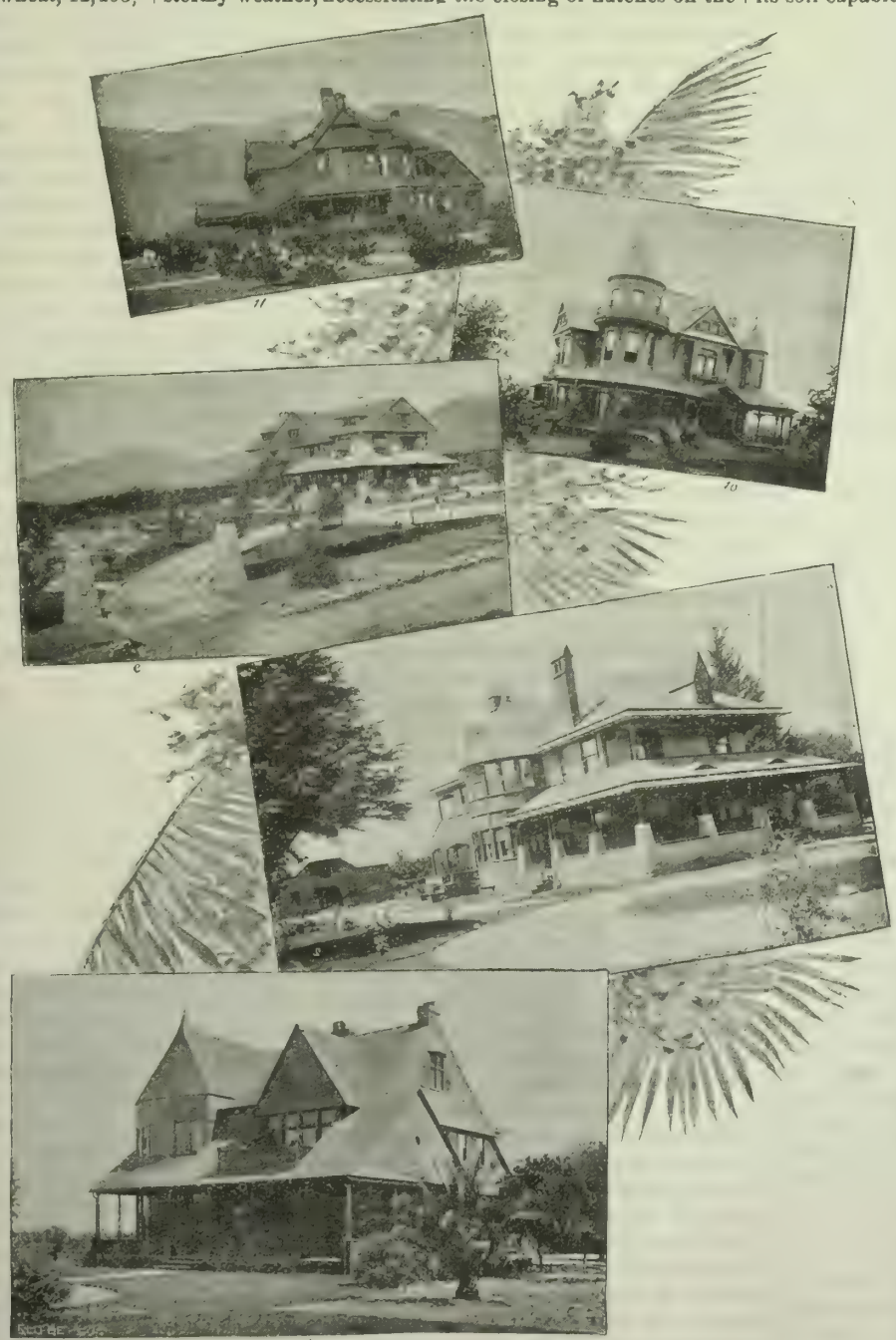
A City of Homes.

Pasadena, nine miles from Los Angeles, Cal., is known throughout the United States as an ideal location for homes. Its climate is mild, healthful, and equable and its soil capable of producing astonishing varieties of fruits and flowers. It shares with other California locations freedom from the usual rigors of winter or visitations of severe weather of any kind, excepting occasional winds of short duration, and these, of course, visit other places as well. It is within easy access of the mountains on the one hand, and the ocean on the other. It is not far removed from the centers of business, but it is far enough to be measurably free from the atmosphere of restlessness, discontent and avarice that is ever present in the great commercial centers. Its scenic surroundings are of especial beauty. It has every facility, natural and artificial, for an existence of tranquillity and satisfaction.

Surrounded by every resource for enjoyment, it is not remarkable that Pasadena has attracted from all parts of the United States people who come to make beautiful homes. In the accompanying illustration are shown several of the more prominent residences belonging mostly to wealthy Eastern people who make their winter homes in Pasadena. The surroundings of these homes are, without exception, beautiful and esthetic in the extreme. Native and exotic flowers bloom in the open all the year round, and the walks and drives are often floral bowers of loveliness, the lawns marked by evergreen growths of all kinds, and—one might say—of all climates.

The orange groves, the regular, well-kept streets and public buildings are not among the least attractions of Pasadena. It is altogether a lovely place, well worthy the attention of the many tourists who visit it and the invalids who often find health and strength there.

The residence of Hon. Joseph Medill, shown in the cut, was totally destroyed by fire in November. Another fine one is to be erected in its place.



PASADENA HOMES.

1—Residence of H. M. Singer (Chicago). 2—C. S. Christy (Buffalo). 3—Hon. Joseph Medill(Chicago *Tribune*). 10—A. A. Libby (Chicago). 11—Dr. G. G. Green.

AT a meeting of orange packers and shippers last week, in Riverside, the prices reached in the agreement was confirmed and a motion put by Mr. Earl that the regular size of navels be 96 to 176, inclusive, with a reduction of 50 cents on 80's and 200's, and $1 on size smaller than 200's or larger than 80's; also regular sizes on seedlings be 128 to 226, inclusive, with a reduction of 50 cents on sizes larger and smaller than 128's or 226's. The motion was carried unanimously.

SOUTHERN CITRUS FAIR.—The Southern Citrus Fair will be held at Colton. There has been a lively contest between that city and Los Angeles, but the State Board of Agriculture Monday decided in favor of the former. Preparations are already being made at Colton on a large scale for the event.

A FARMER in the State of Washington recently tried the experiment of feeding his hogs arsenic to kill kidney worms. The experiment was more than a success, the worms being completely destroyed—also the hogs.

PACIFIC RURAL PRESS.

By The Dewey Publishing Co.

Office, 220 *Market St.; Elevator*, 12 *Front St., San Francisco., Cal.*

Annual Subscription Rate Three Dollars a year. While this notice appears, all subscribers paying $3 in advance will receive 15 months' (one year and 13 weeks) credit. For $2 in advance, 10 months. For $1 in advance, five months. Trial subscriptions for three months, paid in advance, each 50 cents.

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	1 Week.	1 Month.	3 Months.	1 Year.
Per Line (agate)	$ .25	$ .50	$ 1.20	$ 4.00
Half inch (1 square	1.00	2.50	6.50	22.00
One inch	1.50	5.00	13.00	42.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type, or in particular parts of the paper, at special rates. Four insertions are rated in a month.

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Any subscriber sending an inquiry on any subject to the Rural Press, with a postage stamp, will receive a reply, either through the columns of the paper or by personal letter. The answer will be given as promptly as practicable.

ALFRED HOLMAN.....General Manager

San Francisco, December 17, 1892.

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BUSINESS ANNOUNCEMENTS.

[NEW THIS ISSUE.]

Commission Merchants—W. C. Price & Co.
Books—Henry Carey Baird & Co., Philadelphia, Pa.
School—Bowen's Academy, Berkeley.
Seeds—D M. Ferry & Co., Detroit, Mich.
Cultivator—G. G. Wickson & Co.
Seeds—Samuel Wilson, Mechanicsville, Pa.
Harrows—Cutaway Harrow Co., Higganum, Conn.
Harrows—Byron Jackson.
☞ *See Advertising Columns.*

The Week.

The elements have faced squarely about this week and a better run of weather for field work could hardly have been made to order. The result has been the greatest activity in all lines of plowing and sowing. Reports are from the bay region at least, that work is well advanced for the season. While this is an advantage, the farmer who has grain and hay to sell, bemoans the outlook for pastures, which will make the stock-feeder's purchases of feeds very small and consequently depresses prices. Even the dairyman, who glories in the grass, cannot forget that his quickened yield of butter will meet low prices. No one is quite happy, for every blessing brings its negative.

But we mistake; fortunately there is one completely happy element in our population. The children are fairly glowing with Christmas anticipations. The glorious weather invites all to the toy shops, and, judging from present indications, the children of California will have the grandest Christmas which has ever fallen to their lot. So mote it be.

A New Orange Fungus.—A new disease has made its appearance in the navel oranges in San Bernardino county. On cutting open the orange, a black spot, from a half to one inch in size, appears. It is said by Prof. Pierce, special agent of the national agricultural department, to be black rot. He recommends spraying with ammoniacal copper carbonate, of which the formula is: Copper carbonate, 5 oz; aqua ammonia (26°) 3 pints; water, 45 gallons. Prof. Pierce estimates the loss to the navel crop from black rot at five per cent, but growers say the estimate is too high. No serious trouble from the rot is feared at present.

Phylloxera Experiments.—C. J. Wetmore of the Viticultural Commission makes a progressive report on his plan to test resistant vines in various parts of the State. Plats will be set out in Napa, Los Gullicos, Stockton and Santa Clara valleys, for the purpose of experimenting with the class of vines that are not affected by phylloxera.

Hints for the Planting Season.

Soils deeply moistened, skies clear and sunshine warm, all exhort the tree and vine-planter to betake himself to preparations for planting.

He who has thought his plans out well, probably already has his preparations well advanced. If he began last winter with deep and thorough tillage of the soil, and either kept his field in well-worked fallow or raised a "hoed crop" during the summer, he has his land in better form for planting than if raw land or new stubble is to be brought now into good condition. The man who has thus prepared his soil in advance probably also gave the nurseryman an early order and will get an early shipment of the best trees of just the kinds he wishes—that is, barring accidents which are, alas, too frequent.

The planter who plans in advance in horticulture has just the same advantage that blesses the foresighted in any other pursuit. The business man who orders goods at the time when he ought to be selling them; the lawyer who studies his case while his associate is arguing for a postponement; the preacher who prepares his sermon when he ought to be resting for its delivery—all these are brethren of the man who leaves his preparations for planting until the days when new roots should be growing in his young orchard.

Few of us, however, attain our ideals, and yet all should have them. Fortunately, the California winter is such that there is a very wide margin of time within which things may be done. He who begins now his work upon the soil, and his correspondence with the nurseryman, can still do planting which will bring him success and satisfaction. Let the plow sink deep into the mellow soil. Break up all hardpan which has perhaps been formed by years of shallow culture for grain or by the tramp of grazing animals. Turn the furrow neatly. Follow the plow with a subsoiler, which loosens the lower strata, but does not bring them to the surface. Harrow well to reduce the whole field to good tilth.

If the plowing has been well and deeply done, the preparation of holes for the trees need not be such an undertaking as some make it. In most cases, the excavation of a cistern in which to plant a tree is not only an expensive, but a dangerous thing. In well and deeply-cultivated soil the hole need be but large enough to contain the roots without cramping or twisting. Set the tree on ordinary soils, so that when the ground settles it shall stand with reference to the surface about as it did in the nursery. In light, sandy soils it may be set a little deeper, but guard against deep planting; it is the cause of many losses.

If you have a good force of men, it is better to dig holes and plant trees simultaneously, dividing the work, of course, so that the diggers and planters may proceed evenly. To dig a lot of holes to dry out, and to distribute a lot of trees to dry up, is not a good division of labor. There has been great advancement made recently in planting orchards cheaply and speedily and it is wonderful with what precision it can be done, with proper men, animals and tools, in the kind of soils which are preferable for orchards. These operations are chiefly confined to those who plant by contract. The man who plants his own trees with his own farm hands cannot acquire such speed, but by putting his brain at work, and with the aid of a manual on the subject, he can do excellently. There are, however, a few unfortunate things which are often thoughtlessly done, and possibly we can help some new planter by hasty reference to them.

Do not allow the tree bundles to lie at the railway station until you are ready to plant the trees. Some men work a week getting a field into the best condition, while the trees are getting into the worst possible condition by lying in the bundles on the platform of the railway station or in the corner of the field. A few days of dry wind may kill or seriously weaken the best trees in the world. Haul the trees to the ranch at once, open the bundles, "heel in" or temporarily plant the trees in a trench and then considerable delay will work no injury. Many a nurseryman is upbraided for trees which have been killed at the railway station or in the fence-corner.

When the tree is being planted, be sure the soil is brought into close contact with the roots. No matter how carefully the roots are cleared of bruised portions and arranged in the hole, if they are left in soil loosely shoveled upon them their chance of life is small unless a rain comes immediately to firm the soil around the roots. When, then, the roots are placed and covered with mellow soil, tramp well the soil around the roots, leaving only the last three inches loose. And the other extreme is only less dangerous. Some one has advised against planting a tree as one would a gate-post, ramming the soil to the top of the hole. This should never be done.

Having the tree well set, cut back at once lest this important work be forgotten. If the tree be a yearling switch, cut back to a good bud at the height the head should be formed, and this height varies with the locality and the taste of the planter, always remembering that *low* is the rule, and it is only different degrees of low which should be considered. If the tree be a June bud, which is a tree now preferred in some parts of the State, especially in the foothills, take out the leader at the height for a low head, shorten the laterals needed to start a well-balanced head and remove the others. If a "dormant bud" is planted, cut back to a few inches above the bud, and, after the growth has well started, remove the stub.

After the trees are well planted, the planter can await with satisfaction the later rains, using the plow or cultivator as needed, to prevent the weeds from getting beyond his control, and continuing his later cultivation to keep the surface of the soil loose for the retention of moisture.

On ordinary lands, in localities of adequate rainfall, an orchard thus started will proceed satisfactorily the first year. If irrigation is needed, let the water flow just before the tree shows distress, and cultivate or mulch to prevent baking of the ground around the tender plant.

Death to the Quail.

The enormous number of quail continually sent into the San Francisco and other California markets gives rise to a strong and apparently well-founded suspicion that wholesale capture of this species of game, by trapping, has been going on, in direct defiance of law and of sportsmanlike methods of their slaughter. It has been estimated that 12,000 quail per week are received at Sacramento, thence in great part to be forwarded to this city. Most of the game gives no evidence of having been shot—a method not at this time unlawful—and it is even said that, to avoid the appearance of engaging in an illicit traffic, the trappers tie up a number of quail in a bag and then fire into them with small shot.

There is a law in this State against trapping of game, but it is practically a dead letter, the legislature having failed to make it the special duty of any officer to secure its enforcement. The quail trappers have, therefore, no obstacle in the pursuit of their illegitimate pursuit; and, around Sacramento, the woods are full of traps and the markets of game.

If this sort of thing is allowed to go on unchecked, it can be only a short time until quail are altogether exterminated. The fruitgrower ought, of course, to have the right to protect his fields against invasion by these birds, and no charge should lie against him for thus protecting his crop during the closed season, but this guerilla warfare is a nefarious pursuit and should be stopped.

Opening of the Baden Stock Yards.

The new stockyards at South San Francisco, San Mateo county, were formally opened on Thursday, the 8th inst. A special train was run from Third and Townsend streets to Baden, thence over the new branch line, by which a number of invited guests were conveyed direct to the new abattoir, where they were met by the managing director, Mr. Smith, and others, who immediately proceeded to the business of showing the visitors through the building, meanwhile explaining details of all the various branches of industry connected with the immensely large establishment, as suggested by divers questions asked by one or other of the several visitors.

About 180 to 200 head of cattle a day are now being killed, besides sheep. No hogs had then been received, but we understood that they would be ready for them in a few days. Immediately after the carcasses are dressed, they are run on elevated carriers into the cooling-room, and after remaining there a sufficient length of time, are passed on to the drying-room, both of these being kept at a temperature of about 36 degrees, where they can remain for an indefinite time.

Preparations are made for putting all of the offal to some useful purpose, down to the making of fertilizing materials for the land.

Wheat for Idle Land.

Anent the recent very able address of Gen. N. P. Chipman on "Fruit vs. Wheat," the Kern county *Echo* has this to say:

This does not militate against what the *Echo* has been saying, namely, that we ought to have more grain-farming in this county. Its the idle land which we want to see planted to grain. This should be done, for the double reason that, in the nature of things, all our idle lands cannot at once be planted to fruit, and it should not be if it could. The opinion is universal here that it is not profitable to plant new land to trees or vines, but in all cases such lands should be irrigated and cultivated for one or two years anyhow, before planting to fruit. Fruit in the end, but begin with grain, seems to be the best rule to adopt.

Large preparations are being made for the poultry and pet stock exhibition at Petaluma Jan. 10th to Jan. 14th. The premiums aggregate $1100.

From an Independent Standpoint.

The statement of the Pension Commissioner that the pension charge would reach its high-water-mark in 1894 and that it would that year call for two hundred millions of dollars, is disputed by the Secretary of the Treasury, who admits that in a brief time the pension list will call for two hundred and fifty millions. During the past year 311,000 pensions were granted and 300,000 cases are now on the docket to be heard from. Every day sees hundreds of new applications and it is evident that the maximum number of pensioners and the maximum of the annual pension charge is some years ahead. Already this charge is something above three dollars per head for every man, woman and child in the land; next year it will be over four dollars and, according to Mr. Foster's estimate, it will in 1894 be between five and six dollars. Thus at the present time a household of six persons contributes about twenty dollars per year to the pension fund and three years from now will contribute double that amount, or forty dollars per year. That the tax is indirect does not alter the fact of its existence—it is represented in the prices of general domestic supplies and is as surely a tax as if it had to be paid to the sheriff at a stated time in a lump sum of coined dollars. If the large sums paid out annually in the form of pensions represent assistance to actually disabled veterans there is small reason to complain. The loyal people of the nation will, in that case, bear the burden without murmuring; but if they represent forty per cent of fraud, as has been declared, that is a very different thing.

The suggestion has often been made that the entire list of army and navy pensioners be published, but for some unexplained reason it has never been done. A new demand is now being made by the Springfield *Republican*, and it ought to be supported by the united sentiment of the country. Publication of the list could do no harm and it might, as the *Republican* points out, do good in several ways. There are undoubtedly many names upon the rolls that have no place there, even under our recklessly liberal legislation and loose administration. It is matter of common admission that rigid scrutiny of the pension rolls would strike from it as fraudulent hundreds of thousands of names. The very act of publishing the list of pensioners would subject them to a popular scrutiny, in many ways more effective than that of examining boards. Publication would cause cases of fraud and abuse to become the subject of popular and newspaper discussion so pointed that official notice would follow as a matter of course, and they would be stricken from the rolls. Millions of dollars would probably be saved the Government by this simple, almost automatic purging of the pension list.

Publication of the list would in all likelihood purge the rolls in another way. Many men in no wise needing assistance, but who, on the contrary, are rich or well-to-do, are drawing pensions to which they have a perfect legal right, but which they ought to be ashamed to take. Another shameful abuse of the generosity of the Government is pointed out by the Washington correspondent of the Boston *Transcript*. "Here in Washington," he says, "the spectacle is witnessed of a number of men, probably reaching into the thousands, drawing pensions from the Government and handsome salaries at the same time—that is, drawing two salaries at once, in defiance of the Constitution. Cleveland's Commissioner of Pensions, General Black, was drawing a large pension during his term of office, for 'general disability,' and a $4000 Government salary besides. Harrison's first commissioner, Corporal Tanner, drew $100 a month also for general disability when he was at the head of the Bureau. It was the same way with Colonel W. W. Dudley, when he, in his 'general disability,' drew the $4000 salary attached to the pension commissionership. 'As soon as a man gets a pension,' says this correspondent, 'he at once applies for a Government place, and the number of men drawing salaries of $2000 and $3000 and $4000, while at the same time they are swearing to their 'disability' and drawing a big pension, would be startling if a list were made.' These proceedings are not illegal, but they are so far immoral that their beneficiaries shrink from publicity. This is the very reason why publicity should be given them."

We believe that the sentiment of the country not only approves but demands that worthy veterans who need assistance shall be liberally provided for; but it is an outrage upon this generous sentiment to load up the pension rolls with names of the unworthy and the well-to-do, and thus add to the burden of the tax-payers.

Jay Gould's will, which has been filed for probate at New York, disposes of property alleged to be worth $72,000,000 but which at present quotations is in reality worth one-third more. Conservative estimates based on actual market values confirm the earlier report that Gould died a hundred-millionaire. The will gives $25,000 to each of his surviving brothers and sisters, with a small annuity to each, but nothing to persons not of his own blood and nothing in the way of benevolence. The eldest son is given $5,000,000 as payment for past services as manager of his father's business, and the remainder—the vast bulk of the estate—is given to this son and his five brothers and sisters, share and share alike. But while the estate is thus given to all of Gould's children, it is expressly directed that it shall not be divided. It is to be kept together in the form of a trust to managed in accordance with the single will of the elder brother, who has been trained to his father's methods. Thus, while the property of six persons, this vast estate is to be held together and wielded by a single hand. It is provided that if any one of the heirs shall marry without the approval of the others he or she shall forfeit one-half of his or her portion, the forfeited interest to be added in equal shares to the portions of the remaining heirs.

This will is being severely criticized chiefly because it makes no provision for charity; but to the RURAL this seems its smallest demerit. We are rather pleased, in fact, that no opportunity is afforded to thoughtless persons to gloss over the iniquities of a bad life by pointing to a deed of melodramatic benevolence at its close. If Gould had left the one-hundredth part of his ill-gotten fortune to charity, there would not have been lacking persons of more sentiment than sense to make the act appear as a justification or paliation of his vicious career. It is undoubtedly better that there should be no post-mortem whitewash of Gould's character; that it should stand in all its real blackness—a thing to which nobody can point with excuse or apology. The gift of one million or fifty millions, or the whole of the estate for that matter, to good purposes, would not have made the faults of Gould's methods one whit less infamous, and it is well that in death, as in life, his selfishness should be the most prominent fact in view.

But another and more practical view of this disposition of a great estate, quite independent of the means by which it was accumulated, is worth the attention of the American people. Here is the point: Is it in accord with correct principles of public policy to permit a very rich man to so tie up his estate that it can be used as an engine of destructive power after his death? Admitting for the sake of discussion what we doubt as a fact—namely, that any man can have a just title to one hundred millions of dollars worth of property—is it good policy to allow him to control that property not only during his life, but after his death? By his will, under the protection of law, Jay Gould dead is permitted to carry on the ruthless predatory career of Jay Gould living. Is this not contrary to public policy? We think it is. Ought it not to be impossible? We think it ought. In failing to enact laws to compel the breaking up of vast estates upon the death of the owners, are not the American people permitting to be nullified a great principle won by their forefathers and implied in enactments against primogeniture? We think they are. In dividing his estate Gould has done what others of his class are doing—perpetuating a money concentration which in our judgment is dangerous to the interests of the American people.

Next to nothing has been done in Congress during the past week. On both sides, the members are too much taken up with politics to come down to business easily, and it is not expected that anything will be accomplished till after the holiday recess. Then, probably, the Nicaragua Canal proposition and the anti-option measure will be fought to a finish. Discussion of the anti-option bill has already begun in the Senate, and while no notable arguments have yet been presented, it is certain that the very best talent of the chamber will be brought into the discussion. There seems to be very general misapprehension as to the scope of this measure, and it is opposed by many who might be expected to favor it, on the ground that it forbids all speculation in farm products; that under its provisions the farmer could not sell for future delivery, and that the manufacturer could not buy for future delivery. Those who thus construe the measure utterly misconceive its meaning and effect. As a matter of fact, the framers of the bill recognized to the full the advantage of selling actual products for future delivery. The farmer may sell his crop before it is planted; the manufacturer may buy his supplies a whole year before he needs them. The merchant may with perfect freedom buy of the one and sell to the other. There is no restriction upon buying and selling, except where a man sells what he does not own, or buys what he does not expect to own. It is merely the betting on prices that is prohibited. The opposition to this comes (except in the case of those who misunderstand it) only from the "street"—that is, from those who make "futures" the basis of gambling operations. If the effects of these operations were limited to the "street" there would be no reason to complain; but, as a matter of fact, they utterly confound legitimate values and thus play havoc in the markets where farm products are actually sold. The Grange, the Farmers' Alliance, the Peoples' party, and all the unselfish and moral elements of the country support this measure. It is opposed by the whole speculative interest of the great cities, and every means at the command of unscrupulous capital will be brought into the fight against it. The House of Representatives has already spoken and the final determination of the matter rests with the Senate.

The official count of votes cast in this State at the last election was completed on the 8th inst.—one month and two days after the poll. The figures for presidential electors are as follows:

Cleveland	117,908
Harrison	117,756
Weaver	25,226
Bidwell	7,989
Entire vote cast	260,000

Thomas R. Bard, Republican elector, was the only one elected on the Republican ticket, defeating J. F. Thompson, who received the lowest vote on the Democratic ticket. The Prohibition party failed to poll enough votes necessary to have the names of its candidates placed on the ballots hereafter.

The International Financial Conference is still in session at Brussels, but there are no indications that it will reach a conclusion in accord with American desires. It becomes more and more evident that the several continental nations will follow the lead of England; and the policy of England, as one of her representatives bluntly declared last week, is and must continue to be that of a single gold standard. The injustice of this policy to debtor nations is being strongly presented before the Conference, but hope of a solution of the problem is no longer cherished. In all likelihood, the question will be thrown back upon the United States in precisely the form it has presented during the past two years.

Value of Institutes.

Tulare Grange, Patrons of Husbandry, has decided to form a Farmers' Institute, and the movement appears to be making progress throughout the State. Agriculturists, horticulturists and all engaged in productive pursuits are beginning to understand the value and importance of comparison of views and experiences in their several occupations. They correctly believe that they do not know all there is to learn, and that they may profit by knowledge of what others have done and are doing. Discussion is certain to bring out the best approved methods of cultivation, as well as knowledge of market conditions.

The Bakersfield *Californian* narrates an incident that sufficiently illustrates the profit that might have been derived if a producer had been in possession of such information as a Farmers' Institute would have been certain to give him. It says:

> A gentleman in the vicinity of Pomona has a splendid prune orchard, which yielded immensely this season. Prunes had been selling the previous season at from $20 to $25 per ton, the latter price being for the prime article. Just before the prunes were ready for market, a gentleman representing a fruit-packing company visited Pomona. At the time the market had gone up to $35 and $40 per ton, and the fruit was in great demand, but this producer did not belong to any society nor read the papers. Going home in his buggy he invited the agent to ride out with him and examine his crop, of which he was proud, and on the way the agent asked him how much he would take for his crop. He hesitated at first, but remembering last year's prices, he said: "I'm afraid you cannot purchase my crop, for they are extra fine, and I expect to get $30 per ton for them." After arriving at the orchard and examining the fruit, the agent remarked: "These are about as fine as I ever saw, and, in order to secure them, I will give you $35 per ton for them." The old man did not wait for any further information, but took the money, and the next day he went to town and was crowing over his good bargain when he was told that the price of good prunes had gone up to $50 per ton.

The moral is obvious.

GASHED.—In the last report of the American Pomological Society, we find the remarks of a Californian (speaking of scale-infested orange-trees) given in these words: "The tree must be gashed," etc. Evidently the Eastern mind has not risen to the gas treatment, and the declaration that the tree must be gased is therefore given the murderous phrase. Californians have something of a bloodthirsty reputation, and this report will confirm it.

CORN FETE.—Petaluma has lately been enjoying a "corn fete"—not of the painful kind that requires the careful attention of the chiropodist—but a sort of a fair in which the succulent tamale played a prominent role. It is said to have been a very pleasant affair.

FLORICULTURE.

Some Good Roses.

At the regular monthly meeting of the California State Floral Society, Friday, December 9th, the following essay, by Mr. Horace G. Pratt, of Fruitvale, was read:

It is not my purpose in this paper to attempt the impossible task of giving a list of the best dozen, or 25, or 50, roses. Some time since I made the attempt, but at once discovered that, in the nature of things, it could not be done. The primary qualification of a good rose is beauty, and what is beautiful and what is not, is largely a matter of taste. To illustrate: Some prefer the classic and dignified formality of Baroness Rothschild to the somewhat irregular but graceful freedom of Madame Gabriel Luizet, and others the reverse. Others again put much stress on odor. To them a rose is not a rose if it has no sweetness. With still others, floriferousness, keeping qualities and sturdiness of growth go a long way in determining a choice, and then, again, use and location are important in solving the problem. But it is easy to give a list of *good* roses with something of their peculiarities, and the people can choose to their liking, with the assurance of not going far wrong in the matter.

That class of roses known as Hybrid Perpetuals or Remontants (*Rosa Damascena Hybrida*), so popular in the East, must here yield the first place to the ever-blooming sorts, for though beautiful and desirable and almost indispensable, they are not perpetual bloomers, as the name would seem to imply, giving in reality but one good crop of flowers in the spring and a few only in summer and autumn; and besides they are, for the most part, subject to the attacks of a fungus resembling yellow rust, that causes the leaves to fall off quite early in the season. For this there has yet been found no sufficient remedy. The best we can do for them is to give plenty of rich food and good cultivation. To dig up and burn those affected, as is recommended by most writers, would be folly unless we should desire to rid our gardens of them almost entirely, for very few sorts would remain, and those not of the best.

The list that follows embraces some of the best sorts. Others may be, and no doubt are, as good, but these may be relied upon in this locality at least.

Paul Neyron is the largest rose grown, sometimes attaining a diameter of seven inches. Six inches is not uncommon. The form is apt to be a little irregular, and its texture coarse. It is sweet and keeps well after cutting. Color, rose. The wood and leaves are light green and almost free from thorns. Does not often rust. Good grower.

Magna Charta is another large rose and a stalwart, clean grower. It never seems to have anything the matter with it. The flower is more regular than Paul Neyron; a clear rose or deep pink in color, and often five and a half inches across. The calyx has tufts of small foliage which surround the opening bud, giving a very pretty effect. A growth of seven feet in a season is not unusual for the new shoots to make.

Baroness Rothschild is a rose of the aristocratic sort, perfect in form and pure in color, which is a deep pink or light rose. It is the shape of a shallow cup, and every petal is disposed with almost mathematical precision. Many think it the most beautiful rose grown, while others regard its formality as an objection. Its weak points are lack of odor and poor keeping qualities. Being difficult to propagate, it is always scarce and high in the market, and so is not so extensively grown as it would otherwise be.

Another superb rose of the same color is Madame Gabriel Luizet. The flowers are somewhat irregular in shape and the petals disposed with conspicuous informality, and yet with a peculiar grace that is really bewitching. To me there is no rose in this class more beautiful than this when grown at its best. Like the Baroness, it does not strike readily from cuttings, and hence is little grown—less than it deserves to be.

A good old rose is General Jacqueminot, so well known for its beautiful crimson buds and lovely open flower that little need be said in its praise. Everybody has or should have it in a rose-garden ever so small.

Fisher Holmes is not so well known, yet little if at all inferior to General Jacqueminot. The buds are not quite so fine, but the open flower is better, barring the color, which is just a little less brilliant, but it is more lasting. The plant is an excellent grower. It's a fine sort.

Gloire de Margott n is among our more recent acquisitions in the way of brilliant crimsons, and promises to rank first class. It is good in bud and in half-open and open flower, very sweet and productive. Its fault is lack of sufficient strength in the flower-stems to bear aloft their beautiful burden, and they droop. As a tall standard, this variety would be unexcelled.

Alfred Colomb is a light crimson rose, very double, very sweet and very perfect in form, not quite so formal as Baroness Rothschild, but none the worse for that. It is a fairly good bloomer, and grows well in most places if well cared for. This variety and Marshall P. Wilder and also Marie Baumann resemble each other so closely that the owner of a small collection having one would not need either of the others.

Few crimson roses are possessed of more real loveliness than Ulrich Brunner. It is a child of Paul Neyron. The plant is a close duplicate of the parent, but the flower, while quite large, has none of the coarseness of Neyron, but is chaste, refined and exceedingly fair to look upon.

Of a somewhat deeper shade of crimson are S. Reynolds Hole and Jean Lelievre, two beautiful creations for which we ought to be thankful if we are not. The former does well with us, but others complain that it seems always ailing. The latter is robust and as beautiful as it is strong.

Roses of a dark maroon are apt to burn in the sun and become a dull black. They should consequently occupy positions of at least partial protection. Baron de Bonstetten, Abel Carriere, Jean Liabaud and Prince Camille de Rohan are all good sorts. A little lighter in color and less liable to injury in the sun are Earl Dufferin, a new sort, and Duc de Cazes, which has the peculiarity of being dark in the middle of the flower while a few of the outer rows of petals are of a distinctly lighter shade.

The most satisfactory roses for the Pacific coast are those of the ever-blooming family, of which the teas (*Rosa Indica Odorata*) form the most important division. This group, now the most extensive in cultivation, owes its origin to two varieties—the Blush Tea and Yellow Tea, introduced into England from China in the early part of this century. The common name comes from the resemblance of the odor of the flowers to that of a fine quality of tea. Unlike the Hybrid Perpetuals that run up through all the shades of red to the most intense crimson and maroon with no yellows, the teas, in their purity, have no crimsons, the nearest approach being a tawny pink or bronze rose such as is found in Comtesse Riza du Parc, Madame Lambard and Baron de St. Triviers. True, several roses have been sent out as teas like Papa Gontier, a light crimson, and Princess Sagan, a most intense and brilliant maroon; but these are beyond question hybrids, with some of the crimson Bengals as pollen parents. Yellows and pinks are the prevailing colors of the teas.

Madam Lambard is one of the best known teas, of a tawny rose color usually, though sometimes it comes a light pink. It is fine both in bud and open flower, a good, healthy grower and every way desirable.

Comtesse Riza du Parc is a stalwart grower and very good in spring and autumn. In summer its somewhat irregular flowers, much the color of Madame Lambard, are apt to burn and become abortive. A fine bunch of Riza du Parc, with its shining bronzy foliage, is a buoquet fit for a queen.

Baron de St. Triviers, in color a little lighter than the foregoing and similar in manner of growth, is one of the roses that always gives satisfaction. It is particularly good in bud and in the spring the open flowers are full and exceedingly fine, but in summer and autumn they are but semidouble. It blooms with great freedom and almost continuously.

One of the very best roses of any sort is Catherine Mermet. The color is a peculiarly beautiful shade of pink, and the form of the bud and half open flower is beautiful beyond description. It must be seen in its integrity to be fully appreciated. As a grower it is fairly vigorous and healthy. It is apt to bloom in crops, resting between.

Bougere is a fine old rose, a good deal in the way of Mermet, but it is little disparagement to say that it is also a good deal inferior. Bougere is a very profuse bloomer early in the season but rather shy in summer and autumn. The flowers are borne on long stems fine for cutting.

There is a considerable section of the teas, pink of various shades in color, and in shape nearly globular. Being but semidouble they are at their best in the bud or half open state. Of this section Duchesse de Brabant (known as Comtesse de la Barthe) may be taken as the type. They are all good growers and all beautiful and desirable.

Some are finer than the Duchesse but none bloom so freely and continuously, unless it be Madame Joseph Schwartz, one of her children, which, by the way, is usually described as a white rose, but at its best there is always present shadings of pink. In addition to the foregoing we place in this section Charles Rovolli, Souvenir de Madame Pernet, Sunrise (local name) and President (known also as Adam). Somewhat resembling this group, but of more spreading form of flower, are Souvenir d'un Ami and Madame Jure. The latter has rather too loose a flower, but is very chaste and pretty and blooms with a freedom and continuity unexcelled by any. It deserves to be better known.

Laurette is the most stalwart bush rose of which I have any knowledge. It may easily be trained into tree form and will make a bush eight feet high with a stem two and a half or three inches in diameter in four or five years from planting. It is a good bloomer too, and its flowers are fully up to the average in quality. The color is creamy white with pink edgings and sometimes mottlings on the petals. Splendid for a lawn.

Rubens is a rose exceedingly fine in bud and good in open flower, but is rather shy of her charms after the spring blooming. The color is a very light shade of pink.

Marie Van Houtte is a rose that never fails to please and satisfy. The buds are light yellow—almost white—with crimson shadings, and the fully-developed flower somewhat cupped in shape, the petals being gracefully but not formally disposed. In the center it is pale yellow or salmon, shading up to crimson at the outer edge. This sort, by being grown in partial shade, readily develops into a climber.

Somewhat in the way of Marie Van Houtte are Princess of Wales and Susanna Schultheis. The former is fuller in flower but not so free in bloom, and the latter more nearly single, but a profuse producer of very fine buds, making it good for commercial purposes especially. Of the three, in a small collection, Marie Van Houtte is to be preferred.

Madame Cusin is fine when grown under glass, its pearly petals being edged with purest crimson, but it is not so satisfactory out of doors. The same may be said of Madame de Watteville, and yet, under favorable outdoor conditions they are both ravishing in their beauty.

A somewhat fancy rose is Marquise de Viviens. The flower is loose and informal, but half-way down the petals reach a shade of pink that began at the outer extremity of each with crimson. The center being white and the shading very pure in color, the effect is delightful. A bunch of Marquise roses is hard to excel in real artistic beauty.

There are not many white teas of real excellence. However, we have in The Bride the best white of any sort. It is a sport from Catherine Mermet and is a close copy in all but color. Sometimes it comes pure white, but usually pinks a little on the extremities of the petals, not to its injury in appearance, but only to its quality as a white rose.

Miss Edith Gifford would be a good white only that it has a pink or buff tinge in the center; and Cornelia Cook would be another only for a tinge of green and a confirmed disposition to perish in the bud. Marcelin Roda is better, though a little green also. Bella is white and fairly good. Madame Joseph Schwartz is very good, but is a very light pink instead of white. Best of all, next to Bride, however, is Niphetos. The full-blown flower is too open but the buds cannot be excelled by even The Bride. Devoniensis should have been mentioned before. It is a real beauty but rather poor as a grower, and a shy bloomer. The climber's variety is particularly excellent—when you get it. It may be well to say here that Marie Guillot, a rose of much repute elsewhere, is of no value here. The buds are poor, and not one in fifty can be induced to open.

(*Concluded next week.*)

Petals of a Chrysanthemum.

At the last regular meeting of the California State Floral Society, the Sherwood Hall Nursery Company reported the result of the chrysanthemum guessing contest, at the recent fall exhibition, in wh ch two prizes of $50 and $25 were offered to the person guessing nearest the number of petals in a large "prince" bloom. Says the report:

"There were 3786 ballots cast. The estimates of petals ranged all the way from 126 to 40,000. The actual number of petals was 512. Guesses above 2000 were very numerous, and those below 600 were greatly in the minority. Well-known florists who tried their hand showed a depressing familiarity. Mrs. M. B Russ, 6 Columbia square, Mrs. C. E. Sparrowe, 531 Alvarado street, Mr. C. Redecher, 612 Bush street, and Master Willie Bennett, Protestant Orphan Asylum, were the successful contestants. The $50 prize was divided among the three first named, and the $25 prize went to Master Bennett. Not the least noteworthy result of the contest was the information that 376 guesses gave that they possessed gardens. Of this number, 265 are in this city, and 111 in the suburbs. Doubtless there were many who failed to state the fact, probably as many more, so it is reasonable to suppose that certainly from 700 to 1000 visitors to your exhibition not only possess gardens, but, judging from their interest in visiting the show, are themselves workers in their gardens and lovers of floriculture and horticulture."

The Viticultural Exhibit.

The State Viticultural Commission held its semi-annual meeting in San Francisco Monday, and decided to oppose the passage of what is known as the Raines bill, now before Congress, and, if necessary, to send a representative on to Washington for that purpose. The commissioners contend that, should the bill be passed by Congress, the country will be flooded with cheap and impure wines. One of the sections of the bill provides that any sweet-wine maker can fortify his wines with brandy free of the internal revenue tax, provided that not more than four per cent of sugar is contained therein, and also that when the wine is fortified it does not contain more than 24 per cent of alcohol.

The commissioners also addressed an open letter to the California World's Fair Commissioners, calling them severely to account for allotting the viticulturists only 728 square feet of space, out of a total of 60,000 in the California building, in which to make an exhibit. The viticulturists had asked for one-fifth the available space, representing that the wine industry is one of the most important in the State, and that viticulturists pay a total of one-fifth the taxes. The commission intimated that unless very much larger space were granted, no wine exhibit would be made at the fair.

A Handy Vine Puller.

PENRYN, Dec. 10 1892.

TO THE EDITOR:—I notice that in your last number you state that you have published handy arrangements for pulling out vines. I do not remember them, and perhaps others would like to have them repeated. ALFRED BENHAM.

The following, described by R. E. Wood of Napa county, seems well suited to the purpose: It is nothing more than the back running-gear of a common lumber wagon, including the reach, for a lever, and two short pieces of log-chain, say about two feet in length, with hook in one end and ring in the other. Lightly nail or tie a strip of inch board on top of the bolster, and another on the outside to protect the paint, then loop one piece of the chain about the reach inside the axletree, bring the loose end over to hang behind. One man now raises up the front end of the reach, another loops the ring of short chain No. 2 over the the stump of the vine to be taken out, and places the hook in the link of the chain on the wagon, high up as possible. Bring down the lever and hook up the chain two or three times and the job is done. I saw vines taken out at the rate of more than one a minute by this simple process.

Reported Deal in Lima Beans.

NEW YORK, Dec. 12.—For about a week or ten days past there have been signs of something in the nature of a "big deal" in dried California Lima beans. As the story goes, three different combinations were quietly laying their pipes, with the majority calculating u on doing something out of the ordinary line before the first of February. The minority, in which a live Californian and a wide-awake New York broker figure as the leading spirits, seem to have taken time by the forelock and outgeneraled the majority. In any event, a certain amount of substantial fact and considerable strong circumstantial evidence go to show that a large percentage of the crop of the season of 1892 has been placed under contract, and nearly all the beans involved in the deal will pass directly into the hands of distributers well acquainted with the position of the market from the visible supply to the almost certain outlets during the next ten mon hs. The facts picked up do not warrant the statement that the market is "cornered," nor does it appear that there is any intention of making a gold mine out of a bean deal, but that the supplies have been pretty well concentrated is more than a vague possibility.

FAIR AT PORTERVILLE.—The Horticultural Society, comprising the district of Fresno, Tulare and Kern counties, has decided to hold a citrus fair at Porterville, beginning December 29th. It is the first attempt of the society to hold such a fair. Much interest has been manifested, and it seems certain that the fair will be an entire success, as it ought to be.

HORTICULTURE.

Strawberries and Their Cultivation.

GRIZZLY FLATS, CAL., Nov. 30, 1892.

TO THE EDITOR:—Before planting a new patch of strawberries, the ground should be well enriched, with a good application of manure, or some good fertilizer, and thoroughly plowed and harrowed. The rows should be about four feet apart; plants set about 18 inches apart; the ground should be thoroughly pressed around each plant, and plants should be set down in the earth, even with their crowns. If you live in a country where irrigation is not practiced, and intend setting out a large field, the ground should be well rolled with a good roller after the plants are set out; but if irrigation is practiced, the plants should be trenched in, so that they can be irrigated. If plants are received from a distance, unwrap them, and if there are too many plants to be set out in a day, puddle the roots in a mixture of very thick mud and water, and then place away in the cellar, and they will keep safely for several days. Never dump plants that have been sent from a distance, into a tub of water when you receive them, as it will invariably kill them. Follow the above method and you will be all right.

When your strawberry plants get to growing, look out for weeds; keep them out as much as possible; let all the first runners take hold and form young plants until the rows are about 12 inches wide. After they pass that limit they should always be cut off, unless you wish to raise a new lot of plants. If you plant the leading varieties of strawberries, have every fifth row a staminate sort, or perfect flowering. Many of the most valuable kinds of strawberries are pistillate sorts, and require a staminate sort near at hand to fertilize their blossoms. Staminate sorts are always self-fertilizing. About all the Alpine strawberries are perfect-flowering, and several superior varieties of the large strawberries are perfect-flowering, such as the Oregon Everbearing, Cumberland, Triumph, Capt. Jack, etc. Strawberries, where they can be irrigated, should have floods of water during their fruiting season.

In regard to the time of planting I should prefer spring planting, although strawberries in this climate can be safely transplanted any day of the year. In the hottest months they may be started successfully, if they are shaded and well watered for a short time—shaded for a couple of days and watered for about four hours. Many persons prefer August set plants, because the next season there is a crop of fruit; but there are many varieties of strawberries that commence blooming in a few weeks from the time of planting, and furnish part of a crop, even if planted in May, June or July. Of course, the climate has most to do with this; possibly in an eastern climate such a thing could not be done.

The varieties of strawberries determine the renewing of the beds. Thus, Alpine strawberries are good for several years, while the large varieties should be renewed every two or three years, that is, after two or three fruiting seasons. The first season is not generally counted. Nine-tenths of the people in America could raise strawberries if they only tried, and there is no other fruit that succeeds in such a diversity of soils and climates.

Strawberries are a better-paying crop than many varieties of larger fruits. According to the varieties planted, you can raise from 500 to 2000 quarts to the acre; and in California there are soils, climates and possibilities, that suggest that even 3000 quarts could be raised of the new and improved kinds.

The varieties mentioned below are not strictly new, but are the varieties that I think will pay best:

Haverland, a pistillate variety, an immense yielder, splendid shipper, well-colored, good size and fine flavor. This is the variety of strawberry that no person has given a bad report of. I should think it would do well in many portions of California.

Warfield No 2, a pistillate variety, is a very productive strawberry, and leads most all tried varieties. The fruit is a very beautiful, glossy red, long, conical in shape, a splendid flavor and good shipper; said to be the finest variety shipped to Chicago in any quantity last year. Seems to succeed well in all places. This variety of strawberry runs an even size, which is a great point in its favor. The plants are very vigorous in growth.

Gaudy—This is a very superior, late variety, a very large berry and large plant. The berries are somewhat conical in shape, are possessed of a delicious flavor and delicate aroma, said to be suggestive of both peaches and strawberries; is fairly productive and a perfect-flowering variety.

Parker Earle ranks first among all late varieties; berries highly colored with yellow seeds, berries very large and quality good; very productive. A staminate sort.

Oregon Everbearing is a splendid variety; succeeds best on clayey soil; furnishes an abundance of berries from May until the frost; berries large, deliciously flavored and a great shipper. This plant stands great extremes of heat and moisture. A staminate variety.

Honey strawberry, (Red Alpine) is an everbearing variety and furnishes an abundance of fruit all season long. Berries are a glowing red in color, exceedingly sweet and delicious in flavor; small to medium in size, for table use unrivalled.

Mill City, a California, wild Alpine strawberry; plant very vigorous; an everbearing variety; fruit very beautiful and highly colored, small to medium size; the finest flavored of all strawberries.

Unknown Variety, a wonderful strawberry cultivated in this country; it is a vigorous, powerful grower, with immense leaves and blossoms; the fruit is deliciously flavored and of very large size. It is oblong in shape, very firm, and would be an excellent shipper. It is an everbearing variety, and yields its immense berries until the frost comes, and would possibly yield all winter if the frost did not injure it. I shall send several plants to the experiment stations and have it thoroughly tested.

Red Bush Alpine and White Bush Alpine are strawberries destitute of runners. They are immensely prolific and fine flavored; a splendid variety for family use.

In raising strawberries by the acre for canneries and city markets, your pistillate varieties should predominate, and to insure direct pollenizing, you should plant some good staminate sort every fourth or fifth row. The Oregon Everbearing would be very good as a fertilizer.

S. L. WATKINS.

Premiums for the Citrus Fair.

The following is the complete premium list for the State Citrus Fair, to be held in the Mechanics' Pavilion, San Francisco, from January 10 to February 11, 1893:

CLASS I—COUNTY EXHIBIT.

Best display of citrus fruits.

First premium	$250 00
Second premium	200 00
Third premium	150 00
Fourth premium	100 00
Fifth premium	50 00
Total	$750 00

CLASS II—BUDDED ORANGES.

Best general display by producer.

First premium	$200 00
Second premium	150 00
Third premium	100 00
Fourth premium	75 00
Fifth premium	50 00
Sixth premium	40 00
Seventh premium	30 00
Eighth premium	20 00
Ninth premium	10 00
Tenth premium	5 00
Total	$680 00

CLASS III—BUDDED ORANGES.

Best 12 budded oranges grown by exhibitor.

First premium	$10 00
Second premium	9 00
Third premium	8 00
Fourth premium	7 00
Fifth premium	6 00
Sixth premium	5 00
Seventh premium	4 00
Eighth premium	3 00
Ninth premium	2 00
Tenth premium	1 00
Total	$55 00

CLASS IV—BUDDED ORANGES.

Best display standard boxes packed for market. Not less than five boxes.

First premium	$25 00
Second premium	20 00
Third premium	15 00
Total	$60 00

CLASS V—SEEDLING ORANGES.

Best general display by producer.

First premium	$150 00
Second premium	100 00
Third premium	75 00
Fourth premium	60 00
Fifth premium	40 00
Sixth premium	30 00
Seventh premium	25 00
Eighth premium	20 00
Ninth premium	10 00
Tenth premium	5 00
Total	$515 00

CLASS VI—SEEDLING ORANGES.

Best 12 seedling oranges grown by exhibitor.

First premium	$10 00
Second premium	9 00
Third premium	8 00
Fourth premium	7 00
Fifth premium	6 00
Sixth premium	5 00
Seventh premium	4 00
Eighth premium	3 00
Ninth premium	2 00
Tenth premium	1 00
Total	$55 00

CLASS VII—SEEDLING ORANGES,

Best display standard boxes packed for market.

First premium	$25 00
Second premium	20 00
Third premium	15 00
Total	$60 00

CLASS VIII—LEMONS.

Best display by producer.

First premium	$50 00
Second premium	35 00
Third premium	25 00
Fourth premium	15 00
Fifth premium	10 00
Total	$135 00

THE FIELD.

The Hop Market.

A Santa Rosa *Republican* reporter had an interview with one of Sonoma county's leading hop-producers, recently, The hop market, prevailing prices, the outlook for better figures, shipping, etc., were discussed at considerable length. The gentleman is well up in his business, and, being assured that his name would not be divulged, talked with reservation.

"The prevailing price for hops here, if it can be said there is any such a thing," said he, "is about 20 cents per pound, but the newspaper quotations hardly justify that figure; and it takes a good article to bring that. For some reason the market is devoid of much life this year."

In regard to a report that the hopbuyers here had combined, pooled, or are "standing in," the gentlemen said he could not say that the report was true, but there is certainly ground upon which to construct such a suspicion. The fact that the buyers do not bid against each other gives rise to such an apprehension. It would only be in harmony with the spirit of the times to suspect such a condition of affairs.

The question was asked if it does not pay to ship hops direct to the London market. The hopgrower said that from what he had learned from those who had recently shipped there, he thinks it must pay and pay very well. One grower who lives here shipped 66 bales to London through the agency of Flint of Sacramento, and the hops there sold for 29 cents per pound, and they were not of the very finest quality, either. They would have brought about 20 cents per pound had they been sold here.

In regard to whether it is safe to ship to London as a general thing, the gentleman said he could not say. The hopbuyers here tell us that the reason they cannot pay more here for the crop is on account of the uncertainty of selling they encounter in shipping to London. For instance, it is claimed that they cannot afford to pay 25 cents here, lest by the time the hops get to London the buyers there may not want them at figures that will pay for shipping, or may not want them at all. Buyers there, they say, prefer to buy on sight, and would rather do that than buy on future delivery. There is no doubt, said the gentleman, that it pays to ship to London, if one can sell the hops when they get there. One man, who had an inferior quality of hops, for which he could not get more than 18 cents per pound for them here, in London received 23 cents per pound for them. He says that growers here hesitated to ship there before, but that they will ship in large quantities from this on. They are shipped by rail to New York and from there go to England in the big Atlantic steamships.

Alfalfa in Hay Fork Valley, Trinity County.

LARRIBEE, HUMBOLDT CO., Dec. 5, 1862.

TO THE EDITOR:—Hay Fork is an old mining town situated on the north side of a valley of the same name. Just below the town the river forks, so that in high water the valley is quite badly overflowed.

There is a gristmill in the place, and as the freight on all the flour hauled there is $30 per ton, Hay Fork flour commands a ready sale at home.

All the fertile bottom land in this section is sown in grain, and is either cut for hay or threshed. This leaves the upper foothill land on the ranchers' hands. This section is all cut up with mining ditches and huge caves in the side of the mountain where the hardy miner dug for gold. In many places the mines have ceased to pay, leaving the water ditches still in good order. The miner turned farmer; from hydraulicking he became an irrigationist.

One has to see this section to form a good idea of the barrenness of the side hills; where it is not a solid mass of rocks, it looks as though there is not soil enough to grow anything profitably. Where I thought no vegetation would prosper, I found fine fields of alfalfa, and irrigated by water formerly used to seek the precious metal.

About 20 pounds of seed is used to sow an acre of alfalfa, and as the weather becomes very hot here in summer, vast quantities of water are licked up by the hot ground and nearly famished alfalfa stalks. This alfalfa is no better than in many places where it is sown on rich valley bottoms, though nearly as much is being cut per acre as any I have ever seen; but see the difficulties they work under. They grow a good crop on ground that in a fertile section one would hardly pay taxes on for the privilege of pasturing, let alone cultivating. The day of free grass is nearly a thing of the past for California, and there is many a stock-ranch that is running on the same as before the land was surveyed. Something must be done to conform with the change of value in the lands; and many a locality can take a profitable lesson from the farmers of Hay Fork, who are making the most of their opportunities.

ED ROBERTSON.

MRS. HARRIET W. R. STRONG has made quite a financial success raising pampas plumes on her ranch in Whittier, Los Angeles county. Here she has a place of 220 acres, of which 150 acres are set out in walnut trees. Between the rows of these the pampas plumes are grown. Before Mrs. Strong went into the business the plumes which were sold throughout the world came from South America, and while people admired their graceful beauty they were very unsatisfactory for ornamental purposes, owing to the fact that the feathery plumage soon dropped off. It was not until Mrs. Strong began raising them on a large scale that a successful effort was made to find some means of obviating this. To Mrs. Joseph Sexton of Santa Barbara is due the credit of first discovering the curing and preserving process which is now in successful use. As it is now, when the plumes leave Mrs. Strong's curing establishment they have been so treated that they may be handled, practically without danger or injury. From the very beginning of her operations Mrs. Strong has been very successful in finding a market for her wares in Europe, and the special object of her efforts just at present is to increase the American demand. In this she is meeting with encouraging success. Last year Mrs. Strong raised 2,000,000 plumes, the crop during the present season being 1,750,000. Of these 100,000 were sold in this country for use during the campaign, and 650,000 were disposed of in Europe. The remaining 1,000,000 were reserved for use at the World's Fair, 10,000 being needed for the interior decoration of the California building alone.

THE DAIRY.

A California Holstein-Friesian Record.

EDNA, SAN LUIS OBISPO COUNTY, Nov. 29.

TO THE EDITOR:—Enclosed find a schedule from the record of my Holstein herd, made up after the form of the English Shorthorn herd published in the RURAL PRESS of Nov. 19. The first six numbers were imported from Holland in calf and dropped their first calves on my ranch. The others I either bought at the Underhill dispersion sale or raised. All are thoroughbred and registered except No. 23. She was from the Coots herd and claimed to be thoroughbred. I wish to call your attention particularly to the record of this cow, as an illustration of what feeding will do for a cow four years old when the feeding was commenced. Also to the records of Nos. 6 and 4 in two-year-old form; and of No. 21.

MILK REGISTER OF HOLSTEIN-FRIESIAN COWS OWNED BY E. W. STEELE OF SAN LUIS OBISPO COUNTY.

Number.	First Calf. Days.	First Calf. Lbs. Milk.	Second Calf. Days.	Second Calf. Lbs. Milk.	Third Calf. Days.	Third Calf. Lbs. Milk.	Fourth Calf. Days.	Fourth Calf. Lbs. Milk.	Fifth Calf. Days.	Fifth Calf. Lbs. Milk.	Sixth Calf. Days.	Sixth Calf. Lbs. Milk.	Seventh Calf. Days.	Seventh Calf. Lbs. Milk.	Name.
1	318	7,936½	299	13,133½	293	12,480½	276	14,288½	470	19,628	305	16,035½			Mable of Pacific, 625 H. B., 990 A. R.
2	344	7,840	328	13,480	260	11,702½	255	10,678	288	11,055½	304	10,982½			Katie of Pacific, 624 H. F., 989 A. R.
3	323	9,300½	297	11,461	304	12,587	260	8,050	270	9,844	314	11,674			Alice of Pacific, 621 H. F., 991 A. R.
4	358	10,223½	442	12,504	307	12,234½	274	10,722	65	2,648½	335	9,378½			Lucy of Pacific, 623 H. F., 988 A. R.
5	301	9,800	381	15,772	289	15,142	264	11,976½	269	13,170	272	14,776			Bell of Pacific, 627 H. F., 986 A. R.
6	461	14,708½	366	18,104	365	18,764	328	13,845	363	12,074					Queen of Pacific, 626 H. F., 987 A. R.
7	378	8,650½	256	9,146	327	9,355½	256	10,108							Lucy of Corral de Piedra, 6,703 H. F.
8	396	6,056½	300	7,336½	325	7,359	304	10,905							Queen of Corral de Piedra, 5,936 H. F.
9	268	6,682½	386	7,609½	229	6,788½	247	6,184½							Chrystina, 4,021 H. F.
10	241	5,469	237	8,110	233	6,639½	349	7,777½							Oulane Bell, 3,110 H. F.
11	276	8,351	327	10,454	307	12,069½	221	4,550½							Wisahickon, 4,016 H. F.
12	391	8,156½	263	7,187½	247	7,212½									Domingo's Mable of Pacific, 13,668 H. F.
13	377	7,084	206	5,085	230	10,599½									Paterson's Lucy of Pacific, 13,666 H. F.
14	447	12,250	268	8,633	220	10,639									Brunette of Pacific, 628 H. F.
15	296	4,657½	258	8,408½											Lakeside's Pet Idaline, 13,670 H. F.
16	320	6,885	545	13,285½											Domingo's Mable, 13,671 H. F.
17	391	9,284½													Omaha's Lucy of Pacific 13,674 H. F.
18	417	13,436													Omaha's Domingo's Mable, 16,890 H. F.
19	402	10,271½													Duke of Obispo's Mable of Pac., 16,891 H. F.
20	248	5,234½													Artis Carisa's Lady, 16,892 H. F.
21			274	8,719½	295	14,640	281	13,648	411	24,363					Artis Carisa, 7,798 H.
22					272	6,717	264	12,084							Lakeside Pet, 9993 H.
23					290	8,686½	247	7,742½	372	11,812	509	17,064	270	10,211	From Coots' herd.
24															Posnor's Matilda of Pacific, 6,881 H. F.
25															Omaha's Chrystina, 13,672 H. F.
Averages.	355	8,940	356	10,433	291	10,721	289	10,183	301	13,092	396	13,218	270	10,211	

Nearly all the balance of these cows have been examined and have made the necessary record for advanced registry.

Where are the English cows beside this showing?

E. W. STEELE.

What Is a Good Cow Worth?

The cow, says *Hoard's Dairyman*, that makes 500 pounds of butter in a year is worth fully $500 as an investment; for her calf, if well-sired, is worth all it costs to keep the mother a year.

On the above the *National Stockman* comments as follows: At first glance it might seem that this is not true, but when we to inquire into the business we find that it is true, that as a business investment a cow that will make 500 pounds of butter in a year is worth $500. The butter at the low average price of 25 cents a pound would be worth $125, or at 30 cents it would be worth $150. Five hundred pounds is about the yield of four scrub cows, and you have only one cow to feed, milk and care for generally. Of course she will eat a lot of feed, but that is no objection at all; in dairying we use cows to convert food into milk. As there is just so much butter in a bushel of feed, if we can get it out more profitably by feeding it to one cow instead of three or four, we make that much gain, because in one case we have only one cow to supply with the life ration, while in the other we have three or four.

And there is one other point to which we wish to call attention, that if we had a few extra good cows instead of a large lot of average ones, the risk of loss is less by the various diseases to which cows are subject. If we only have ten good cows the losses would in all probability be less in proportion than if we have 20 or 30 average cows, for we could—and no doubt would—give the ten good cows more personal attention than the larger lot of the others; it holds good in all cases that we give better care to that which pays us best.

To go back; while we would not advise the purchase of cows for dairy work at $500 per head (though a 500-pound cow is worth it), yet we would advise the purchase of extra good cows at an extra price rather than to buy average cows at an average price.

THE STOCK YARD.

"Who Has a White Bull?"

Written for the RURAL PRESS.

Such is the heading of an editorial in the *Breeders' Gazette*, which says: "This is such an extraordinary 'want' in this country that we give it this prominence in the hope that a calf or young bull of good form and of the much-despised color can be found."

Has it then come to this that the puerile practice of breeding for all-red animals has been carried to such an extent that an animal of a well-recognized and original color in Shorthorns is so hard to find that one of the leading papers of America, devoted to the interests of breeding, should think it worth while to devote a half column of its most valuable space to the subject in order to call the attention of its readers to such an "extraordinary want?"

Is not the craze for using nothing but *red bulls*, by which so much harm has been done in almost countless herds, on the wane yet? If not, it ought to be by this time—at any rate, by all breeders who take an interest in the general welfare and improvement of Shorthorns, and through them, the beef cattle of almost the whole country. All who have taken an interest in the reports of cattle at the different State Fairs throughout the country cannot but have noticed that the principal winners of the best prizes were *roans*, more so, however, in England than in America; and where were your roans without the white?

The white bull wanted, it is true, if found, is to cross upon black-polled cows, with a view to producing a superior class of beef animals—a cross which stands second to none in the production of such, and in regard to which the *Gazette* says: "We are sufficiently interested in the idea to do the necessary advertising in the matter, and in this public way, simply because it brings forward a point in cattle-breeding that we have often thought might be well worth serious consideration at the hands of our readers. 'It's all well enough to talk about it,' one may say, 'but where is your white bull?' If there are any good ones in the country to which the knife has not been applied, we shall be pleased to hear about them."

Well, there are three or four that we know of in California; and what is more, at least two of them are by a roan bull and out of white cows, sired by a white bull that was well-known, locally, as a good stock-getter and for the improvement he made in the herd in which he was used for several years.

The above-named cows are not by any means "despised" on account of their color; but, as if in spite of it, being of of a useful sort, are much esteemed by their present owners for their real worth, both as regular and good breeders and for the milk they give.

Progressive Breeding.

Written for the RURAL PRESS.

There never was a time when the difference in price between choice steers and common beef cattle was greater, if so great as at the present time, or the proportion of choice cattle to scrubs so small, and the worst of it is, the gap is continually widening, so that the great centers of trade are literally flooded with scrub stock.

The fact is easily accounted for. Cattle have been comparatively low for a number of years, and for that reason the majority of breeders of either beef or dairy cattle have not thought it worth their while to invest the little extra money required to make the difference between buying a good bull and a scrub.

They have thus been breeding down instead of breeding up, forgetful of the fact that well bred animals make a more profitable use of food consumed than do the scrubs.

When the latter class come to market, generally an overcrowded one, the seller is at the mercy of the buyer, in a great measure, while of the choice and choicest classes there is seldom enough to supply the demand, so that, within reasonable bounds, the seller who has the "tops" is in a position to make the price.

The same applies to dairy stock. Let any one start out to buy 20 or 30 head of choice milch cows and he will soon find that they are very scarce, and, when found, they are worth twice the price of the average class of fresh cows that come to the city markets.

In breeding good cattle there is a double gain, as compared with the common sorts. They make a greater number of pounds of beef on the same feed, and the beef brings a better price—more pounds and more cents per pound is what it comes to; therefore, all who are breeding cattle should interest themselves in breeding up, keep better cattle, if fewer of them, and thus each one can help to stop the downward course which is so easily followed.

There is no such thing as a standstill in breeding. Either the cattle are growing better or they are growing worse. Let each one pause and ask, Am I breeding up, or breeding down? Are my cattle getting better or worse? It is one or the other. If worse, stop it now, and take the first step forward by weeding out and getting rid of the scalawags—every one of them, at any price they will bring—then use good bulls on the best cows, raise the calves well and keep on raising them well as long as they will grow. Feed up as well as breed up and success is assured. Breed without feed does not improve a man's cattle. The two must go together.

There is more truth than most people give credit for in the saying that "feed is half the breed," else how come the early maturity, the heavy weights as compared with age; also, the large yields of milk and butter that are produced by single animals, in all of which *feed* must be the moving power, as it were.

The man who is a judge of cattle, a good feeder and manager, can, to a certain extent, make light of pedigree, for at all times his good feeding will bring out his well-selected steers in such shape that they will command top prices in the market. Or, if a dairyman, he will so breed and feed that his cows will be in profit for the greater part of the year, producing all they can be reasonably made to give in milk, which, in turn, will be disposed of to the best advantage. Such a man would be successful as a breeder of thoroughbreds and make good cattle, not altogether by his good feeding, but through that, added to good breeding, would leave far behind the poor feeder, though he might have the best bred cattle in the world. These, for want of good feeding, would lack proper development of the finer and more valuable parts, and in consequence would become unfitted for transmitting to posterity those valuable qualities most sought after by all breeders of useful and profitable cattle, with or without pedigrees. Pedigree of itself does not make cattle valuable. To be valuable they must be good. Pure-bred cattle neglected and poorly fed will, like any others so treated, swiftly come to naught. They stand in the way of progress.

A Government Cattle Book.

A report on Diseases of Cattle, prepared under the direction of Dr. D. E. Salmon, chief of the Bureau of Animal Industry, of the U. S. Department of Agriculture, is about ready to issue from the press. It contains 19 chapters, and like the horse book, is made up of articles prepared by the leading members of the veterinary profession in this country, including many of those who contributed to the report on Diseases of the Horse. Among those contributing to the present volume are Drs. Murray, Harbaugh, Lowe, Law, Trumbower, Salmon and Smith, and Prof. W. A. Henry, of Wisconsin. Among the contributions there are also articles by the late Drs. William Dickson and V. T. Atkinson.

Dr. Law's contributions cover diseases of the urinary organs and the generative organs, also diseases following parturition, and the diseases of young calves. Drs. Salmon and Smith have a report on infectious diseases, while Prof. Henry is represented by an article upon the the feeding and management of cattle. Other chapters treat of the administering of medicines, of diseases of the digestive organs, poisons and poisoning, diseases of the heart and blood vessels, noncontagious diseases of the organs of respiration and diseases of the nervous system, bone diseases and accidents, surgical operations, tumors, diseases of the skin, of the foot, and of the eye and ear.

The general design of the work is to fill the same place with reference to cattle that the report on the Diseases of the Horse does in regard to horses. The volume consists of 496 pages and contains 44 full-page illustrations. Our stockmen should apply at once for a copy, addressing Hon J. M. Rusk, Secretary of Agriculture, Washington, D C.

SHEEP AND WOOL.

First Sheep in Humboldt County.

LARRIBEE, Dec. 8, 1892.

TO THE EDITOR:—The first sheep were driven to this country by Mr. G. W. Jackson and H. C. Houson. Both had been engaged in the sheep business on shares in Sacramento valley, and during the dry season of 1864 they both started for Humboldt, where the grass was midside to a horse. Mr. Jackson had 2000 head, owning 700, the balance on shares, while Mr. Houson had 2700 head. They took them to the south side of Van Duzen river, at a place where Fort Baker was shortly after built. Thus was started the Fort Baker ranch now owned by Messrs. Russ & Porter. Mr. Houson, now a resident of Hydesville, retired several years ago. Mr. Jackson bought a squatter right to a range at Spruce Grove, and took his sheep there. Spruce Grove is high land, being the watershed between main Eel river and South fork of Eel river, and now the locality is known as Harris' P. O. on the overland road.

Jackson's sheep were sheared in Sacramento valley in March, and as there was no way to pack or haul out the wool, they were not shorn that fall. The feed was up midside to a horse, all over the range, and it was reported that the snow did not lie to any depth. That winter, it was a stem-winder, the snow lying deep all over the ground. The sheep were driven down to Woodman's ranch on Eel river at Fort Seward, and there they cut browse and lost very few sheep during a heavy snow storm, as the sheep kept fat. Then there came a heavy, continued rain, and the wet and weighty fleeces were too much for them, and out of the 2000 head, Mr. Jackson returned to Sacramento valley the

following August with 1200. Since then nearly every one has been shorn twice a year in this county. These sheep were shorn three months earlier the spring before being taken over here, than the usual spring shearing, and the extra hard winter, and the sheep not being acclimated all combined to augment the loss.

This was the beginning of the sheep business here, for cattle were grazed nearly exclusively at first, then sheep took their places, and during the last three or four years the number of ranges devoted to cattle is slowly increasing, but there are some signs of a reaction in favor of sheep again, but so far there has been only an expression of opinion. Several advocate the idea, but none seem to be willing to back their own judgment, and sell off a part or all their cattle and invest in sheep. Now that the election is a thing of the past and the platform of the winning party has a tendency to admitting wool from Australia to compete with the wool grown here, there is an impression that there will be enough wool sent here with only the freight added over the original cost in Australia, and of a quality that does not compete with any wool grown here. The Democrats' idea is, as I understand it, "two qualities of wool are required by manufacturers; one our people can produce, the other we cannot; by admitting that needed quality of wool which we cannot produce in the United States free of duty, the manufacturer is put on an equal footing, as far as raw material is concerned," and Yankee ingenuity will make up the gap between what is paid factory hands here and in competing countries.

The minority hold that in the price of wool as in the price of most everything else, the rule that competition lessens the selling price still holds good.

When sheep were first taken to this county, the price of wool was very high and the price of mutton fair. The price of wool has been decreasing from time to time, though there has not been any great change in mutton.

But then a squatter's right held a range, and this right was only worth a few hundred dollars more than the cost of improvements. Now the land has long been surveyed, and the rancher has to obtain a title for the same or give up sheep-raising. It is the amount of money that has now to be invested in the stock business that has cut down the profits.

If as much stock could now be controlled with the same amount of capital, and "free grass" was again a reality, the rancher of northern California would again coin money.

ED. ROBERTSON.

Sheep Shearings.

Especially when on dry feed, sheep need a good supply of water.

To keep sheep healthy they require a frequent change of food.

Care should be taken to clean out the mangers of feed-racks frequently.

Look over the flock and sell the sheep that show the least improvement.

Inferior sheep are often a drug when good sheep sell readily at good prices.

Never allow sheep to be frightened or run by a dog, or in any way be disturbed.

If any of the ewes have poor teeth, it will always pay to feed them ground feed.

A sheep kept thrifty will shear a heavier and better fleece than one poorly kept.

In commencing to feed grain to sheep, feed a small quantity at first and gradually increase.

The farmer that is too careless to give sheep good care will do better with some other class of stock.

The days are for feeding and the nights are for refuse, and with no stock is this more the case than with sheep.

Sheep of different ages and conditions should be sorted into different lots and the weaker ones have a little better feed.

With comfortable surroundings, which implies dry, warm shelter and regular feeding, a small amount of grain can be made to count.

Wide sliding-doors are better for the sheepsheds, as it lessens the risks of slamming on them or of their injuring themselves by crowding in.—Live Stock Indicator.

THE APIARY.

Notes from the Oak Leaf Apiary.

GRIZZLY FLATS, CAL., Nov. 22, 1892.

TO THE EDITOR:—Our honeyflow from honeydew continued up to Nov. 21st, and now a heavy storm has commenced and may last many days. I think the honeyflow is now ended, and bees will cease work for two or three months.

Melissa, the oldest recognized honey plant in the world, does well here at Grizzly Flats. I have only a few plants, and could not state the quality of honey that it secretes; it is still blooming. To make a specialty of planting honey-producing plants, where the natural range is limited and sparse, I do not think will pay, unless it is a large field of alfalfa or clover. It is best to select a natural range, with enough indigenous nectar-secreting plants to make bee-keeping profitable.

I have a pretty fair range, but I like to try honey plants from different sections. All beekeepers should have a bed of spider flowers (*Cleome integrifolia*). It is a marvelously beautiful plant, with clear-cut foliage, with showy, brilliant, red flowers; each little flowerlet in early morning has a crystal drop of honey depending from it. This plant yields honey only early in the morning.

Prof. G. J. Cook, of the Michigan Agricultural College, in a late number of the *Bee Keepers' Review*, gave some interesting facts in regard to feeding pure cane sugar to produce honey. It seems that the best chemists cannot detect the difference between sugar honey and the natural product, and rank sugar honey, as equaling the best linden or clover honey, and at the same time call it honey. In the course of Prof. Cook's article, he states: "If, then, honey from this source is entirely wholesome, of which there can be no doubt, if it is so excellent that 40 persons engaged in the study of honey pronounce it honey, and excellent in quality, and if our best chemists class it with the best of honey from the choicest honey plants, does it not stand to reason that it can be, may be, and shall we say ought to be, a product with no tarnished fame or reputation? If, upon further investigation, it proves to be insipid and inferior, then it will be for the interest of beekeepers and the ones who produce it to see to it that no such article is produced and put into the market. If, as some of our best beekeepers believe, it is superior as a food for bees, may we not, from parity of reason, conclude that it ranks high as a table commodity?"

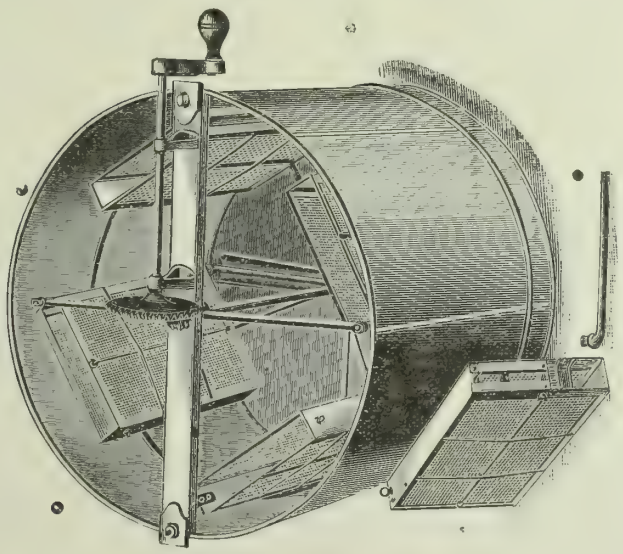
In answer, I will state that I think that there is no danger of cane-sugar honey gaining any ground in the honey market. I do not approve of feeding bees artificial food, and then selling such. For wintering bees, to keep them from starving, it is very advisable to feed sugar. Superior qualities of honey are produced in California cheaper than sugar can be bought, therefore California apiarists will never raise sugar honey.

Prof. Cook mentions the source from which many kinds of honey is gathered, such as the nectar from flowers, sweets from fungi; the different sources of honeydew, maple sap, etc., and states correctly that sugar honey is preferable and superior to many of these varieties of honey gathered from natural sources.

All admitted; but sugar honey raised for market would, I think, do more damage than good. If an apiarist raises sugar honey, sells it, and states to his customers that it is raised or produced rather by feeding bees pure cane sugar, there will be a number of unthinking and unreasonable persons who will cry fraud, adulteration, etc., and thus ruin the market for the pure article. I am not an alarmist by any means, but I think such would be the case.

The Government chemists seem to be considerably off the track, when they cannot detect sugar honey from that gathered from the natural source. When certain Government chemists tested several grades of honey, that they obtained of Chas. F. Muth, the Cincinnati honey merchant, and pronounced it adulterated, I think it was a mistake on the chemists' part in analyzing it. When it comes to adulterated honey, I don't think that there is as much on the market as a disinterested person would think.

The illustration below represents the Goold reversible honey-extractor; it will take either two or four frames. It has a positive motion, and all baskets are started at once. When one basket is reversed all are reversed.



GOOLD'S REVERSIBLE HONEY EXTRACTOR.

There are several styles of reversible honey-extractors on the market, and the trouble with most extractors is that they are too poorly made to give general satisfaction. The principle of a great many is all right, but the material that they are constructed of soon gives way and the machine is no good. A good and well-made honey-extractor ought to last 25 or 30 years. The Goold extractor shown above is pronounced a splendid machine.

Beesmokers: what kind is the best? Well, really I do not know, but I can tell you what one I like the best. I have tried several kinds, but I think the Hill beesmoker is the best of all. It has a swinging nozzle, and the draft is perfect. It is very easily lit, and easily agitated with one hand. It burns hardwood chunks without any special preparation. It is a smoker that will produce smoke, in vast quantities, at the right time. Still, I think that there is room for improvement upon the Hill smoker, even if I do think that it is the best on the American market. The Crane smoker, I believe, is a smoker combining the good principles of a hot and cold blast smoker. I learn that our friend Geo. W. Broadbeck, of Los Angeles, has lately patented a smoker. His principle is, "to produce a smoker of superior convenience and efficiency of operation, and which is interchangeably a hot and cold blast smoker."

I should be pleased to read or receive a report of the golden Italians and fine-banded Italian bees. What person in California has given them a thorough trial? Is not the common black bee as good as these light-colored Italians, or even better?

DURING the last three months, from within a radius of five miles of Whittier, Los Angeles Co., 2,000,000 pounds of English walnuts have been shipped, yielding an average of eight cents. The trees are all young and are not half-bearing.

TRACK AND HARM.

Racing of Two-Year-Olds.

The racing of the two-year-olds is very deceptive. Last year there was no colt in America of that age that could pick up 115 pounds and exercise His Highness. He won the great Futurity stakes in a canter, carrying 130 pounds and conceding 12 pounds to Huron, 15 to Yorkville Belle, 22 to Dagonet, 15 to Anna B. and three to Tammany. This year he starts out second choice for the Suburban and finishes nowhere. In all his stake engagements he runs like a butcher's hack, while Tammany, who never could beat him last year, turns out to be the crack of the season, and wins $107,000 in five races.

Hence I say to new turf beginners, do not base too much upon two-year-old performances. Tournament was only a fair colt at that age, but, in the following year, he was set down as the best of the season and had $84 000 to his credit. At two years old Luke Blackburn was a moderately good colt, but at three he could give every colt of his age in America ten pounds and a walloping. Mr. Ten Broeck's colt Umpire, by Lecompte out of the dam of Lexington, won three important two-year-old events, his owner pulling off about $85,000 on him besides the stakes. This made him the all-winter favorite for the Derby of 1860. When that race came off, Thormanby won, with the Wizard second and Umpire nowhere. The great American colt led for a mile, was in trouble at nine furlongs and died away completely at a mile and a quarter. This is only one of many cases that I could cite.

On the other hand, suppose young Mr. Miller, who is a very pleasant and affable gentleman, by the way, should sell his mare for $10,000, which is supposed to be nearly eight times what he gave for her—what would he do with the money? Could he go out and buy anything that has so far equaled her on public form? Not to my idea. He could probably take that amount of money and go out into the breeding farms and buy 12 to 15 handsome and well-bred yearlings for that sum; and then not have a single one of the dozen that could win from Charmion with 12 pounds' concession of weight. But when one is not a Haggin, a Belmont or a Macdonough, it is often safe to sell. Horses frequently die, but $20 pieces never throw out a curb.

So, just what Master Dan will do about it I cannot say. He may sell his mare for a big price, and he may hold on to her himself. She is his exclusive property and he can do as he likes. I believe it was Lord Londesborough who sold a good mare at a comparatively low price and was taken to task by some friends for having done so. His Lordship replied: "Well, I sold my mare and am sorry for it. At the same time it is better to sell a horse and be sorry than to keep a horse and be sorry." If every good two-year-old was a good performer at three, Mr. Miller's course would be very plain sailing. —Hidalgo in Los Angeles Herald.

Ignorance in Driving Horses.

A liveryman once told me that he would rather hire a certain horse to almost anyone than to a well-known minister of the gospel. The minister, he said, would not under any circumstances intentionally abuse the horse, yet in his ignorance of how a horse should be driven, and his absent-mindedness, he "took more starch out" of the animal than almost anyone who drove him. The horse, when driven by this man, invariably came in tired and nervous, worried more by the manner of driving than by the distance he had gone. Driving is an art that should be cultivated. Carelessness or ignorance is very destructive to the value of a horse. A young horse that has been driven any way—allowed to "slop" along in his own style—can with difficulty be made into a good, straight driver. A horse worried and made nervous and unsteady every time he is taken out can never be a first-class driving animal. Last summer I drove a nervy mare which had belonged to a young man who wanted to "get away" in great style, and who would use the whip and then hold the mare in to make her seem more "gay." Result is, for the first mile or so she nearly pulls your arms off, unless you want to go off at a lively clip and let her tire herself at the beginning of the ride. This summer I drove her again, and she had the same fault, and she always will have. I think that a practical lecture on the subject of driving, by an experienced and competent driver, would be a good feature in our institute work this coming winter. There are lots of people who need instruction in this line.—Exchange.

Horse Notes.

The trotting season in England has been very successful this year, and the interest in trotting races is increasing and will probably become the fashionable sport of that country, says the London *Sporting Life*. The pneumatic-tire sulky made its first appearance Sept. 16 h, and English drivers consider it far superior to the old-style sulky.

A novelty in the trotting line was introduced at the Lexington (Ky.) meeting. It was a race of nine furlongs, which was won by Honest George in 2:31¼. Dash races should become popular with owners and drivers, as the earning capacity of a horse is increased and his chances for breaking down less liable than where it takes five to seven heats to decide a race.

A remarkable feat has been accomplished by a horse in south Australia. He weighed 1100 pounds and drew a load weighing 17,025 pounds. He not only started the load from a standstill, but stopped once or twice to "blow out" and then started again. The road was not level, there being a rise of one foot in 153 which he had to go up. The

width of the wagon-tire on which this load was drawn was six inches.

Red Wilkes has now 87 standard performers, which places him at the head of all living sires. Nutwood is a close second with 85.

The two-mile record was broken by Nightingale by Mambrino King at Nashville. She made the distance in 4:32¼, lowering the record of 4:33 made by Fanny Witherspoon in 1885.

Nancy Hanks trotted a mile in 2:05 at the Nashville (Tenn.) meeting.

The stallion trotting records now stand as follows: Yearling, Athadon 2:27; two-year-old, Arion, 2:10¾; three-year-old, Arion 2:10½; four-year-old, Moquette 2:10; five-year-old, Kremlin 2:07¾. All except Arion and Kremlin belong to the Wilkes branch of the Hambletonian family.

The blinders or blinkers are the most useless and abominable parts of the harness. Why any one should want to cover up the most expressive and beautiful feature of a fine horse is hard to say. Where colts are properly trained there is no need for blinders, and, in fact, nearly all horses could go without them, and to good advantage.

The value of London carhorses is said to be greater per head than those in any city in the United States. They are bought at about $300 each, and sold at $50 to $60 each after five years' work. No company will buy a horse over seven years old.

Palo Alto's Roll of Honor.

The following is a complete list of all the horses, says the *Breeder and Sportsman*, that have entered the 2:30 list or lowered their records since Superintendent Frank Covey, John Phippen, James Nolan, Wm. Houser and John Cool have taken charge. The list is a most creditable one, considering the fact that all of the horses were sick, and many of them dangerously so, until the middle of August. Orrin A. Hickok, with the plough-horse Azote, achieved wonders, for that was the only one of the stock from Palo Alto that was not developed and given his record here:

2:30 PERFORMERS, 1892.

Azote, 6	2:14¼	Rowena, 2	2:17
Nenox, 4	2:25¾	Sweet Rose, 1	2:25¾
Vina Bella, 3	2:29⅛	Orphina, 3	2:19
Liska, 3	2:28¼	Bonnibel, 2	2:24½
Anselma, 7	2:29½	Sweetwater, 2	2:26
Wavelet, 7	2:28	Marie, 3	2:25
Paola, 5	2:28¾	Lilac, 3	2:29¼
Wild Bee, 4	2:29	Lent, 2	2:28
Advance, 3	2:22½	Ameer, 2	2:27
Monaco, 3	2:19½	Slight, 6	2:22⅛
Alfred, 12	2:25	Elma Sontag, 2	2:29
Elwina, 2	2:27½	Bessie Belle, 2	2:29¾
Peko, 3	2:24	Athena, 2	2:25¼
Elden, 3	2:19½	Loraneer, 2	2:26½
Donchka, 2	2:24	Cobwebs, 4	2:30
Avena, 2	2:19½		

2:20 AND 2:15 PERFORMERS.

Azote, 6	2:14¼	2:14¼	Elden, 3	2:19½	
Bernal, 5	2:17		Monaco, 3	2:19½	
Coral, 5	2:18½		Rowena, 2	2:17	
Truman, 4	2:12	2:12	Avena, 2	2:19½	
Orphina, 3	2:19				

RECORDS REDUCED, 1892.

Wild Bee, 4	2:30¼	2:29	Coral, 5	2:25	2:18½
Elleneer, 5	2:33¾	2:21¼	Rowena, 2	2:37	2:17
Helena, 3	2:29¾	2:21	Paola, 5	2:30	2:28¾
Bernal, 5	2:24	2:17	Langton, 5	2:26½	2:21¾
Truman, 4	2:22	2:12	Belle Bird, 2	2:26¼	2:22

AN IMPROVED HORSE STALL.—The following is a description of an improved horse stall, the merit of which consists in its simplicity. In the center of the stall—a large boxstall—a pit is dug 18 inches in diameter and three feet deep. Into this is put cobblestones three to five inches in diameter, until they reach the top. Three large, flat stones are placed over them, which just fill the top of the pit. A load of ground limestone is then spread around the outer edge of the stall and raked toward the center, giving it a gentle slope in this direction. Over this is spread two inches of yellow clay, which is well tamped. The stall when thus completed is like an oval dish, and carries all the urine to the center and into the pit, where it gradually soaks away. There being no opening in the bottom of the pit, no bad odor comes back into the stable, as so often is done when a drainpipe is used to carry off the urine. Another advantage of this stall is the shape, which more nearly fits the horse while lying down and requires less straw for bedding.

POULTRY YARD

A Remarkable Bird.

The following story, from the Bakersfield *Californian*, is given for what it is worth:

On the border of Tejon ranch, near the foothills, lives honest old Tim Hopkins, who cultivates a small piece of land, raises a few chickens and a number of hogs. Mr. Hopkins, a few days ago, killed several hogs, salting some and smoking others, and otherwise preparing his winter supplies.

For some time past he had been annoyed by the disappearance of a large number of his fowls during the night, but as the henhouse was always closed and no tracks of any animal to be seen in the vicinity, and the door of the house showed no signs of having been tampered with, he was sorely perplexed.

On Thanksgiving night he was aroused by a terrible commotion in the henhouse, and upon going to the door he was surprised and alarmed to see a large-winged creature rise up and soar away sky-high with a chicken in each claw.

"It was a devilish-looking thing, anyway," said Mr. Hopkins, "with a head like a snake and a long neck that wiggled through the air like a veritable serpent of sin, and the noise it made in rising from the ground sounded as if the winds of the earth were turned loose in that spot."

Early the following morning farmer Hopkins visited the henhouse and found the floor covered with broken eggs, and, as he remarked, "every blessed hen on the roosts had broken the record that night, and each hen had laid an egg and some roosters, too."

Being something of a philosopher, farmer Hopkins formed an idea that his hens had laid their last egg and straightway bundled them into the Bakersfield market, where he disposed of them at the regular market prices. Upon his return home, what was his amazement to find his smokehouse demolished and a large number of big rocks lying in the debris, but no sign of a smoked ham.

He retired to the house to ponder over the cause of his misfortune and devise some means to capture and kill the ungodly creature.

Full of these religious sentiments, he retired to his couch for a much-needed rest, which was rudely disturbed in the night by a terrible crash and the shaking of the cabin.

The bird had dropped a rock which crashed through the roof onto the kitchen stove, which broke into a thousand pieces.

Mr. Hopkins never stopped to seek further to estimate the amount of damage done, but struck out for John O. Miller's, where he arrived at daybreak, with his heart bowed down with troubles he soon made known to his friends, who have organized a plan to capture this bird at all hazards.

EXPERIMENTS IN KEEPING EGGS.—The eggs were all wiped when fresh with a rag saturated with some antiseptic and packed tightly in salt, bran, etc. Eggs packed during April and May in salt, and which had been wiped with cottonseed oil to which had been added boracic acid, kept from four to five months with a loss of nearly one-third, the quality of those saved not being good. Eggs packed in bran, after the same preliminary handling, were all spoiled after four months. Eggs packed in salt during March and April, after wiping with vaseline, to which salicylic acid had been added, kept four and five months without loss, the quality after four months being much superior to ordinary limed eggs. These packed eggs were all kept in the barn cellar, the ordinary temperature of each box varying little from 66° Fahrenheit, and each box was turned over once every two days. Little difference was observed in the keeping of the fertile or the unfertile eggs, and no difference was noticeable in the keeping qualities of eggs from different fowls or from those on different rations.—Report of New York Experiment Station.

REGULAR FEEDING FOR POULTRY.—Early feeding is one of the most important rules on a poultry farm, especially with young stock. The best time to give breakfast to both old and young is just after break of day. Especially is this important during the winter season. A young chicken, above all other young stock, needs early food for protection. It comes into this world with little or no protection from the cold, and must depend upon food for comfort and support. The food secretes the requisite supply for feathers as well as for bone and muscle, and when the young are fledging is when good and frequent feeding is of vital importance. For them to fast until eight or nine o'clock in the morning is too great a strain upon them, and they show it in their growth and health. Feed the old stock next, and then throw open the doors and windows and let in the pure, fresh air. Where it is impossible to feed the youngsters shortly after sunrise, it is a good plan to put a quantity of cracked grain in their house at night, so that they can get it themselves the first thing in the morning.—Mirror and Farm.

FLOOR THE HEN HOUSE.—We are often requested to state which kind of a floor is best for a poultry-house. This depends on circumstances. If rats are numerous, a concrete or cement floor is best. In fact, the kind of a floor is not so important as the material to be used on the floor. If the floor is kept covered to a depth of four inches with leaves, cut straw, cut hay, or any other suitable material, it will matter but little how the floor is made. The hens will occupy themselves with litter and keep themselves busy, and all hard foods should be thrown in the litter during cold or wet weather, or at times when the hens cannot enjoy themselves outside. The litter will keep the floor dry, make it more comfortable by shutting off draughts, and render the work of cleaning out the house less difficult. Litter must not be allowed to become filthy, but should be renewed frequently, so as to avoid dampness and disease, and also retain warmth and dryness.—Farm and Fireside.

A DISEASE, NOT A VICE.—The theory that eating broken shells superinduces the habit of hen's breaking and eating their own eggs is absurd. The effect is in the opposite direction—by satisfying cravings for shell-making food. No hen ever learns to break her eggs from eating broken shells, but having broken an egg in the nest by treading upon it or in tumbling it around, she easily learns how to break another. The feeding of more shells and other shell-making food is the best, and, so far as I know, the only remedy for the habit of breaking eggs. Egg-eating is really a disease and not a vice.—J. W. CAUGHEY.

PUMPKINS boiled, cut up fine and mixed with cornmeal, make a capital food for a morning meal for a flock of hens. In winter hens need something warm. As they lose their vigor the egg passage lacks the real life it has in warm weather, hence it fails to act and as a result eggs are scarce fruit when you long for plenty. Do not expect eggs from a flock that has not the comforts of a snug house as well as plenty of warm, cooked food.

CURIOUS ANIMALS.—This was a school-board boy's essay on poultry: "Hens is curious animals. They don't have no nose, nor no teeth, nor no ears. They swallow their vittles whole, and chew it up in their crops inside of them."

NEVER keep hens more than two seasons unless they are valuable for their special strain of breeding.

MISCELLANEOUS.

A LARGE water-storage project is that on the Arizona canal, nine miles from Phœnix. Work will begin at once to put an embankment on the west side of the canal at the distance of three miles, which will form a lake of that length and 20 feet deep. Water will be let in from the Arizona canal during the rainy season.

MILLER & LUX, says the San Benito *Advance*, have at this time on their great ranch in Kern county, 28,000 sheep, 35,000 cattle, 6000 hogs, 12,000 tons of alfalfa-hay, 28,000 sacks of barley, 12,000 sacks of wheat, 5000 sacks of oats. Also 3000 acres of Egyptian corn, which will produce yearly 6000 tons of cereal food.

J. F. BERGIN, president of the San Francisco and North Pacific Railroad, F. S. Chadbourne, W. D. Sanborn, Al Wieland, Fred Yungling, H. N. Gray and General McMutrie, and other San Franciscans, have been at Ukiah, Mendocino county, looking up the prospects for building a railroad from Ukiah to Round valley, 60 miles distant, where a large body of coal is said to lie undeveloped. The storm interfered with the trip.

THE Must-Condensing Company of Geyserville is anxious to remove its plant to Healdsburg, providing the citizens of that place will give it some inducement in the way of a bonus. Baron Schilling, one of the biggest stockholders of the Must-Condensing Company, was in Healdsburg last week, and all the citizens he had spoken to in regard to the scheme gave him much encouragement. Healdsburg needs a few more manufactories.

THE Pine Ridge flume has been completed sufficiently to turn the water into Dry creek from Stephenson creek, 12 miles beyond. Water is brought in sufficient quantity to irrigate 50,000 acres of land in Fresno county, which have never yet been under a canal. This flume is the largest in California, and the first 12 miles were completed last summer. It will be extended to Fresno next year for the purpose of floating lumber in addition to its irrigation facilities. Additional arrangements are being made to build the flume still farther into the mountains to tap the upper tributary of the San Joaquin river.

A NEW irrigation canal is being surveyed from Lake Tulare northward to the San Joaquin river, near Mendota. A corps of engineers are at work and have the preliminary survey about done. It is not understood what company is at the head of the enterprise further than that the Sunset Irrigation Co. has nothing to do with it. The canal will be about 80 miles long. It will follow northward along the center of the valley. Water will probably be stored in Lake Tulare in the winter and used in the dry season. It is also said that waste water from another canal will be led to this canal and used for irrigation the second time. The eastern side of the valley slopes gradually toward this new canal, and in many places there are streams of considerable size flowing from old canals as waste and superfluous water.

AT the last meeting of the State Board of Prison Directors, an order was made looking to the establishment of a cordage factory at Folsom prison. The warden was directed to get estimates of the cost of machinery for the manufacture of cordage, to the end that the directors might make a recommendation upon the subject to the Governor and the legislature. The State has just constructed at Folsom, at a cost of more than $100,000, a powerhouse to utilize the water of the American river. This building contains seven Leffell wheels, capable of producing 700-horse power. The water will be turned on at these works some time next month, and the directors of the prison are casting about to utilize the power. Mr. Sontag is decidedly in favor of establishing a cordage factory, and a bill will be introduced in the legislature to that end. It is probable, however, that there will be opposition to the plan, as many people dislike to see convict labor come into opposition with free labor. In the matter of jute bags, the needed amount cannot be supplied by factories in this State, but in the matter of rope it is different. The cordage factories now running here can supply all the demand.

A Model Country Place.

SERENA, Santa Barbara County.

TO THE EDITOR: One of your regular patrons—James A. Blood, who resides at Carpinteria, Cal., is ranked among the first-class farmers on the southern Pacific coast. He has erected on an elevated site the best farmhouse that I ever entered. It is perfectly planned in every respect, and I would advise others who desire to build convenient and comfortable homes in this State to look his premises well over. Not only the family dwelling, but the piggery and other accommodations are worthy of inspection by those who seek examples of fine construction and good, common sense abroad. Mr. Blood's English walnuts cover a wide field, systematically arranged in rows, numbering over 1000 trees, and now he holds in store over 140 sacks, in one pile, of fresh fruit that contain; each sack, over two baskets of nuts.

SOLOMON W. JEWETT.

BARREN HILL NURSERY.—Felix Gillett of Nevada City has just issued his new catalogue and price-list in his usual tasteful style. He lists the choice varieties of prunes and nuts of various kinds, to which he has given many years of attention, and which have made great progress under his careful trial and energetic promotion. We are sorry to see that he cannot yet receive orders for the famous large prune which he has not yet named, and which is of such great size that it has startled all who have seen it. Mr. Gillet's catalogue also presents in form for reference the excellent essay on walnut-grafting which he prepared for the October meeting of the State Horticultural Society.

A STUDY OF THE CENSUS.

A Notable Paper on California's Population by Gen. N. P. Chipman.

The following paper on the distribution of the population in California was read by Gen. N. P. Chipman at a meeting of the State Board of Trade last Tuesday:

Hon. Eugene J. Gregory, President State Board of Trade.—SIR: The growth of the great West has been marked by a large increase of rural population. Large cities and prosperous towns have grown up with its development, but the strength and power of the West have resulted from the rapid increase of the farming population. Wherever agriculture has been the basis of wealth, the lands have been first occupied in small holdings and the towns built up later or *pari passu*. There is no reason why this law should have been, or still should be, reversed in this State. The wealth of California lies in her soil and its capabilities, under our strikingly favorable climatic influences.

The Census Bulletin No. 134, issued by the Government, gave us a table of the counties of the State, whose population was enumerated. It compared 1880 with 1890, showing increase and decrease in the several counties and total increase for the decade. It also gave in detail the population in townships and towns and cities; but no attempt was made to trace the people to their homes, or to show by arranged data the relative increase or decrease in town and country, nor to bring into comparison the drift of population in respect of the different localities of the State.

I have undertaken to separate the tables and rearrange the data so as to show the relative increase in town and country, my purpose being to discover where the increase has gone and what deductions may be drawn from the facts.

The analysis which I shall give will show that we have gained of rural population in ten years only 78,113, while the towns and cities have gained 265,323, or over 77 per cent. More than one-third of the entire increase has gone into the three cities of San Francisco, Los Angeles and Oakland.

GAINS AND LOSSES FOR A DECADE.

The following table gives the distribution of our population as shown by the census of 1890, compared with 1880, and locates the increase for the decade:

County.	1890.	1880.	Gain or Loss in County.	Gain in Towns.	Gain or Loss in Country.
Alameda	93,864	62,97[illegible]	30,888	30 888	.....
Alpine	667	539	128	69	59
Amador	10 320	11,384	a 1,064	.....	.....
Butte	17,939	18,721	a 782	.....	.....
Calaveras	8 882	9 094	a 212	.....	.....
Colusa	14,640	13,118	1,522	1,173	349
Contra Costa	13,515	12,525	990	495	495
Del Norte	2 592	2,584	8	4	4
El Dorado	9 23	10,683	a 1,451	.....	.....
Fresno	32 0[illegible]6	9 478	22,548	12,218	10 330
Humboldt	23 469	15 512	7,957	3,731	4.226
Inyo	3 544	2 928	616	308	308
Kern	9,808	5 601	4,207	2,861	1.346
Lake	7 101	6 596	505	916	b 411
Lassen	4,239	3,340	899	266	663
Los Angeles	101,454	24 892	76,6[illegible]2	56.572	20,080
Orange	13,589	8,579	5 010	3,544	1,466
Marin	13,072	11,324	1,748	1 872	b 1 4
Mariposa	3,787	4,339	a 552	.....	.....
Mendocino	17,612	12,800	4,812	4,035	777
Merced	8,085	5,6[illegible]6	2,429	563	1,866
Modoc	4,986	4 399	587	293	294
Mono	2 002	7,499	a 5,497	.....	.....
Monterey	18 6[illegible]7	11,302	7,335	2 665	4 670
Napa	16,411	13,235	3,176	1,005	2,171
Nevada	17,369	20 823	a 3,454	.....	.....
Placer	15,101	14 232	869	1,160	b 291
Plumas	4,933	6,180	a 1 247	.....	.....
Sacramento	40,339	31 390	5 949	5,079	870
San Bernardino	25,497	7,586	17,711	11,204	6,507
San Benito	6,412	5,584	828	177	651
San Diego	34,987	8,61[illegible]	26 369	15,829	10,540
San Francisco	298,997	233 959	65,038	65 038	.....
San Joaquin	28 629	24,349	4 280	5,922	b 1,642
San Luis Obispo	16,072	9,142	6,930	3,314	3.616
San Mateo	10,087	8,669	1,418	220	1,198
Santa Barbara	15,754	9,513	6 24	3,401	2,837
Santa Clara	48,005	35,039	12 966	7,138	5 828
Santa Cruz	19,270	12 802	6,46[illegible]	2,796	3 672
Shasta	12,133	9 492	2,641	2,077	564
Siskiyou	12,163	8,610	3 553	1,023	2,530
Sierra	5 051	6,623	a 1,572	.....	.....
Solano	20 946	18,475	2,471	2 424	47
Sonoma	32 721	25 926	6,795	3 412	3,383
Stanislaus	10,040	5 751	1,289	2,193	b 904
Sutter	5 469	5 169	31[illegible]	155	155
Tehama	9,916	9 301	615	751	b 136
Trinity	3,719	4,999	a 1,280	.....	.....
Tulare	24, 71	11,281	13,29[illegible]	5,426	7,867
Tuolumne	6 082	7,848	a 1.766	.....	.....
Ventura	10,071	5,673	4,998	2,271	2,7[illegible]7
Yolo	12 684	11,772	912	832	80
Yuba	9,6[illegible]6	11,284	a 1 648	.....	.....
Total	1,208,130	864,694	363 96[illegible]	265,323	102.146
Total Loss	.....	.....	a20.525	.....	b 3,508
Net Gain	.....	.....	343,436	.....	.....

NOTES.—*a*, Counties showing loss;
b, Lost in country where gain in county.

I find no evidence of any great increase of rural growth in Alameda, and as the subdivisions are not clearly noted, I treat the increase as practically all in the towns and cities.

Six counties of small increase I could not compare, as the data were incomplete; and I divided the increase equally between town and country. With these exceptions, the tables are practically accurate and reliable.

SMALL INCREASE IN THE COUNTRY.

Certain localities, by thoughtfully considering these results, will find ample cause to bestir themselves, while other localities will find full justification for all they have done in the way of promoting development.

The unpleasant fact will appear that the net increase of 343 436 for the whole State can be found in only a few of the counties, while some—the richest in natural resources and advantages—have gained but little or not at all. Of this increase, 195,965 have gone into cities and towns of over 3000 inhabitants and many more into the smaller villages.

The result of the tables is, that while we have added 345 436 to the mass of our population, we have added since 1880 to the towns 265,323, which leaves only 78,113 added to the country population.

In some counties there has been an increase in the population of the towns, but the county as a whole has decreased. Butte county is an example. The town of Chico has gained 1237, while the county as a whole has lost 782. Amador has 1064 less population than in 1880, but her towns have increased 1093.

It will appear also that in some cases the counties have gained in population, but the gain has all and more gone into the towns, showing an actual loss to the country of rural population. San Joaquin county is an example. The towns in that county have gained 5922, while the country has lost 1642. That is, the difference between the gain in the whole county and the gain in the towns shows an actual loss in the country.

The two columns of actual gain in towns and gain in rural population together aggregate 367,469, which number, as shown in my tables exceeds the actual gain in the whole State by 24,033. Twelve counties, shown by the tables, lost 20,525 of these, and six counties fell off in rural population 3508, while gaining in the towns that number more than the total gain in the counties; and this accounts for the apparent excess in the column of rural increase.

Twelve counties have lost an aggregate of 20,525 population. Some of these have doubtless left the State; but the larger part have gone to the other counties, and reappear as new population there. It was the closing down of the mining industries that largely caused this hegira.

The tables show a large disproportionate gain in the cities and towns. The country has gained only 22.7 per cent, while the cities and towns have gained 77.3 per cent. Anyone familiar with the conditions existing in California will see that this is an unhealthy distribution of our increase.

CONFINED TO FEW COUNTIES.

Looking more in detail, we find that a few counties have received nearly all this increase of rural population.

The following list shows that 96,860 of the rural population have gone into 19 counties, and 5286 have gone into 14 counties, making 102,146 in all for 33 counties. The actual increase of rural population for the whole State, however, was only 78,113; and this means that 24,033 have shifted, leaving their former homes, going into other counties, or have left the State and been replaced by new people who have settled in the growing counties. The table is as follows:

COUNTIES GAINING RURAL POPULATION.

County.	Over 1,000	County.	Less Than 1,000.
Fresno	10,330	Alpine	59
Humboldt	4 226	Colusa	349
Kern	1,346	Contra Costa	495
Los Angeles	20,080	Del Norte	4
Merced	1,866	Inyo	308
Monterey	4,670	Mendocino	777
Napa	2,171	Lassen	633
Orange	1 466	Modoc	294
San Bernardino	6,507	Sacramento	870
San Diego	10,540	San Benito	651
San Luis Obispo	3,616	Shasta	564
San Mateo	1,198	Solano	47
Santa Barbara	2,837	Sutter	155
Santa Clara	5 828	Yolo	80
Santa Cruz	3 672		
Sonoma	3,383		
Siskiyou	2 530		
Tulare	7,867		
Ventura	2,727		
Total gain	96,860	Total gain	5,286

Some interesting regional groups may be made that teach some obvious lessons. Bear in mind, I am dealing only with increased rural population.

Group 1.

SOUTHERN CALIFORNIA—SOUTH OF TEHACHAPI.

Los Angeles	20,080
Orange	1 466
San Bernardino	6,507
San Diego	10,540
San Luis Obispo	3 616
Santa Barbara	2 8[illegible]7
Ventura	2,727
Total	47,778

Group 2.

CENTRAL—A PART OF NORTHERN CALIFORNIA—COUNTIES NORTH TO SAN JOAQUIN.

Kern	1,346	
Tulare	7,867	
Fresno	10,830	
Merced	1,866	
San Joaquin valley—total		21,409
San Benito	651	
Monterey	4 670	
Santa Cruz	3.672	
San Mateo	1.198	
Santa Clara	5.828	
Coast south of San Francisco—total		16,019
Sonoma	3 828	
Napa	2,171	
Contra Costa	495	
Solano	47	
Around San Francisco bay—total		6,096
Total		43,524

Group 3.

NORTHERN CALIFORNIA—COUNTIES NORTH TO SHASTA.

Sacramento	870	
Yolo	80	
Colusa	349	
Sutter	155	
Shasta	564	
Sacramento valley—total		2,018
Mendocino	777	
Humboldt	4,226	
Del Norte	4	
Coast north of San Francisco—total		5 007
Total		7,025

Group 4.

SCATTERING.

Alpine	59	
Inyo	308	
Lassen	633	
Modoc	294	
Siskiyou	2,530	
Mountain counties—total		3,824
Total		3,824

These groups show that seven counties of southern California have received 61 per cent of the entire increase of rural population in the State—a very significant fact.

LOS ANGELES AND ORANGE.

My tables also correct an apparent error of the census table in treating Los Angeles county. Orange county was formed in 1889, and all the population there found was placed in the column of increase for that county in 1890. The fact is, that by consulting the census of 1880 we find 8579 of this increase for 1890 were in the same territory in 1880. In giving the increase for Los Angeles, the census bulletin treats this number, 8579, as in Los Angeles county in 1880; and thus diminishes the increase in the latter county. I have in my tables dealt with Orange fairly, but have deducted these 8579 from her apparent increase; thus correctly showing what has taken place in the territory comprising the two counties, and thus giving Los Angeles the full credit to which it is entitled.

The tables, however, enable one to see the exact status of each county, and it is also easy to arrive at certain deductions, which fact gives the tables their value.

A SPLENDID GROUP.

It will be noticed that group two embraces a region containing every attraction known to California—the charming valleys of Santa Clara, Napa, Sonoma, Salinas, all of the San Joaquin valley, the delightful suburban valleys around the bay of San Francisco, and the widely known watering places of Santa Cruz and Monterey; it embraces also the country where the bulk of the deciduous fruits and the cereals of the State are produced; a region, too, within the direct and immediate influence of our metropolis, and comprising an available area very much greater than that of southern California; and yet these 13 counties have added to their rural population 4249 less than the seven counties south of Tehachapi.

It is noticeable that some rich and attractive counties are not in the list and show no rural increase. San Joaquin and Stanislaus are conspicuous by their absence, when their high merit is considered.

A DISCOURAGING EXHIBIT.

Turning to group three we find a still more discouraging exhibit. Leaving out Mendocino, Del Norte and Humboldt counties, as situated on the coast and separated from the other counties of the group by a high mountain range, and we have an increase of rural population of the the entire Sacramento valley, only 2018.

And this result is reached by leaving out of consideration Yuba and Butte counties, whose aggregate loss in ten years was 2430, which would wipe out the gain I have shown for the whole valley. This, however, was a loss of miners, and hence I give the valley the benefit. Otherwise it would appear that the Sacramento valley has 402 less rural population than in 1880, and I suppose accurately speaking this is the true situation.

STAGNATION IN THE VALLEY.

There is much to encourage the counties in Group 2, but what can be said to explain the utter stagnation in the counties lying in the Sacramento valley? Sacramento, Yolo, Colusa, Glenn, Yuba, Sutter, Placer, Butte, Tehama and Shasta, counties possessing every attraction to the home-seeker that can be found elsewhere in the State, have not added one-third as many rural population as the single mountain county of Siskiyou.

Little Inyo, tucked away in the heart of the Sierras, and accessible by rail only by the way of Carson City, Nev., has grown more than Sutter and Yolo put together, and about as much as imperial Colusa, with all her boasted primacy as a wheat-producer.

Alpine, hedged in by mountain cliffs and reached by snowshoes in winter, with a total population of only 667, gained as much as Yolo, of whose county seat it is said that it contains the wealthiest per capita population of any town in the United States.

And yet in this group of laggards will be found the largest vineyard in the world and the largest orchards of deciduous fruit trees in the State. The orange groves of Marysville, Colmena, Palermo, Oroville and Placer attest a climate similar to that of famous Riverside. All that beauty of scenery and picturesqueness of landscape can add to a country fertile as the fattest lands of the State, is here present to invite intending settlers, but they have not and do not come. I claim the right to speak thus plainly of my own home.

WHAT ARE THE REASONS?

There is some reason why Fresno has gained 10,330 of population in ten years, and Tulare 7867, while San Joaquin and Stanislaus have gained none, and Merced only about one-tenth as many as Fresno—all lying side by side in the same great valley and surrounded by similar conditions of soil and climate.

There is some reason why the splendid counties of Sacramento, Yolo and Solano, through which every visitor to San Francisco from the North or East must pass, has added less than 1000 to their agricultural population in ten years.

I will not at this point attempt to give the reason, lest I break the force of the facts I am pressing upon public attention; those most concerned should search it out and apply the remedy, as should be done elsewhere as well.

The foregoing appears chiefly from the face of the census. Going outside and consulting facts known to us all, and we are able to make some further important deductions.

FRUIT THE ATTRACTION.

The rural or agricultural growth has gone where the fruit industry has developed or is being developed largely, and it has shunned the exclusively wheat-growing counties.

Turn back and consult the tables, and in every case, with a very few exceptions, where there has been substantial increase you will find a county where fruit is the distinctive attraction. The exceptions are cases not involving agricultural development; as, for example, Siskiyou and Humboldt counties, where the lumber interest brought the people in large part. In no instance will you find any growth worth mentioning in the rural districts where wheat-farming is the leading industry. Generally in such districts there is an actual loss of population and decadence of prosperity. The towns have grown in some counties, but the country has not.

GREAT GAINS IN SEVEN COUNTIES.

It will be seen, also, that while 61 per cent of our rural increase is in the seven counties south of the Tehachapi mountains; the balance is nearly all south of a line drawn east and west through the city of Sacramento.

It is worth our while to search out the reason for this. It does not lie in soil or climate; the conditions both of soil and climate are even more favorable north of this line than south of it, by reason of similar conditions generally, and with the added comparative cheapness of lands and increased rainfall north of the line which makes irrigation unnecessary to grow fruits successfully. What is the cause?

TWO CONTROLLING REASONS.

Primarily, I attribute it to large land-holdings and a failure or unwillingness of the owners to subdivide and invite immigration.

Another potent cause is the absence of competition in transportation lines, by reason of which there has not been that stimulus on the part of carriers, so energizing in the south, to promote immigration and create new business.

Without the data, I cannot state more than my belief: but my belief is, that the agricultural tonnage has not increased in the Sacramento valley in the past ten years,

whereas it ought to have more than doubled. Leaving out the fruit shipments, I think there can be no doubt about the agricultural tonnage having fallen off, and this is a reproach to the people of the region as well as to transportation companies. But whether or not tonnage has decreased, the fact remains that the people do not increase, and without people we cannot have prosperity and growth.

THE PEOPLE ARE UNENTERPRISING.

Still another, and by no means the least important cause lies within the resident population itself which does practically nothing to improve upon existing conditions, or to show the capabilities of soil and climate. It has been demonstrated in this State that the genesis of every successful attempt to attract buyers and bring in settlers has been the local effort of citizens. In no instance have strangers alone come in advance and possessed the country and developed it. The local people have always made the first advancement and demonstrated their faith by their works. Fresno is a typical and honorable example of this fact. Southern California is a resplendent monument to the local enterprise of her people.

Scattered over the north are large plantings, but there has been no community of effort looking to immigration. General Bidwell at Chico has probably 1500 acres of orchards; Governor Stanford at Vina, 3500 acres of vines; Mr. A. T. Hatch and his associate, 1700 acres of orchards at Biggs, and 600 acres near Cottonwood, and 1000 at Suisun, besides other plantings. Other large orchards might be named, and many smaller ones; but trees do not grow people, and large orchards do not imply increased population.

While as a board we represent the whole State, and have always avoided the promotion, invidiously, of one section over another, is it not our plain duty when we see causes at work to retard any particular portion of the State, to point them out and lend our assistance to their removal?

ADVANTAGES OF THE NORTH.

The absolute truth about northern California is, that in some respects it offers greater inducements to the settler who desires to engage in our leading industry of fruit-growing than any other portion of the State at this time.

Lands are cheaper; the climate is favorable to the growth of all our fruits; irrigation is not a necessity; the region is healthful; the landscape surroundings are cheerful and picturesque; the country is well watered; river navigation is practicable to the upper end of the Sacramento valley; a railroad traverses the country on each side of the river; the lands are fertile and bring fruit trees rapidly into bearing; the valley has no disadvantage, save its heat in summer, which is no greater than in all our valleys remote from the sea, and this disadvantage only adds somewhat, but no great deal, to the discomfort of living for two or three months of the year, while having its compensation in growing and curing our fruits. Notwithstanding the large land-holdings to which I have alluded, there are many thousands of acres of excellent land for sale at low prices in almost every county.

I think we have a right to point out this condition, as we know it to exist; and while we would not divert a single person from other parts of the State, we may, with entire propriety, say, as a Board, that no reason exists why northern California should not receive a large population.

THE FACTS MUST BE FACED.

There is this to be said in justification for making the exhibit I have presented as graphic as possible. It brings the condition squarely before our people; it corrects false impressions and dispels false hopes; it answers the class which has claimed that we have been doing well enough—basing their opinions on unrelated data, and appropriating results attained by others. It will be a surprise to many to find how they have failed to attract any of our increase of population.

San Joaquin and Stanislaus will begin to inquire why the people have gone past their doors without even stopping to bid them good morning, and have settled down in Fresno and Tulare. The people of the Sacramento valley will ask why it is that 343,436 inhabitants have settled in the State during the past ten years, and only 2018 have cast their lot with them. If the germ of public spirit and patriotism and enterprise has not died out utterly, it will—or certainly should—awaken our slumbering energies and arouse our latent activities.

And withal, I maintain that this very expose will be a safe and true guide-board for the intending settler who is not able to pay high prices for land, but would prefer to go where his labor will not only give him the same returns as he would get elsewhere, but will give him the added value to his land that must come to him if he settles in the less undeveloped regions. In the favored counties land has reached a high figure, if not its maximum; in the counties referred to not yet developed, the settler will have the benefit of the rise in values that will surely attend rapid growth.

RAILROADS SHOULD HELP.

The facts brought out by these tables suggest some important considerations to the transportation companies. If it be true, as the foregoing would seem to demonstrate, that the fruit industry is destined to be the leading agricultural industry of the State; if it be true that to it is due largely the increase of our agricultural population, the plainest principles of business interest would require the railroad companies to promote this growing industry in every way consistent with fair returns for the service. And the relief and encouragement must come, not alone in lower rates, but rather in prompt and expedited service.

INCREASES OF A DECADE.

We shipped East by rail in 1880, 546 carloads of fruit; in 1891 it had increased to 17,738 carloads, excluding wine and brandy. This large addition to the business of carriers in shipping our fruit is but a part of the added traffic. It has brought with it increased passenger traffic and all the varied and profitable business of distribution of supplies to this army of fruitgrowers. We have but to study the evolution of southern California to see how enormously the freight and passenger business has grown under the direct and immediate influence of the fruit industry. It would seem to me that the plainest dictates of ordinary business sagacity would bring the fruitgrowers and the transportation companies into the most intimate and friendly relations, and that there should be no attempt on the part of one to overreach the other.

To say that the future successful development of fruit-growing depends upon its treatment by the railroad companies is only to repeat what is patent to us all. To say that they would deliberately enforce a policy detrimental to or destructive of the industry is to attribute a degree of ignorance to their managers which we know they do not possess. We therefore speak with the same plainness and frankness to the railroad companies as we do to ourselves when dealing with the lessons to be drawn from this study of the census. A common interest suggests certain obvious steps to be taken by railroad managers as well as by the people. Southern California and portions of central California have done well, and are doing well. Let us be thankful for that. Northern California needs the earnest, intelligent effort and best energies of her most influential citizens, and especially does it deed something more than the mere operation of trains on the part of the only railroad company we have; it needs its direct efforts to promote immigration.

There is no single sound reason why, with the mutual and zealous cooperation of these two forces (the people and the railroad company working to a common end) we should not rapidly add to our population, develop new business and increase the prosperity of this portion of the State.

I have been led, Mr. President, to lay this matter before this Board because it seems to be within the province of my committee, and because I am deeply impressed with the belief that there are causes at work to retard the growth of portions of the State that ought to be sought out and remedied.

PEOPLE SHOULD AROUSE THEMSELVES.

I think the facts should have the widest circulation among our own people, in order that they may be stimulated to search the remedy and apply it. It may not be pleasing to delinquent counties to see their shortcomings thus exposed, but the true friend of progress never fears the truth, but rather welcomes it. I have the same unshaken faith in northern California that has kept me there at work in my humble sphere for 16 years, proud of the development at the south and elsewhere, but always hopeful that the splendid resources of the north would have recognition.

I believe that there will soon be an awakening among the people of this region, and that we shall at no distant day enjoy the higher civilization that always attends the expansion and development of a country so intrinsically meritorious and so deservedly inviting as northern California.

Trusting that my labor—and it has been no easy task in thus presenting the results of immigration to the State for the past decade—may awaken inquiry, and that it may lead to greater effort where it now plainly appears it is most needed, this report is respectfully submitted.

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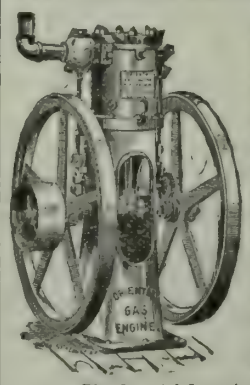

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THE HOME CIRCLE.

The Storm King.

Written for the RURAL PRESS by LILLIAN H. SHUEY.

Hear the drum and the fife of the army of the South,
  See the couriers riding fast!
  See the cohorts riding past!
Hear the whistle of the fife in the Storm King's mouth.

Hear the sounding and the throbbing of the Storm King's drum,
  Sobbing through the cloudy spaces,
  Rolling on the bare hill places,
Hear it beating where the frightened forest birds are dumb.

Now the whistling fife is calling at the corner of the roof;
  Calling up the lagging legions,
  From some stormy, misty regions;
Hear it calling, calling with a plaintive, shrill reproof.

See the legions on the mountains rolling up the ranks of rain!
  See the low, dark shadows coming,
  While the wind with sonorous drumming
Keeps calling on the legions to the dry and dusty plain!

And the Storm King rides his chariot. 'Tis a snowy, sunlit cloud;
  And his charger's feet are treading
  Where the long, grey paths are spreading,
And his robe is trailing in a misty, dusky shroud.

O, the clouds that fill the valley! 'Tis the army of the South,
  And the conquered peaks and passes
  Lift the banners of the grasses.
  O, the gladness of his coming!
  Hear the south wind wildly drumming!
Hear the whistling of the fife in the Storm King's mouth!

The Two Scales.

Written for the RURAL PRESS by CHARLES P. NETTLETON.

I think this strange, sweet scale of sounds we know,
  This wondrous swell from highest starlight roll
  To lowest thunder-bass, is to God's whole
Vast music-realm as one short note, one glow
Of light from His great sun, whose wider flow
  Shall for God's own voice be known by the soul.
  Then shall no jarring note the rest control,
For discord dies with other earthly woe.

If but one note, fragmental thus for man,
  So awfully can draw a soul confined,
    What feels the soul when free?
      Who can foretell?
Some mountain-tops of truths we may not scan
  Till spirit sees but spirit, or if divined
    In some wondrous hour, silence speaketh well.

Madame Savarra.

A football game was going at full blast. All the seats on both sides of the field were full, and inside the ropes was a straggling line of white and crimson substitutes, looking like great squatting ducks. At the moment when my story begins, every one in the tiers of seats had risen hastily to his feet and was vigorously clapping and stamping, as he strained his eyes to follow the Harvard back that sprinted with the ball through the dusty glare. Even the substitutes had got up and were running along the edge of the field half doubled up. The bottom row forgot to cry "Down in front," the crimson reporters wrote all crooked, and in the excitement an invasive small boy escaped from the pursuit of a desultory policeman.

While the interest was thus at its height, a sudden lull came in the applause of one section of seats. Some people deliberately stopped cheering, others paused to see what could be detracting attention from such football; all felt repaid for their momentary abstraction. The two women that had caused this stir of silence walked slowly before the spectators. One of them was such a person as we read about, and sometimes see. Tall, largely and well formed, and gracefully dignified, she wore a well-fitting, fashionable gown which was striking in cut and color, while it escaped being loud. All the correct appendages of hat, gloves and wrap she had in the latest style. Her face was pleasant and intelligent, and if there was a touch of rouge and of powder, it was applied with so practiced a hand as to escape notice. She did not look her 40 years. The other woman was dressed with equal taste, and more plainly, and looked older than the first one. Evidently she was a maid or companion.

By the time the two had found seats the touch-down was made. Everybody was sitting, and as the goal was kicked the flame of applause went out in a quick blaze of sound. Then every one was leaning forward to look at the strange arrivals, where they sat apparently unconscious of the effect of their appearance.

Henri Sherwood, a freshman, who sat behind them, spoke timidly to a sophomore that he did not know:

"Will you please tell me who she is?"

The sophomore half turned his head and said in a low, supercilious tone, "Why! Madame Savarra."

The freshman knew the name. He had read it in the papers, on the fences, and had heard it everywhere. It was a popular name of a successful woman, one of the few women of the day that had enough mind and soul to play Shakespeare. He looked at her keenly and decided to see her act that night.

Soon after this the first half was over. People got up and went down on the ground and walked about. Henri Sherwood stepped down from his place, and stood for a moment looking about him. Some one touched him on the shoulder, and said:

"Hello, Henri Sherwood."

The two fellows moved off together, and Sherwood did not see the quick, wondering glance that Madame Savarra gave him as he mixed with the crowd, although he had been staring at her a minute before. She spoke in a low tone to her companion, and the two women walked a little way among the people, but they soon reseated themselves, and waited for the second half. Sherwood did not see them again during the game.

There is, however, no doubt that they saw him, for at about six that evening Dick Roberts went into Henri's room and began:

"Say, do you know, Henri, that Savarra was talking about you? I heard her say to the other one, 'Sherwood; yes, I'm sure it was Henri Sherwood.' She talks with a kind of an accent. And then she caught sight of you and pointed you out, and got as excited as the devil. Do any of your folks know her?"

"Dick,' said Henri, striving hard to be calm, but trembling, "I should think there is something up. That woman is my mother."

"*Mother!* Savarra?'

I believe that for a minute Dick thought that Henri was out of his senses, for he could see that there was no joke, but Henri soon convinced him of the truth of what he said. He showed him a note from Madame Savarra that he had found in his room after the game, and he told him the story of his parents. It is too common a story to be romantic—that of the married pair that cannot love, cannot even endure each other longer, so that some plea is found and the bond is dissolved. In this case there were unique points; the wife had been a young French woman, beautiful and accomplished, but inexperienced; her only child had been taken from her, she had departed from an inhospitable land, but where she had gone no one had cared to know. Henri could not remember his mother, but he had clung superstitiously to the name she had given him, and would never English its spelling, which was all he could do to show an inborn love for an unknown parent. His father had died years ago, and he had been brought up by his aunts and his uncles.

This is the story of which Henri now excitedly recounted the main points. He was a fellow with some romance, and had been silently used to worship his mother, as he vaguely imagined her to be; but this very romance had heretofore disinclined him to speak of its effects. Now, however, he surely had no reason to be reticent. The mother was found. Joy at the idea opened his heart and his mouth, and he poured out to his friend his happiness and his pride.

He gave Roberts the note to read, and watched him with an unconquerable smile of delight while he read it. The diction was not of that cold formality that a woman naturally uses in writing to a strange young man. The English was good, but had one or two European turns of expression, and the warmth of the style also seemed rather exotic. Although the language was involved, the note certainly presaged a joyful reunion of long-sundered ties; but this was not put in so poetical a form as to cause the request that came last to be an anticlimax. Madame Savarra wished Sherwood to call the next afternoon at the Hotel Vendome.

When Roberts finished reading, he said: "Well, let me congratulate you, old man. You ought to be a happy fellow."

Henri answered, "There are not many women on the stage a man could take for a mother and be proud of."

The next day Henri went to the Vendome and was taken to Madame Savarra's private parlor and told to wait a few minutes. He sat during these minutes in a state of tremulous excitement, trying to be calm, and yet asking himself why he should be so. He was there to be restored to his mother, from whom he had been parted for years, and whom he had loved with an innate love; and this mother was a woman admired and almost adored by thousands, a woman renowned for her beauty, her intellect, and her virtue.

The door opened, and as Sherwood arose Madame Savarra entered with an odor of violets. He had vaguely expected to throw himself into her wide-open arms, but such a course seemed highly inappropriate now, as the majestic figure advanced in her robe of swaying white; so Henri stood and held the arm of his chair, as she smiled graciously and slowly spoke in her sympathetic, effective voice:

"Henri Sherwood. Will you please to be seated."

However, they both remained standing, and she immediately went on, calmly, but giving no chance for reply.

"You of course know why I have sent for you."

She had a distinctly foreign accent, and spoke with vigor and with attention to point, as though she were giving some telling speech before a large audience; and occasionally she used a quiet, well-chosen gesture.

"The unexpected recognition of yesterday afternoon, and also this meeting of to-day, gives to me the greatest pleasure. It is not often that I have been so deeply interested in any event; and this is not only on account of the undivided happiness that such a joyous reunion must afford to even an unaffected observer, but equally because I am for so long aware of the merit of that worthy soul to whom this meeting gives already the most immense delight. To me that knows how long and earnestly the mother has hoped and prayed to see her dear child again—and this I know as no one else can—it is like an answer to the prayer. To you, who have your splendid feelings of the youth, it will not be needful to say anything in praise of that dear parent, but I cannot meet you without telling you how I appreciate her true value, which you yet have to learn. She is the faithfulest, the most trustable of women and the most patient. For all these years Madame Sherwood is always my most beloved friend; and I have never regarded her position as in the least menial, for she has been to me more as a sister than as a companion. And so I can share her happiness of regaining you. All this time, sir, your poor mother is waiting for me to bring her to you."

With a charming smile Madame Savarra turned and walked majestically to the door, while Henri Sherwood clung to the arm of the chair.—Louis How, in the Harvard Advocate.

A NEEDLE'S VALUE.—A recent traveler among the Eskimo lands speaks of the little sewing needle as a priceless treasure. He says: The conditions of life of these people, and the value in their eyes of articles which to us are so insignificant and common that we think no more of them than we do of breathing, are almost beyond our conception. Imagine, for example, one of these Eskimo women, whose duty it is to make the garments of her husband, herself, and her children—and an idea of the amount of work that this means may be obtained when I say that the birdskin shirt, an indispensable article of dress of every individual, young and old, is made up of from 70 to 100 birdskins, neatly sewed together—imagine, I say, a woman, situated like this, and having during her entire life-time but one opportunity to obtain a needle. When that one opportunity is offered, if it can be obtained in no other way, she gives for it all she possesses, and once the shining bit of steel is in her possession, an ivory case is made for it, and the case is immediately fastened permanently about the owner's neck. If she breaks the point of the needle, she searches perhaps for days until she finds a bit of stone fine enough and sharp enough to grind a new point on the needle. If she breaks the eye, the shank of the needle is laboriously etched and roughened with stones until she can attach the sinew which forms her thread in the same way that the shoemaker attaches his waxed thread to his bristle. And when the owner dies the precious article is handed down to her favorite daughter.

DAUGHTERS OF ISRAEL.—The Daughters of Israel is a society recently organized in Baltimore, modeled after the King's Daughters. Several hundred young ladies have been formed into bands of ten for the purpose of "doing little deeds of kindness" at home and in the neighborhood. Each member will wear a medallion or decoration with "Love thy neighbor as thyself" inscribed in Hebrew letters.

HABIT OF EXAGGERATION.—The habit of exaggeration is largely a fault with young people. It is better to admire too little than too much. Make your statements simple, concise and unaffected, and reach the point where your word can be relied on, and where your veracity and truth are unquestioned.

Life.

Two things there are we have no voice in choosing—
  Our ancestors nor our existence here.
Fate's mandates here admit of no refusing
  From prince or beggar, sinner, saint or seer!

Time leads us onward through the world's deep mazes;
  No horoscope forecasts our end or way;
The keenest thought within the world that blazes
  Cannot elucidate beyond to-day!

We see the footprints of those gone before us;
  The heights attained; the ledge where some fell;
Anon we catch heaven's chimes, sweetly sonorous,
  Or hear a plaint from sin's own citadel.

Our work goes on. We fancy we can fashion
  A structure fair, and beautiful, and grand!
We often fail! God can but have compassion
  Upon the heart that owns a feeble hand.

I can but think the rudest life work given
  Has hidden in it one fair, polished stone;
Smooth, perfect, beautiful—as seen from heaven—
  Though sunk in chaos, with rank weeds o'ergrown.

Enough, 'twould seem, if, with each gift extended,
  We add our fraction to earth's highest good,
That we may whisper, when our life's expended,
  Though poor my work, I did the best I could!

—Housekeeper.

San Francisco Fashion Notes.

Written for the RURAL PRESS.

DEAR KATIE:—The style of winter hat principally worn now is a felt of either light or dark shade, high-crowned, something the shape of a cone in fact, with trimmings brought mostly to the front. A fold of velvet is generally used for the crown trimming, it being brought from the back of the hat round to the front and fastened with an ornament—either a pretty buckle or a wide, fancy bow. The loops are shaped like the wings of a butterfly, which gives the hat a very pretty appearance. A person with a well-shaped head, with hair suitably dressed, looks very attractive in one of these hats.

Toques are also very fashionable, they being covered with velvet of different shades. The trimmings are brought to the front, and consist of loops of velvet or ribbon, with either an aigrette or wing to give the hat a finished appearance. Small hats are more worn for evening than the larger ones, but either style is very pretty for street wear. Buckles of all descriptions make pretty hat ornaments. The larger the buckle, the more fashionable it is.

Green or gray velvet makes a pretty trimming for black hats. The delicate shades of pink and green felt trim nicely with black velvet, having either wings or tips to match.

Shoulder capes have again come into fashion, although the style is not quite the same as was worn last winter. They are made of either light or dark material, and consist of three capes, with a narrow trimming of fur or beaver. Some have yokes of velvet, while others are V-shaped, with the trimmings coming from the back, over the shoulders, down the front. These are pretty and stylish. Another kind of cape which is quite neat and pretty is one made more the style of the circular. This cape is made in light tan or fawn shades, with a high standing collar of dark beaver. The edge of the cape is also trimmed with beaver.

Capes of this kind are becoming to slender people. Some people prefer capes made of the same material as the dress. Muffs and tippets will again be worn this winter. Light coats, three-quarter lengths, are also in great demand. Large buttons are much worn on these coats or jackets and set them off to great advantage. The standing collar still continues to be the rage, while the sleeve is made full on the shoulder.

The street costume is made plain and neat, the goods being generally of dark material trimmed either with silk or velvet. Narrow braid is also worn considerably. This gives the costume a neat finish. Many of the waists are made coat-shaped, having vests of silk gathered in plaits to the waist, where they are attached to a belt, either of the silk or dress material. Leather belts have been worn a great deal. The backs of the waists generally have long coat tails, reaching almost to the bottom of the skirt, rather in the redingote style. The dress-sleeves continue to be made very full from the shoulders to the elbow, where they are gathered in and attached to a deep cuff of velvet. Velvet sleeves have become fashionable again. These sleeves have a graceful effect, and give the wearer a stylish appearance. The bell skirt is still worn, but not so much as formerly. Trains for the street have entirely gone out of fashion. A very pretty street costume is one made of navy blue serge, or lady's cloth, trimmed with narrow braid some shade of red. The dress is completed with a silk vest the color of the braid. This makes a stylish combination. Plaids have quite come into fashion again, and it is the custom to blend

colors which were formerly considered incongruous. For instance, dark blue is combined with pale green, gray with brown, and dark red with yellow. The result is often more startling than pleasing to the eye.

Your friend, ELIZA.

Content.

All lands are fair to him who knows content,
All skies are sunny and all fields are green;
In dreamy mists with softest azure blent
Lie distant cloudlands tipped with silver sheen.

The wayside violet sheds her fragrance sweet,
For him the wildrose blushes are all spent;
Life's fullest gifts are poured about the feet
Of him within whose heart is found content.

—Selected.

Inexpensive Christmas Gifts.

A short time ago I wrote for the RURAL an article on Christmas presents. It has since occurred to me that directions for making a few simple things may not come amiss to many who have loving hearts and slender purses. One-half yard of scrim at 25 cents per yard makes a pretty scarf for a chair. Fold a narrow hem on the sides and a wide one at the ends and hemstitch. At one end pull four threads, then leave four, beginning about one inch from the hem. Run pink and blue daisy ribbon alternately in the places made, in three groups of three rows each.

Work diamonds of blue and yellow silk in the other end in two rows an inch apart, or better still, if you understand drawn work, do some simple pattern once across. Tie with one and one-half inch ribbon in blue or pink.

A pretty needle-book, the shape of a maple leaf, is made of plush lined with figured china silk and tied with narrow ribbon. Take small bits of bright-colored cashmere or flannel and buttonhole-stitch the edges for the inside. Put thick pasteboard in each cover so it will be very stiff. Another pretty needle-book is made in book-shape, in the same manner, except that the outside has a shirred satin pocket very handy for thimble, thread, etc.

Button bags are made of bits of silk or ribbon four by six inches. Make three bags of contrasting colors with four eyelet holes across the top of each, string together with silk cord and tassels or daisy ribbon. Paint or embroider on the first one: "Three little bags are we, all for buttons."

A pretty book-mark can be made from one yard of ribbon one-half inch wide. Crochet in buttonhole-stitch five brass rings, fold the ribbon twice, slip one of the rings to the middle and fasten, put the four remaining rings on the ends of the ribbon. Print some pretty scriptural text on the ribbons, and you have a pretty mark for the Bible. Another pretty book-mark is made by taking five-eighths of a yard of ribbon one and one-half inches wide, fringe one end and tie with daisy ribbon in some contrasting color; fold the other end to a point and fasten a tassel of the same color as the daisy ribbon.

A very dainty laundry-bag is made of cream-colored muslin, scrim or cheese cloth lined with pale-blue silesia; a hoop is run through the top, and around the outside is a band of blue ribbon with bow and ends. In the entire length of the seam, at the bottom, daisy ribbon is looped thickly in alternate loops of blue and white.

Large gingham aprons are very pretty worked in cross-stitch across the bottom; very pretty patterns can be found in almost any household paper.

Rope card-baskets are very unique, and can be made any size you wish. Take small rope and sew round and round till you have the bottom the size required, braid a piece for the sides, three strands, four ropes in a strand, and sew on; line with bright silk or satin shirred around the top and put bow of ribbon in two colors on the outside.

A very pretty tidy for a sofa or chair is made in the following way: Take 36 brass rings the size of a smallish finger ring and buttonhole-stitch with pink silk. Sew together in four groups of nine each. Take three-fourths of a yard of two-inch pink ribbon, cut in two pieces and cross, using the rings for each corner, making a square; full white Spanish lace three and one-half inches wide around the outside. It will take one and one-half yards.

A towel with an initial and vine worked at one end in wash silk makes a very pretty gift. A very pretty photograph case is made of plush. Take a piece seven inches wide and sixteen inches long and fold. Line with quilted satin in a contrasting color, fold back one corner and put ribbon bow on, the same color as the lining, or it can be made in bag shape with a bow at each side and ribbon to hang it by.

A very pretty ornament to put on the hanging-lamp is made by making balls of satin of contrasting colors stuffed with cotton and sachet powder. Sew little brass ornaments on the ends of daisy ribbon, which, if you have from five to seven balls, makes a perfect mass of the ribbon in different colors, giving a very pretty effect. A pretty chair rest is made by taking figured china silk; make two pieces twelve by sixteen inches and pad with wadding. Buttonhole-stitch brass rings and sew a row thickly on one side of each piece, tack together loosely with one-quarter-inch ribbon. Splashers, bureau scarfs, tray cloths and pillow shams can be bought in almost any store very reasonably, stamped ready for working. It is fashionable now to work such articles in colors, in wash silk.

I might continue indefinitely, but I think I have mentioned enough articles for this time and have aimed to choose the most inexpensive pretty articles that I have seen. MARGUERITE LYNDITH in Western Rural.

YOUNG FOLKS' COLUMN.

Banbury Town.

"Whither away, little maid in gray,
All in the sunshine, whither away?
Are you seeking flowers for a daisy chain—
Will you weave a crown of the golden grain,
A glittering golden crown to wear
All on the curls of your shining hair?

"Whither away, little maiden mine?
Would you pluck a posy of eglantine?
Do you seek for the fortunate shamrock leaf?
Do you come to gather an ample sheaf
Of bearded barley or stately wheat—
Dear little maid of the hurrying feet?"

"Nay, Sir, none of these things for me,
Though the flowers are many and fair to see—
Golden the grain, and cool the shade—
Pleasant the rivulet bed to wade,
But mine is a journey of high renown,
For I'm off and away to Banbury Town!

"Oh, Banbury Town is bright and gay;
Banbury folk are rich and great.
Want may walk with you all the way;
But it never can win through Banbury gate;
Only delight and joy are known
To those who dwell in Banbury Town."

"Stay, little maid, nor strive alone
To reach that wonderful far-off land;
Perhaps when life and its tasks are done
We shall enter its portals hand in hand.
And when the sun of our life goes down,
It may rise again on Banbury Town."

—Clothilde Balfour, in Longman's Magazine.

Which Are You.

I knew a jolly S-U-N
Who goes to bed when his day's work's done;
He never grumbles about a light
Or asks to stay on the streets at night.
Up in the morning so merrily
He wakes the sluggards who sleeping lie,
Drives the shadows from every place,
And says "Good morning" with beaming face.

I know another S-O-N
Who sits up late 'till the rest have gone;
He makes his mamma a deal of work,
Nor dreams he's growing a selfish shirk;
Morning comes, and he sleeps till late,
Bolts his nice breakfast at half-past eight,
And then is tardy. Tell me true,
Which one, if either, are Y O-U?

—LAURA SANDERSON.

Baby's Diary for One Day.

Waked up as usual at 3 o'clock in the morning, and cried until everybody else in the house was awakened. Then I went to sleep again.

Was aroused once more at 6 o'clock by a fly dancing on my face. I tried to hit him, and only succeeded in slapping myself so hard that I had to scream. I screamed until everybody decided to dress; and when they were ready for breakfast, half an hour before breakfast was ready for them, I fell asleep.

My breakfast was served at 8 o'clock. I don't think the cook can be much good, for I never had anything but milk for breakfast dinner, or any other meal since I can remember. After breakfast I saw my big brother playing with a jumping-jack. As I wanted it myself, I cried until nurse made brother give it up. Then brother began to cry, and because I was sorry for him I cried too.

Had lunch at 10 o'clock (same as breakfast). Went out riding afterward in my carriage, and cried all the way home because nurse wouldn't let me have a nice big black doggie to carry. He was a lovely doggie, and when I screamed he barked, so I screamed real hard lots of times. It was great fun.

Got so tired screaming that I went to sleep. At 12 o'clock waked and had dinner (same as breakfast and lunch).

Mamma played on the piano and sang to me. When I tried to sing she laughed, and as I don't like to be laughed at I cried. Nurse said I was a cry baby and cried all the time, at everything, but I don't agree with her. I never cry now at meal times, because I tried it once and found I couldn't eat and cry at the same time, so gave it up. I have all night to cry in if I want to, and I can't eat then.

Had lots of fun. Pulled nurse's hair, then pulled mamma's hair. It wasn't so much fun when I tried to pull brother's hair, for he slapped my hands. I didn't like that, so I cried. Then brother laughed, and I cried harder, and then brother was sent away. I cried harder than ever at this, for I wanted to play with brother.

Had supper at 3 o'clock (same as breakfast, lunch, and dinner.) Got mad and dropped the bottle, and cried because I couldn't have any more supper as the bottle was broken. I have discovered that bottles break. Hooray! Tried to tell nurse about my discovery, and nurse said, "Poor 'ittle sing." I wasn't a "sing," I'm not "'ittle," because there's no such word, and I will never be "poor," so I cried.

From four until five I made a new record. I generally cry at half past four every day, but to-day I didn't. I was asleep.

At half past 5 I had the last meal of the day, a new bottle having been procured. I don't know the name of this meal, but it doesn't make any difference for it was the same as breakfast, lunch, dinner and supper. I went to bed at 6 o'clock.

At 8 o'clock I waked up, and hearing company down stairs cried for some company myself. Mamma came up to me. Went to sleep.

Didn't wake up any more that night after I went to sleep the last time until the next morning.—Harpers Young People.

John Chinaman and His Children.

As a father, John idolizes his boys, but feels keenly the disgrace brought by the advent of a daughter. He does not consider her worthy of a name, but calls her No. 1, 2 or 3, as the case might be. He ignores her entirely in telling the number of his children, counting only the boys. He considers her as without mind or soul, and denies her the privilege of an education which her brother receives. As she grows up she is a slave in her own and her husband's house, and not until she is old does she receive love or reverence.

If a child is taken sick, both John and his wife think the soul has wandered away, and steps are taken to recall it. The mother calls at the open door, "Soul, come home!" The father goes out to seek it, usually searching about the nearest bridge. At his cry of "Coming, coming!" the mother looks carefully about her floor and secures the first thing of life she sees. This may be a flea or beetle, or other insect, but it is supposed to have within it the missing spirit. It is wrapped up and joyfully placed under the pillow of the sick one, who is now expected to recover forthwith. If death comes instead, the child is buried summarily and with scant ceremony. John considers his own coffin one of the most valued and most necessary pieces of furniture for his best room, and his highest ambition is to have an elaborate funeral. He and the older members of his household have this ambition gratified in proportion to their wealth and the number of their descendants.—St. Nicholas.

Humorous.

HOFFMAN HOWES: "I see by the papers that the Pwince of Wales started waising hosses five yeahs ago." Howell Gibbon: "Ya-as. And we must do everything the Pwince does." Hoffman Howes: "But how the dooce can we start waising hosses five yeahs ago?"

A THANKSGIVING CINCH.

We pulled the wishbone, Sue and I,
"I wish to kiss you!" my heart's sigh—
She won; but I've since understood
That she was wishing that I would! —Puck.

CONDUCTIVE TO GRACE. She (at the ball)—"Have you noticed Mr. Downton's remarkable deftness and grace? No matter how great the crowd he never bumps against anybody." He—"Y-e-s, I guess he gets his lunches in a stand-up restaurant, where every fellow holds his own coffee."—N. Y. Weekly.

THE WISE PIPER.

Oh, he was a piper both wise and great,
Who, though he much loved to toot,
Would never endeavor
To tempt his fate
Except on a noiseless flute.

SAFE BOTH WAYS. Maud—"I had a lovely bet with Tom!" Marie—"What were the conditions?" Maud—"If Harrison was elected I'd have to marry him, but Cleveland won, so he'll have to marry me!" —N. Y. Herald.

DOMESTIC ECONOMY.

Tested Recipes.

Written for the RURAL PRESS by ADA TAYLOR SEGRET.

Apple Tapioca Pudding.—Soak one teacup tapioca, in three cups warm water, five hours. Pare and core six juicy apples, put in a deep dish with a cup warm water and the center of each apple filled with sugar; cover and steam in the oven till tender; pour the soaked tapioca over the apples and bake one hour. Eat with a sweet sauce or cream.

Lemon Sauce.—One large cup sugar creamed with nearly one-half cup butter, add the beaten yolks of two eggs, and the juice of one lemon; beat for five minutes and add one teacup boiling water very slowly; keep hot, but not boil; just before serving add the beaten whites of the eggs.

Citron Pudding.—Beat two eggs very light and add one small cup powdered sugar, which has been beaten to a cream with one-half cup butter; flavor with lemon extract. Line a pieplate with crust, put in a layer of thinly-sliced citron, pour the mixture over and bake.

Sauce for Above.—Boil one cup of water and white sugar each, and one teaspoon butter, for 10 minutes, stirring well. Let it cool and beat in the whipped whites of two eggs; flavor with lemon.

Lemon Meringue Pudding.—Soak two cups bread crumbs in one quart milk; beat the yolks of three eggs with one cup sugar and one-half cup butter; mix all together with the juice and half the grated rind of one large lemon. Bake in a buttered dish, then cover with the whites beaten stiff, with one-half cup powdered sugar and a little lemon.

Strawberry Shortcake.—Make a rich crust with flour, shortening, baking powder, a little salt, and water enough to make a soft dough; divide in equal parts; roll out to fit a deep pie tin; pour melted butter over the first and sprinkle with sugar; then put the rest on top, with butter and sugar the same as first. When baked it is easily divided; spread between, mashed strawberries with sugar and cream; also, put some on top. Eat while warm. Bananas or oranges may be used instead of strawberries.

Veal Loaf.—Two pounds veal steak, quarter pound raw pork, chop fine; add one nutmeg, six crackers rolled, two beaten eggs, pepper, salt, and a little melted butter; bake in a loaf shape; keep water enough in pan to baste with.

Fritters.—Four eggs well-beaten, one quart flour, two teaspoons baking powder, salt, and milk to make a batter; fry in hot lard and sprinkle with sugar, or eat with syrup.

PEACHES A LA CONDE.—Peel and cut the peaches in two and stew them in clarified sugar syrup. Fill an oval mold with hot boiled rice; turn the form out on a dish, arrange the peaches around it, and decorate with preserved cherries or other small fruits from the confectioner's. Mix half a pint of the syrup with a gill each of sherry and marmalade, pour it over the dish, and serve hot.

GRAHAM MUFFINS.—One tablespoon of butter, two tablespoons of sugar, one egg, one cup of sweet milk, three teaspoons of baking powder, and flour to make a stiff batter. Drop in muffin rings.

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Absolutely Pure.

A cream of tartar baking powder Highest of all in leavening strength.—*Latest U. S. Government Food Report.*

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PATRONS OF HUSBANDRY.

Return of Master Davis.

He Talks of His Trip and of the Proceedings of the National Grange.

Worthy Master Davis of the State Grange returned Thursday of last week from the East, where, as the readers of the RURAL know, he has been in attendance on the National Grange. Mr. Davis' arrival was a surprise, since, according to the program outlined by himself in last week's RURAL, he was not due until just before Christmas. He returned sooner than expected owing to the severe weather in the East, which rendered it impossible to carry out the plans he had made. "I found it," he said, "impracticable to go about, owing to the storms of snow and sleet, and so there seemed nothing else to do but to strike for home and sunshine. We found storms in Boston, storms in New York and storms still worse at St. Louis, and it was only when we struck the Arizona desert that we got a glimpse of the sun."

Speaking in general terms of the trip, Mr. Davis said: "The trip from here to Chicago was very pleasant. I want to recommend all my friends to travel on trains that do have dining cars, for it is not only economy of money but of time, to have them. The trip from Chicago through Canada to Concord, N. H., was one of the most enjoyable portions of the journey. We noticed with marked interest the stability of the farm buildings, of the roads made of stone or concrete, of the teams, and the general evidences of permanence, as compared with those of American farms, and especially with California farms. The farmhouses are built mostly of brick or stone, and the fences and culverts are largely of stone. The scenery is also inviting, even in the fall. We passed by Montreal and Toronto, arriving at Concord, N. H., on the 14th of November. The city was beautifully decorated and we were handsomely entertained. The session consisted of ten days—morning, afternoon and evening; the members were prompt and attentive to all of the business sessions. The 6th and 7th degrees were conferred on a class of over 1100, and were pronounced by two of the founders of the Order—F. M. McDowell and John Trimble—to have been better conferred than ever before in the history of the Order, this being its 26th session. The public receptions, excursions and entertainments attended by the people of Concord were perfect in every particular. The visit to the great manufacturing town of Manchester was both pleasant and instructive. The traveling members of the National Grange also visited the White Mountains and other points of interest.

"I find," continued Mr. Davis, "a general misapprehension as to the action of the National Grange concerning the financial question. The idea seems to be, so far as I can make it out, that the Grange took up a 'crank' financial scheme proposing to distribute the money of the Government on private loans all over the United States. As a matter of fact, propositions to this end were made but they were promptly voted down. It was in this connection that the most exciting and interesting debates of the session occurred. The question arose upon the report of the worthy lecturer and the supplemental minority report of the executive committee. Each of these documents contained a declaration to the effect that the farmers of the United States are in a deplorably mortgaged condition and that there is very little hope of their being able to redeem their land. The members of the National Grange considered these declarations, talked them over at great length, in fact, decided that there was entirely too much 'calamity' in them and threw them out.

The financial proposition was entirely distinct from the declaration above referred to. It was submitted by Brother Rhone of Pennsylvania, chairman of the executive committee of the National Grange, representing a minority of the committee. The plan would authorize farmers to go into the banking business somewhat on the plan of the national banking system, their money to come from the Government and secured by mortgages on land. These banks would be required to lend money upon land-mortgages at 2 per cent. The details involved in these propositions were not worked out, but many theories were advanced in the course of the discussion which was hot and heavy, bringing out the very best there was in the leading debaters of the session. The central idea was to get money from the National Treasury into the hands of the farmers of the country at a very low rate of interest. The report, bear in mind, was a minority report from the executive committee. It was completely dissected, and, before adoption, all its financial recommendations were thrown out.

Another important matter was in connection with the World's Fair. The National Grange appropriated the sum of one thousand dollars and has secured suitable and convenient headquarters for the reception, instruction and entertainment of its members. A competent person will be in charge of these headquarters during the session of the exhibition. The National Grange also, after a hot debate, went on record as opposing the opening of the Fair on Sundays.

The erection of a National Grange Temple received considerable attention and promising and encouraging reports were made from several States, but, owing to the desire of the National Grange to have headquarters at Chicago during the Fair of '93, further consideration of the matter was left to the next annual session.

The place for holding the next session was not determined. Leading candidates were Washington, D. C., Rochester, N. Y., and other places. The matter was left to the executive committee who are to notify the masters of the State Granges before the 1st of June, 1893.

Several attempts were made to amend the ritualistic work, and the constitution and by-laws, but every one of them failed.

Besides the old standbys familiar in all recent National Granges, there was a number of new men who took a prominent part. Among the more notable were Aaron Jones, of Indiana; D. W. Working, of Colorado, and E. B. Howe, of Massachusetts.

After ten days and nights of consecutive hard work the National Grange closed its 26th annual session, at 12 o'clock midnight, on Friday, November 25th, and most of the members hurried home in order to prepare their work for their several State Granges, some dozen or more of which meet December 13th.

Our return trip was hastened by the excessive winter weather, which set in on the 27th of November. At Boston we found the storm so severe that sightseeing was out of the question and all that could be done was to remain in a well-heated room and have meals sent in. The trip from Boston to New York was made on the famous Falls River Line, and the steamer "Pilgrim" creaked in every joint and tossed on the way from Fall River to New York. The route is a magnificent one, and the steamer is most elegant in all appointments and equipments. At New York we found the weather no more enticing, but, on the contrary, even more disagreeable than at Boston, and sightseeing here was entirely out of the question. The only time we left the hotel, except to get to the train, was to have our tickets countersigned for our return by way of St. Louis, at which point the weather was even worse than at Boston or New York, it being so dark and stormy in the middle of the day that one could not see to read without artificial light. To the Californian who has no knowledge of New England or New York weather, if he is willing to take our word for it, we will say it was the worst we ever saw. All the sunshine we saw after leaving Concord we found in California after crossing the Colorado river at the Needles on our return trip.

The hospitality of the New England people, the devotion they exhibit to home, and its well-earned reputation, is more than commendable. Never before in my life, nor with any people, have I seen such affection shown to the spot which each of us calls home. Many instances occurred where a person well advanced in years was the representative of the fourth generation, each of whom had been born in the New England homestead on which surviving members of the family yet lived.

The cause of the Grange in New England is prosperous, and is in the keeping of scholarly and devoted patrons. But with all the charms of New England and the hospitality of its people, their love of home, etc., ad infinitum, there is yet one thing lacking and that particular thing is California.

The representatives from California at the National Grange were on hand at every roll-call and represented the Order in this State to the very best of their ability."

Mr. Davis returns worn-out by his long journey, following as it did his political canvass. His plan is to spend the next three weeks at home in Santa Rosa, and he expects to begin his official duties early in January. It is expected that between this time and Christmas a meeting of the executive committee will be held in the office of the secretary in San Francisco.

The Farmer Taking the Lead.

Mr. Emerson, in his essay on farming, says that although men do not like hard work, they almost universally have a high respect and great fondness for tillage. He holds that this is a kind of heredity handed down as the original calling of the race. He says: "The men in cities, who are the centers of industry, the driving wheels of trade, politics or practical arts, and the women of beauty and genius, are the children or grandchildren of *farmers*, and are spending the energies which their fathers' hardy, silent life accumulated in frosty furrows."

Emerson spoke on this occasion, as he always did, from his best convictions. Although bred and bound to books and literary work from his childhood, his heart was ever in the garden, in the field or in the woods. Next to his friend and neighbor, Thoreau, he was one of the most ardent lovers of nature that ever lived. The happiest days of his life were those spent upon his little garden farm in Concord. This sentiment of Emerson is almost universal among reflecting minds. From the farm, somewhere along in the line of industry, all have sprung, and hence it is that farming has ever enlisted the love and respect of all thoughtful men in every line of profession or industry. In the industries of the world the farmer takes the lead, whether in number or importance.

The reading, intelligent farmer should be one of the happiest of men. Under the inspiration and teachings of his ancient and honored calling, he should feel the impulse of manhood, as nowhere else it can be felt. The obligations and privileges of freedom should be awakened in *his* mind more fully than in any other, and history tells us that such is the case. No pastoral or agricultural people were ever oppressors of others. As a class they have ever been found on the side of freedom, of right and of justice. They formed an important factor in the epoch, making discussions and actions which led to the establishment of this Republic. How long the commercial and industrial centers of the nation would prosper without the pure food, pure men and pure women provided by our farms and farmers' homes, is a question well worthy of consideration.

Heretofore, as a general thing, the farming community has been deprived of many of the amenities of life; but in this day, and especially in this country, this disability is fast being removed. A denser population, more facilities for education, and, above all, the flood of light and the volume of fresh and independent thought which is flowing in from that great fountain of intelligence and inquiry, the new "farmers' movement," is rapidly dispelling the darkness which has hitherto hung, as a pall, over the fireside of the farm. The entire farming community of the country is to-day "quivering with the energy of an awakened manliness," which is making itself felt in all our social, political and commercial relations. The voice of the farmer is now heard and listened to in our commercial marts and in our political assemblies, and the time is not far distant when he will occupy the full space to which he is entitled in our halls of legislation. When that time comes, it will be well for the entire country and all its vast industries and other concerns. With the farmer at the front, educated and strengthened by the lessons he is learning within the precincts of the Grange, he will be able to so grasp and appreciate the true relationships and economies of society as to sweep away the meaningless generalities of political demagogues and all the vicious legislation which they have heretofore sought to impose upon the people.

The Lesson of the Hour.

The National Grange, which—at Concord, N. H.—has just concluded its 26th annual session, was no ordinary representative body. It represented the largest and most diversified industry in the country. Its object was to lead to a higher civilization and to bring into union all the great industrial interests to work together for the greatest good of the whole country. A local paper, published near the place of meeting, says of this body:

"These men represent not the farm only, with its various operations, but they represent all that relates to the best interests of all who live upon the farm. They represent organized social intercourse among people naturally too much apart by reason of scattered population. They represent education, enlightenment, progress. They represent the first organized, persistent and successful effort to teach the farmer to improve his condition by improving himself—and back of them are 27,000 subordinate Granges, organized neighborhoods, working together intelligently for the common welfare. No other country in the world presents so sublime a spectacle. History offers no parallel to this grand work of intelligent, generous, non-partisan, organized effort at improvement of the rural population."

The extraordinary result of the recent general election has shown that a great unrest pervades the country—that the independent voter is abroad, and that the people are taking measures for the overthrow of parties and the establishment of a new order of things whereby measures shall be established and laws enacted to give more perfect protection to the toiling millions; to put a stop to the present great drift of wealth into the hands of the lordly few, and to the "ways that are dark and tricks that are vain," whereby the burthens of taxes are largely avoided by the more wealthy and thrown upon the shoulders of the comparatively poor. The efforts of the farmers to live and pay their debts on 50-cent wheat and 6-cent cotton in the great eastern and central States is not a success, and it is so confidently believed that such a condition is forced upon them by unjust financial legislation against the best interests of the masses, that a firm resolve seems to have been taken to make a change in governmental matters, either through a thorough reformation or a complete overthrow of parties. The result recorded in the recent election is but a premonition of events to come four years hence.

In bringing about such a radical change it will be the duty and desire of the Grange to guide this unrest into healthy and safe channels where good only and the best interests of the whole country will come of it.

The Secretary's Column.

By A. T. Dewey, Secretary State Grange of California.

AN EXECUTIVE COMMITTEE MEETING will soon be held, although we cannot now name the date. Past Master Overhiser and Worthy Lecturer Huffman have expressed a desire to be present and confer with the committee on matters of interest to the Order. The appointment of a legislative committee or attendant, as recommended by the resolution of the State Grange, will likely be considered; also the matter of a farm-to-farm canvass for the organization of new and revival of dormant Granges. These, and other subjects likely to come up, will make the meeting, no doubt, an important one. Any suggestions from those who cannot be present should be forwarded immediately.

THE AUSTRALIAN BALLOT LAW, which has proved a power for good in its present form, needs important amendments, and we are glad to learn that Bro. Huffman and other earnest workers in securing the law are determined to use their best efforts to have it made as perfect as possible.

POTTER VALLEY GRANGE, we learn from Secretary W. V. Kilbourne, held a meeting in their hall, Dec. 3d, and celebrated the anniversary of the Order. Although the day was inclement, there was a good attendance. At noon, recess was taken, and the members, with their invited friends to the number of 50, partook of a bountiful repast, enlivened by the conversation of friends and neighbors and music by the young folks. Afterward, the Grange elected officers.

TEMESCAL GRANGE enjoyed a pleasant basket lunch at its regular meeting on the 3d. The anniversary exercises by the Grange consisted of short speeches by each member, somewhat in the manner of a Grange love feast. Nearly all participated, and the occasion was heartily enjoyed. The subject of continuing the publication and sale of schoolbooks by the State was the theme of a live discussion which ended in the adoption, by unanimous vote, of the resolution submitted to the subordinate Granges by Sacramento County Pomona Grange, in favor of continuing the system.

The subject of butter and cheese-making was introduced by Bro. L. Frink and discussed also by Bros. Renwick, Woodhams, Stevens and others. Bro. Frink gave his experience in setting milk in cans about two feet deep, holding about one-half barrel. He found that the cream rose better, produced good butter and more of it than when the milk was set in shallow pans. It kept cleaner also. By the system, one or two men would do as much work as three by the use of pans. He found that calves did well on the lobbered milk, without feeding them any new.

Bro. Frink has raised in his dooryard in Oakland, the tea used by his family for

years. He believes farmers could raise their own tea, as well as potatoes, in most parts of California. He scalds the leaves and then dries them, about as sage or other herbs are ordinarily cured. The large amount of work expended in China and Japan in rolling each leaf separately, is considered more a matter of fancy than necessity. Mr. Frink much information in regard to tea culture from his brother, who resided for a time in Japan.

ELECTION AND INSTALLATION OF OFFICERS.

December and January are two of the most important months of the year in Grange work. The selection of leaders in the promotion of the cause for the ensuing year should receive special attention of patrons from highest to lowest. All should be participants in this essential duty. No one should dodge the responsibility, or be lukewarm as to exercising their best judgment and efforts to place their Grange in the best possible working order for the coming twelve months. Having secured standard-bearers for the coming year, they should be equally zealous in encouraging them onward and kindly and diligently support them in every laudable undertaking.

The ceremony of instaliation is a beautiful one. The inspiring lessons given in the services are pleasantly received by earnest patrons, though oft repeated. Patrons, no matter how indifferent and lukewarm may have been your attendance the past year, you can, if present, richly enjoy the installation meeting of your Order.

A sufficient number of Granges have already reported their election of officers to indicate that a lively interest prevails throughout the circle.

APPOINTMENTS OF DEPUTIES.

It is the desire of the W. M. to secure a more than usually live corps of deputy lecturers. The custom adopted some years ago, of having the masters of each county or district confer and recommend the appointment of some patron, has seemed to work very poorly. Some better and more effective method should be adopted to place deputies in the field who will give more time and attention to the work than the majority of those lately occupying the responsible position. Some have held the office so long as to seemingly become "worked out," or "tired" of the responsibilities. While ability in a deputy is a very desirable quality, it is equally, if not more essential that the one selected shall *work*, rather than be simply able to do so.

How would it do for each Grange to discuss this matter, and the master then informed of several brothers and sisters who, it is believed, would make good deputies?

WATERLOO GRANGE, writes sister Mary F. Merrill, is to discuss a pamphlet issued by the N. Y. Century Pub. Co., entitled "Cheap Money." The discussion is set for Saturday evening, Dec. 24th.

CREDIT DUE THE GRANGE.—The Grange was the first organized body to advocate the Australian ballot system in California. We think, also in Oregon. Both Grange and Grange papers were forward in this work from its first agitation until the law became an accomplished fact. The Federated Trades, and a number of earnest and talented advocates outside of the Order, did able and effective work as well as the Grange. Still, without the work done by the Grange and Patrons, it is clear we should not now be enjoying the benefits of the Australian ballot law. In our opinion, the full importance of the system is not yet realized or appreciated. It is the basis upon which other great reforms can, and no doubt will be, accomplished in the near future that could never be reached without its aid.

It is not so well known, however, that the State Constitutional Convention, which gave us our present improved Constitution, was called through Grange action. The Golden Gate Grange, which was organized in San Francisco and flourished but a few years, has that work to its credit. The subject was discussed at its meetings, and finally a committee was appointed, resolutions prepared and adopted and presented to the Legislature and supported by Grange representatives until the Act submitting to voters the question of calling a convention was framed and passed, and the people voted for a convention.

Through a non-partisan movement started at Haywards, mainly by earnest and active Patrons of Husbandry, a number of stanch and true representatives of the people's interests were elected to the convention, including Past Master J. V. Webster, Thomas McConnell and a number of other Patrons from different parts of the State.

These men cooperated with some of the labor representatives and other honest and independent members, and thus the present constitution was secured.

Golden Gate Grange, during its short existence, had many an excellent session. Pioneer Patrons who participated in those meetings will remember with pleasure the eloquent and stirring speeches that were wont to be made by Past Masters J. W. A. Wright and I. C. Steele and other able speakers of those early and enthusiastic Grange times.

GRANGE ELECTIONS.

[Secretaries are requested to send us as early reports as possible for publication under this head.]

The State Secretary has during the past week received reports of elections of officers from nine subordinate Granges as follows:

EDEN GRANGE.—Election Dec. 3d; officers chosen: H. V. Monsen, M.; C. Christensen, O.; Sister Christensen, L.; J. H. Driver, S.; H. P. Mohr, A. S.; Sister Perham, C.; Bertha Gading, T.; J. Sharai, Sec.; W. T. Christensen, G. K.; Sister S. Dennis, Ceres; Amelia Gading, P.; Kate Monsen, F.; J. Lachman, L. A. S.; Sister Mattie Driver, Trustee.

GLEN ELLEN GRANGE.—Election Dec. 10; officers chosen: C. H. W. Bruning, M.; L. Knight, O.; Mrs. Lucy Hendley, L.; Miss Emily Kurtz, S; F. M. Hunter, A. S.; Mrs. Mary Zane, C.; J. M. Zane, T.; Mrs. M. A. Miner, Sec.; Henry Chauvet, G. K.; Mrs. J. M. Whitaker, Ceres; Miss Minnie Bruning, P.; Miss Lottie Howard, F.; Miss Electa Bones, L. A. S.; F. M. Hunter, Trustee. Date of installation, Jan. 7, 1893.

LODI GRANGE.—Officers chosen: Sister Alida Allison, M.; B. P. Baird, O.; Sister J. C. Shidy, L; S. F. Mathewson, S.; C. W. Norton, A. S.; Sister M. W. Shidy, C.; R. Pixley, T.; Sister Florence Huffman, Sec.; C. H. Wakefield, G. K.; Hannah Harney, Ceres; Mamie Mathewson, P.; Clara Kettleman, F.; Rebecca Kettleman, L. A. S.

POTTER VALLEY GRANGE.—Election Dec. 3; officers chosen: William Eddie, M.; Geo. W. Pickel, O.; Mrs. Fannie Thomas, L.; Jerry Lierly, S.; R. R. Burrows, A. S; H. P. McGee, C.; I. W. Grover, T.; W. V. Kilbourne, Sec.; L. D. Vann, G. K.; Mrs. Laura Lierly, Ceres; Miss Blythe Lierly, P.; Miss Minnie Spencer, F.; Miss May Eddie, L. A, S.; A. J. Thomas, Trustee. Date of installation, first Saturday of January, 1893.

WEST SAN JOAQUIN GRANGE.—Election Dec. 7; officers chosen: Simeon Higgins, M.; John Treanor, O.; Mrs. J. Chrisman, L.; Adam Parker, S.; Chas. P. Fox, A. S.; Mrs. W. Carroll, C.; A. P. Stocking, T.; W. von Sosten, Sec.; Adam Higgins, G. K; Miss May Wacksmuth, Ceres; Miss Lulu Pelton, P.; Miss Ruth Chrisman, F.; Mrs. L. J. Cox, L. A. S.; John Gardner, Trustee.

TULARE GRANGE.—Election Nov. 19th; officers chosen: John Tuohy, M.; Mrs. Nettie Merritt, O.; J. W. Mackie, L.; John Gill, S.; Albert Nelson, A. S.; Mrs. M. A. Trescolt, C; A. J. Woods, T.; Mrs. Bertha Ingham, Sec.; E. C. Shoemaker, Visalia, G. K.; Mrs. Madgeline Prenn, Ceres; Emilie Houghton, P.; Myra Parish, F.; M. Edith Maples, L. A. S.; A. P. Merritt, John Tuohy, M. Prenn, Trustees. Date of installation, Jan. 7, 1893.

TWO ROCK GRANGE.—Election Dec. 1st; officers chosen: John R. Denman, M; U. D. Houx, O.; A. P. Martin, L; Chas. Hunt, S.; Walter Church, A. S.; S. Q. Barlow, C.; C. Nisson, T.; Geo. W. Gaston, Sec.; Henry Schwobeda, G. K.; Mrs. A. Linebaugh, Ceres; Sister A. P. Martin, P.; Mrs. M. Mitchell, F.; Mrs. R. Andrews, L. A. S. Date of installation, Jan. 5, 1893.

WATERLOO GRANGE.—Election Dec. 10; officers chosen: L. A. Gremore, M; T. B. Day, O.; Lizzie Anderson, L.; F. Long, S; Rollie Drullard, A. S.; T. J. Truscott, C.; J. R. Balkwill, T.; C. A. Merrill, Sec.; James Brumby, G. K.; Sister M. E. Balkwill, Ceres; Myrtie Macomber, P.; Daisie Brittsan, F.; Lora Osborn, L. A. S. Date of installation, probably Jan. 7 (evening), 1893.

YUBA CITY GRANGE.—Election Dec. 3; officers chosen: P. L. Bunce (reelected), M.; Fred. D. Walton (reelected), O.; Julia Littlejohn, L.; Edward Starr, S.; Glen G. Harter, A. S.; Josie M. Walton, C.; Josie R. Heddon (reelected), T.; Nellie Brophy, Sec.; Fred. Cooper, Jr., G. K.; Ella Meeker, Ceres; Belle Evans Greely, P.; Dora Kells, F.; Annie Cooper, L. A. S.; B. F. Walton, Trustee. Date of installation, Jan. 7, 1893.

Grange Anniversary.

PESCADERO, Dec. 5th.—At the close of the long storm a goodly number of the Patrons of Pescadero Grange and invited guests assembled in I. O. O. F. Hall Dec. 3d in honor of our Grange anniversary. Social, musical and intellectual enjoyment certainly contributed to the sum of human happiness, which if extended to every subordinate Grange would render the occasion an important event in the annals of our Order.

At the next regular meeting (the third Saturday in December) the election of officers will be the order of the day. The bountiful rain indicates a fruitful season; and I anticipate another prosperous year for Pescadero Grange. Fraternally,

I. C. STEELE.

Notes from Stockton Grange.

STOCKTON, December 10, 1892.

Headquarters at the World's Fair in charge of the Executive Committee of the National Grange! Just think of it! No going up twenty-one stories to dream among clouds of your mortal members being crushed by falling timbers, but a veritable home on the ground, with a fraternal director to tell you where to go to eat, sleep and buy. A thousand dollars expended for the comfort and guidance of toilers, who will deport themselves with a testifying sense of this protection and unity from the head of our Order.

Our Grange voted against the abolition of the State publication of text books. The State has the plant, and if imperfect, the series can be revised and improved at less cost than by a new ring. The State Superintendent, his aids and prominent teachers, originated and compiled the series, and other errors are likely to creep into another lot; besides, it is a hardship to parents to make an entire change. True, the necessity of paying an editor of the series $200 per month is not apparent.

The vote carried to give the wife the same right to dispose of community property as the husband after the death of the latter. One brother, who is authority on law for us, said the second husband was said to either kiss or beat the property away from the wife. Another has known it swept into a saloon. A third had seen it consumed by foolish bargains; but the majority signed the petition to change the civil code.

Some members think, as the National Grange has a balance of $74,000 on hand, it could build the "Temple of Ceres," for subordinate members would rarely see or use it.

Undoubtedly, Stockton Grange will hold an entertainment to raise funds for a temple to agriculture that would give permanence and character to our Patrons of Husbandry among other fraternal orders.

We are a unit for the government to take controlling shares in and push through the Nicaragua Canal.

Low prices for grain make us all feel poor. Never was there more cordial feeling in our membership, and good officers are just elected for a year of live business.—A. A.

Anniversary Celebration of Tulare Grange.

TULARE CITY, Cal., Dec. 6, 1892.

TO THE EDITOR:—Tulare Grange, No. 198, celebrated the 26th anniversary of the Order, Saturday, Dec. 3d. Owing to the storm, patrons from a distance were detained at home, but the program, consisting of music and recitations, was well carried out. Sister C. E. Kinney was with us and added much to the pleasures of the day by an address full of encouragement for the progress of the Order. The question of organizing a Farmers' Institute was discussed, and a committee appointed to agitate the matter and report at the next regular meeting; after which refreshments were served and all went home feeling that the occasion was a success in spite of the inclemency of the weather. MRS. BERTHA INGHAM,

Sec'y Tulare Grange.

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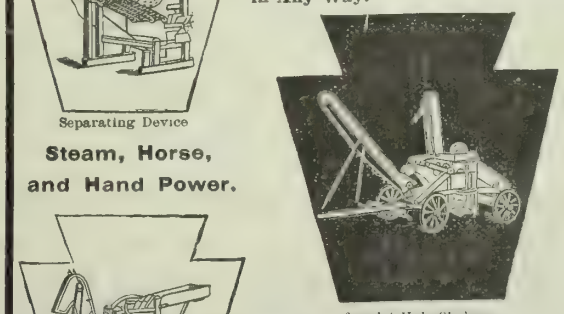

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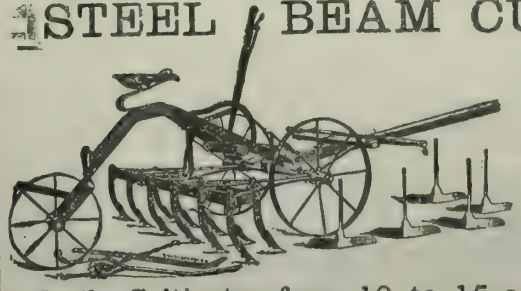

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AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

BAD FOR THE MOLES.—Livermore *Herald*: One day last week Mr. Bistorious' attention was attracted to a small island in his field. He started to wade out to it, but found the water too deep, but got near enough to it to see that it was almost covered with moles, they having been forced to take refuge on it on account of the high water on all sides. The high water caused a large number of squirrels and moles to perish on the Valensin ranch. Similar reports come in from other parts of the valley.

Butte.

FINE FIGS.—Oroville *Mercury:* Judge Gray has on exhibition a five-pound box of White Adriatic figs grown on his ranch east of town. They were cured and packed by his wife, and are beautiful specimens of fruit. They are of large size, light-colored and nearly transparent. The judge has 50 acres in these trees, and this is the fi st year any of them have borne. The trees are grown without irrigation on high, red soil, and strange to say, the largest trees are found on the dryest part of the land.

FINE DISPLAY OF GRAIN.—Oroville *Register*: Gen. John Bidwell of Chico has over one hundred samples of grain, and the World's Fair Commissioners of Butte are making every effort to induce the General to permit them to send these samples to Chicago. The grain was grown for Mrs. Bidwell, who desired to display the same; but as the commissioners were unable to procure samples in time, they are strongly in hopes that Mrs. Bidwell will kindly waive her ownership and allow the county to use these handsome samples of all the grains grown in the State.

THE PECAN TREE.—Oroville *Register*: Among the nut-bearing trees that do well in this part of California is the pecan tree. It is one of the most prolific bearers, its long branches often bending to the ground with their loads of nuts, producing in clusters from two to eight on the end of every tip. It is a species of hickory, and the wood is used for all purposes that hickory is used for. It is just as good for fuel, and when planted in open field, and not crowded by other trees, is naturally of a spreading habit, making one of the most beautiful and symmetrically formed shade trees in the world. It is as hardy as the osage, which, like the pecan, is a native of Texas, but will grow as far north as Iowa. A tree ten or twelve years of age will bear from six to ten bushels of nuts that are worth at least $5 a bushel. The nuts will keep without difficulty for a year, and often at the end of two years they are sweet and good. There are no less than 20 varieties of the pecan, and care should be taken to plant only the largest and earliest varieties. These trees grow readily on the foothill land.

Fresno.

A SHOWER OF MUD.—*Republican*: The phenomenon known as a mud shower was noticed in this city recently. People who were out in the rain wondered why their umbrellas and clothing were spattered with a light mud, but the matter was easily explained. A sandstorm had prevailed before the rain fell, and particles of light loam as fine as flour had been carried high up into the air. This was washed down by the rain, and every drop was a blot of mud.

Humboldt.

A LOVABLE BULL.—*Standard:* A good story comes from Newberg, told about Geo. Thompson and his partner Gus. They occupy a cabin together, and a few days ago an ancient bull, who was enjoying a holiday at pasture, entered the cabin in their absence, hooked the clothing from the wall and ate part of their bed. He was driven out, but a day later he watched his chance and entered the cabin again. This time he knocked over the stove, hooked the bed clothing into the corner, ate up the bed, and finally pulled George's overcoat down from the wall and plastered it securely to the floor.

Inyo.

HORSES GOING SOUTH.—*Independent*: Several bands of horses have started for Los Angeles this week. Wm. B. Hutchings started out last Monday with 18 head, Wm. Rowan and Felix Cardinal left yesterday with 120 head, and Chas. and Jas. Summers go to-day with 15 more. A band of over 200 head of Nevada horses is reported as passing down the valley several days ago, headed for the same market.

Kern.

GLANDERS PREVALENT.—Tehachapi Cor. *Californian*: Glanders are again reported to be prevalent among the horses in this vicinity. Several have already been killed, yet there is a grave doubt among many of the best horsemen here that the disease, as it now appears, is not the genuine glanders, and considerable complaint has accordingly been made against the action of the county veterinary in ordering them killed.

Los Angeles.

LARGE ORANGE YIELD.—Pasadena *Star*: Estimates that place this season's orange crop at 6000 carloads are doubtless too high, but it is certain that the yield will be a large one unless something unforeseen happens to prevent. Last year's crop amounted to but about 3500 cars.

FRUIT FOR THE WORLD'S FAIR.—*California Farmer*: C. M. Wells of this city, vice-president of Southern California World's Fair Commission, has sent to the State World's Fair Commission, at San Francisco, a statement of the fruit exhibit already gathered by San Diego, Orange, San Bernardino, Ventura, Los Angeles and Santa Barbara counties. There are 1386 jars of fruit, 3090 jars of jellies and jams, 2850 pounds of honey. Los Angeles county sends 6000 pounds of walnuts and Ventura 20,000 pounds of beans. Besides this, the association has 170 orange trees in boxes to be set out as an orange grove, and which will be in bearing during the fair. There are also 67 lemon and 11 olive trees boxed for shipment.

FRUIT FROM POMONA.—*Progress*: The shipments of green and dried fruits from Pomona this season have amounted to between 175 and 180 carloads. The dried fruits amounted to 90 carloads. Four years ago the total shipment of dried fruits from here in one season was 11 carloads.

Modoc.

BIG YIELD OF HONEY.—Alturas *Herald*: O. W. Williams of South Fork brought down about 7000 pounds of nice white honey last week, which he sold to merchants in town. Mr. W. has an extensive apiary.

Monterey.

BEET SHIPMENTS.—*Pajaronian:* Beet shipments have been made from the Salinas district this week, and, weather permitting, the narrow gauge will have lots of work in that section before the close of the week. Five hundred tons of sugar were shipped from the factory Tuesday morning, via Moss Landing. It took two trains of the narrow gauge to handle the saccharine load. * * * E. D. Leonard brought in yesterday a fine sample of coal from his place in Green Valley. He has a nine-foot vein, and there appears to be lots of it. It is a good quality, and Mr. Leonard proposes to develop the vein.

Orange.

BIG SHIPMENTS OF CELERY.—Santa Ana *Blade:* About 3000 pounds of celery have been shipped from Santa Ana this week by express. The garden is in the peat land, and large shipments will be made throughout this season.

Shasta.

OUR FRUIT IN FRANCE.—Anderson *News:* Mr. J. P. Wright has received a letter from a firm in Paris, France, offering to give any security asked, for a chance to handle the canned fruit of this season. A few samples were received by them and the superior quality was what attracted the attention of the firm.

Sacramento.

A PROMINENT nurseryman of Sacramento is quoted as saying that instead of receiving orders for hundreds of trees, as in former seasons, they now come in for thousands, and have already reached over 400,000 on his books.

THE GAME LAW.—*News:* Deputy Attorney-General Layson has rendered an opinion on the game law which provides that it is a misdemeanor to hunt, pursue, take, kill or destroy any quail, wild duck, grouse or partridge between March 1st and Oct. 1st of any year, or so deal with doves between January 1st and July 1st of any year; to have such birds in one's possession between such dates is a misdemeanor. There is an exception if the bird is used for food. Probably the Act is void in so far as it applies to birds or game coming from another State.

GRAIN STOLEN.—*Bee*: When Jacob Heintz, who lives on his ranch about 12 miles northeast of the city, woke up this morning and entered his barn, he found that during the night it had been ransacked by thieves, and no less than 600 grain bags stolen. In addition to this, a large quantity of grain was gone, and it was apparent that the thieves had deliberately driven to the barn and loaded a wagon with as much plunder as it could hold, and then driven off in the dark. Mr. Heintz has notified the police, but there is as yet no clue to the robbers.

San Bernardino.

THE Chino sugar factory has closed down, after manufacturing during the season 7,903,541 pounds of sugar.

CONTRACTS FOR IRRIGATION.—Riverside *Press:* The Bear Valley Irrigation Co. has let contracts for laying pipe. The first, for which James H. Todd, of Pomona, was the successful bidder, is for 4½ miles 20-inch steel pipe, known as the Lugonia line, near Redlands. The price paid is $30,000. The other was let to J. D. Hooker & Co., of Los Angeles, and was for putting in mains in a tract of about 75 acres at Moreno, the pipe to be 4, 5 and 6-inch. The Irrigation Co. has let contracts for laying pipe to the extent of nearly $100,000, the work to be all done this winter.

NURSERY SOLD.—Ontario *Observer:* J. W. McFatridge bought this week of Jordan & Son their entire nursery, comprising 11,000 orange and lemon trees.

BIG STALK OF CORN.—Ontario *Record*: Santa Ana district raised a stalk of corn this season that was 19 feet high, and to reach the base of the first ear would require a man five feet nine inches tall, standing on the shoulders of a six-footer, and with arm extended at full length. It was raised without irrigation.

San Diego.

THE FIRST PINEAPPLE.—*Sun:* The first pineapple to mature in this county this year is now ripe at Riley R. Morrison's garden. He says it is yellow as gold, and about 3½ inches in diameter by 5 in length. It is of the "smooth cayenne" variety. Another that will mature in about three weeks measures 6 by 7½ inches. There are a number out of blossom, but others will be blooming and ripening until next summer. The plants are all about two feet in height and in splendid condition, especially the winter varieties. By cultivation some have been made to blossom this fall, and others will do so this winter. The several hundred plants at South San Diego were set back last winter and will not blossom for a year yet.

MONEY IN APPLES.—Escondido *Advocate*: A Julian apple grower brought a four-horse load of apples to Escondido last week and shipped to Los Angeles. We understand that these apples brought the grower $1.25 a box in the orchard, or about 3½ cents a pound, yet we see by the Julian *Sentinel* that some of the mountain horticulturists fear that the apple industry is being overdone. There is more clear profit in growing apples in the mountain fruitbelt at that price than there is in growing oranges at Riverside. * * * On J. H. Hardesty's premises, on the west side of the railroad track, is to be seen a novelty for this section in the shape of three lime trees, bearing ripening fruit and blooms at the same time. The trees are eight years old and are the only trees of the kind in the city as far as we can learn. This is the first year they have borne fruit. To all appearances, the product is equal to any to be found in our stores, being large, sound and free from blemish.

San Luis Obispo.

VALUABLE ONION SEED.—Arroyo Grande *Herald*: A four-horse load of produce was brought into our depot on Wednesday that was probably more valuable than any similar load brought to a depot in the State. In round numbers its value approached $4000, and might have exceeded that amount. It was the crop of onion seed harvested by Mr. McClure on the Cienega.

A BIG CHRYSANTHEMUM.—Arroyo Grande *Herald*: John Rice has a chrysanthemum ten feet high, and the *Tribune* is advertising for some one to beat it.

Santa Clara.

THE PERSIMMON.—Los Gatos *News*: The last of all the fruits to ripen, the Japanese persimmon, now begins to show its brilliant colors. The leaves have fallen and the trees are fairly blazing with the ripening fruit. The Americans are slow to appreciate this, in the opinion of many, the best of all the fruits. One thing is against it. It is too tender to bear transportation, otherwise ere this it would be a fad among the wealthy. Placed when ripe in a silver cup, stem down, the blossom end cut off with a sharp thin knife, and a delicate silver dessert spoon to match the cup, it would be an offering fit for the queen of the fairies. Let it severely alone until it is of the consistency of custard. Those who have once eaten it in perfection will never forget its incomparably luscious flavor.

THE DAIRY.—A Gilroy correspondent in the San Jose *Mercury* says: The dairy business of Gilroy is one of her most important industries. The opinion is widespread that Gilroy lands are dry and unprofitable, hence we desire to call attention to the fact that 1 800.000 pounds of cheese are manufactured yearly by the gentlemen named below. None of these gentlemen irrigate their land, yet all raise abundance of alfalfa and rye grass. The names are: J. C. Zuck, 75 cows; A. W. Furlong, 120 cows; A. Fornii, 150 cows; Geo. E. Rea, 200 cows; Samuel Rea, 80 cows; J. P. Sargent, 100 cows; A. Watson, 50 cows; J. H. Ellis, 125 cows; M. T. Holsclaw, 25 cows; Dexter Bros., 40 cows; R. Eschurburg, 70 cows; E. A. Maze, 40 cows; A. Wilson, 75 cows; J. Murdock, 40 cows. This is a fair average of the size of the dairies here; at times they may run a few more.

Sonoma.

BIG OUTPUT OF BRANDY.—Sonoma *Tribune* Between 1700 and 1800 tons of grapes were crushed at the Finlayson winery this year. That concern will produce this year about 35,000 gallons of brandy, and connoisseurs pronounce it a fine article.

THE Magnolia cannery at Healdsburg has shipped 20 carloads of fruits to the east within the past two weeks.

HOPS UNSOLD.—Sonoma *Democrat*: A prominent hopgrower informs us that there are about 2700 bales of hops remaining unsold in this county. Producers are holding for better prices, which they will probably get, if the number of hopbuyers in town is any criterion. There are about 12 representatives of leading San Francisco and London houses here looking out for bargains.

THE COTTONY SCALE.—Cloverdale *Reveille*: The acacia trees about Cloverdale are badly infected with the cottony scale, one of the most injurious pests to the citrus trees known. The acacia trees at the Catholic church are literally alive with the destructive little insect, and its work is already manifest in the number of dead branches seen. Some steps should be taken to cleanse these trees, or what is better, dig them up and burn them, for if it is neglected, all the orange trees will soon be infested and then the mischief will be to pay.

WINE IN SONOMA.—Santa Rosa *Democrat:* The Los Lomitos vineyard, on the Laguna, owned by John Bailiff, made this season 30,000 gallons of wine, which is 10,000 gallons more than heretofore made. The fermentation has been all that could be desired. The grapes were not as sweet as usual, which partly accounts for it. Mr. Bailiff made an addition to his cellar of 30x24, and put in a grape elevator with a considerable increase of cooperage. Most of the wine made was red Zinfandel, but there was a portion of it Reisling of very good quality. The wine from that section is especially fine in color. Mr. Bailiff is not afraid of the future of the wine business, and is getting his plant in first-class condition for the future. There is not the least indication of phylloxera in that portion of the country, and from its location it is not likely to take the disease.

Stanislaus.

PLOWS IN THE FIELDS.—Modesto *News*: The bright, sunny weather of this morning caused a great number of our farmers to start out with plow teams. If the clear weather continues a few days longer nearly all the lands in the county, except in the heaviest adobe lands, will be undergoing preparation for the next harvest.

Sutter.

BOUNTY ON COYOTES.—The supervisors of Sutter county have placed a bounty of $7.50 on every coyote scalp taken in that county, which, with the $5 additional offered by the State, should make coyote-hunting a remunerative business in that county. These animals are numerous and destructive on the sheep ranges in the Butte.

DROVE THEM TO HIGH GROUND.—*Sutter Farmer*: Oftentimes deer are reported on the river bottom, and are said to be on the increase. Near the junction of the Feather and Bear rivers there are quite a number, and the recent high water drove them out on the high ground. Several were noticed running up and down the levees, and the men who patrolled the levees are reported to have exterminated one or two to protect the embankment from the sharp hoofs of the animals.

Tulare.

WHOLESALE SLAUGHTER OF GAME.—The Tulare *Register* complains that "twelve to fifteen thousand quail are sent into the Sacramento markets weekly by hunters who are cleaning out the foothill country. These birds are trapped, it is said, as nobody could afford to hunt them down with guns and sell them at the prices they command. This is all in violation of law. Again, we are told that organized bands of hunters are killing deer in the mountains of Tulare and Fresno counties, which is another violation of law."

SECOND CROP RAISINS. — Hanford *Journal:* Two of the prominent citizens and raisin-growers of this vicinity—W. S. Porter of Martha's Vineyard and Dr. I. E. Felton of the Banner vineyard—are enthusiastic on the subject of establishing a large factory or factories in the Lucerne valley for the manufacture of the second crop of raisin grapes, much of which now goes to waste or is cured as second quality raisins, into syrup jellies, etc.

CHEAP WAY TO DRY RAISINS.—Hanford *Sentinel*: A cheap plan of drying raisins is being tested by N. W. Motheral with good success. He has an old house 20x24 in which he has put up two small heating stoves. He says it does the business fully as well as if he had a furnace underneath and an expensive system of heating pipes.

GRASS IN A TREE.—Visalia *Delta*: The capacity of Bermuda grass to grow is an old story. It will push it's way between bricks in a sidewalk. There is a dead locust tree in the courthouse yard that is attracting considerable attention from the fact that the Bermuda grass has grown up the trunk and is now covered by the bark. The grass has attained a height of four feet above the ground, and it can be seen in places where it has cracked the bark by its growth. There are tufts of it growing out of cracks in the bark.

THE OROSI COLONY.—Speaking of a flourishing community that has grown up in a few years, a writer in the Tulare *Times* says: "It is difficult to conceive of so great a change in so short a time. Vines and fruit-trees of all varieties have made a wonderful growth. Several hundred orange-trees have been planted and they are doing exceedingly well. One gentleman who has 500 orange-trees says he has never protected them from frost, and a good many of them are now bearing from one to a dozen as fine oranges as one would wish to see. The vines show no effect of frost, and the writer saw great quantities of the finest Muscat grapes yet on the vine. These are the third crop and have not been gathered on account of its being too late in the season to dry them."

A BIG EGG.—*Times*: An egg measuring 8x6½ inches was brought to the *Times* office Friday by M. J. Woodard, who resides east of Visalia in the Townsend neighborhood. Who can beat this?

Ventura.

LARGE TREE-PLANTING.—*Free Press*: F. A. Foster has just purchased 185 acres of land on the Simi of the Land Company, for which he paid $6075. He will set out 100 acres in prunes and apricots, 7500 of the former and 500 of the latter. He has 40 acres on the Wm. O'Harra place near Santa Paula, which he will set out to apricots.

FLOW OF NATURAL GAS.—*Free Press*: There is enough natural gas along the Ventura river bottom, on the property of the Ventura Land and Power Co., to furnish fuel enough to supply all the power the company can use. Edgar Orton, one of the electricians of the company, says that he has lighted the gas as it came from the ground, and it would burn for hours. No attempt has ever been made to bore for it or control it in a pipe.

ARIZONA.

MUCH LAND OCCUPIED.—Arizona *Gazette*: For the year ending Nov. 30, 1892, there were 181,818 acres of land filed on in the Tucson office. Of this amount 117,475 were taken up under the Desert Act, 52,629 acres under the Homestead Act, and 10,714 acres as cash entries This includes original and final entries. This, on a rough estimate, aggregates an area of land 50 miles long by 6 miles wide.

OREGON.

BIG BAND OF CATTLE.—Klamath *Express:* The largest band of cattle ever driven in one lot in the history of Klamath county, left Arthur Langell's fine ranch last Tuesday, bound for Silver lake, to be wintered on the desert. The cattle belonged to Carr & Hayes, and consisted of 3000 head, mostly steers ranging from two years and upward.

MONGOLIAN PHEASANTS.—Recently E. W. Langdon of Albany, Or., shipped ten Mongolian pheasants to some gentlemen in New York, who own large tracts of land there, where the birds are doing nicely.

WASHINGTON.

CRANBERRY OUTPUT.—South Bend *Journal*: The output of the Chabot cranberry farm on the Peninsula this year will be about 2500 barrels. The value per barrel is $8 on the place. The cultivated part of the farm is 40 acres in extent, and about 100 people are employed during picking time. Several thousand acres on the Peninsula are available for this industry.

THE HORSE MARKET.—Yakima *Herald:* The horse market is unusually dull, and evidently a hard winter is looked forward to, for at Cleveland, Klickitat county, a band of horses was sold under the hammer the other day, and some of them failed to bring more than $1.50 a head.

INFORMATION FOR SETTLERS!

The members of the Kern County Land Company have a national reputation for wealth, business and financial ability. These facts set the matter of reliability at rest. The company's capital stock is $10,000,000.

They have 400,000 acres of arable, irrigable lands upon which the sun shines almost constantly; and their enormous irrigation system renders them independent of the annual rainfall.

A clear title; rotation, variety and certainty of crops; easy terms; availability to persons in moderate circumstances; ground ready for the plow—no stones nor thistles; good society; schools; churches, etc., are a few notable attractions of this region of country.

Kern is the largest county in the San Joaquin Valley. It has the finest climate for curing and drying fruits, etc.

The 400,000-acre territory of the Kern County Land Company is the pick of the county.

Its area is 5,184,000 acres.

Has the largest irrigation system in America.

The home of the peach, French prune, pear and raisin grape.

Planting and harvesting can be carried on every month in the year.

No rocks, hills or stumps on the land.

A failure of crops is unknown on irrigated lands.

Kern county fruits take the first prize at the State Fair.

Land can be made to pay for itself in less than three years.

Grows more alfalfa than any other county in California.

The advantages of good soil and plenty of sun, which occur in the Kern Valley, would have been of little avail but for the third and all-important one of an abundance of water from never-failing sources.

Through 300 miles of main canals, and 1,100 miles of laterals, the great Kern river furnishes enough moisture to slake the thirst of the 400,000 acres already referred to.

Drought is out of the question.

The system has been constructed in the most careful and scientific manner. Some of the canals are 125 feet wide and six feet deep.

FOR FURTHER PARTICULARS ADDRESS

KERN COUNTY LAND COMPANY.

S. W. FERGUSSON,
Bakersfield, - - - California.

GRANGERS' BUSINESS ASSOCIATION,

SHIPPING AND COMMISSION HOUSE.

OFFICE, 108 DAVIS STREET, SAN FRANCISCO, CAL.
Warehouse and Wharf at Port Costa.

CONSIGNMENTS OF GRAIN, WOOL AND ALL KINDS OF PRODUCE SOLICITED.

Money advanced on Grain in Store at lowest possible rates of interest.
Full Cargoes of Wheat furnished Shippers at short notice.

ALSO ORDERS FOR GRAIN BAGS, Agricultural Implements, Wagons, Groceries and Merchandise of every description solicited.

E. VAN EVERY, Manager. A. M. BELT, Assistant Manager.

The Stockton Reversible Gang Plow

Is the BEST in the Market for all alluvial soils and is also the Cheapest.

ALL SIZES.

We make Iron Frame Gangs, Single Plows, Superior Channel Iron and Wood Frame Harrows, Disc Harrows, Warehouse Trucks, Wheelbarrows, etc., etc.

Our various shops are well equipped and we do all kinds of jobbing in Planing and Woodworking, Blacksmithing, Foundry and Machine Work.

A leading item of our numerous manufactures is the Celebrated Harvester, the "HARVEST PRINCE." Thoroughly tested this season and proven without a peer in its line. Two first prizes at the fairs of 1892 (wherever exhibited). We also make the Stockton Chief Header, which is not surpassed by any.

MATTESON & WILLIAMSON MFG. CO.,
370 MAIN STREET, STOCKTON.

Send for Price Lists OF GUNS And all Articles used by Hunters and Anglers.

GUNS SENT ON TRIAL.

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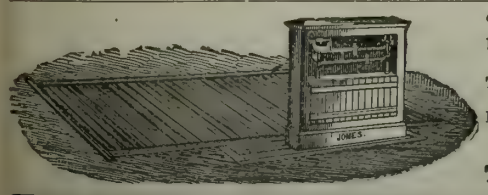
GEO. W. SHREVE. 525 KEARNY STREET, SAN FRANCISCO.



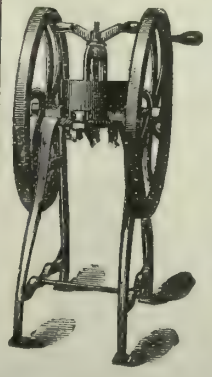
THE JONES 5-TON WAGON SCALE.
Price $66, Delivered Anywhere in the United States.
These Scales have STEEL BEARINGS, Not Wood—BEAR THIS IN MIND.
From 25 to 50 per cent cheaper than any other Scales of like quality. All sizes and kinds of Scales always in stock.
Truman, Hooker & Co., San Francisco

DEWEY & CO. {220 MARKET ST., S. F. Elevator, 12 Front.} PATENT AGENTS.

P.&B. IDEAL ROOFING. PRESERVATIVE PAINTS. BUILDING PAPERS. P.&B.

People who have been annoyed by the unpleasantness caused by leaky roofs, draughty rooms, and the like, enjoy undisturbed bliss after using our well-known products. Those who are as yet ignorant of their many merits can be enlightened by writing for samples and descriptive circulars, furnished free by

PARAFFINE PAINT CO.,
116 BATTERY ST., - - SAN FRANCISCO.



Mann's Green Bone Cutter

FOR POULTRY FOOD.

Patented June 15, 1886; August 20, 1889. Canada Patent, June 12, 1890.

WE WARRANT this machine to cut Dry or Green Bones, meat, gristle and all, by Hand Power, without clog or difficulty, or MONEY REFUNDED.

GREEN CUT BONE WILL DOUBLE THE NUMBER OF EGGS, will make them 25 per cent more fertile, and increase the vigor of the whole flock. COST OF FEEDING MATERIALLY LESSENED.

These Cutters are endorsed by all the leading California poultrymen. Send for a Catalogue describing all sizes of Cutters and containing vaulable information in relation to feeding green cut bones.

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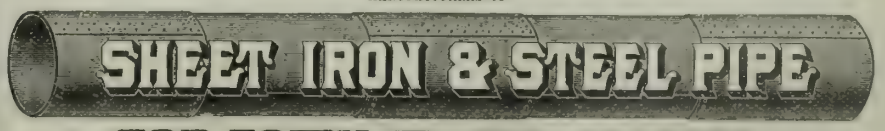
Pacific Coast Agents. PETALUMA, CAL.

FRANCIS SMITH & CO.,
MANUFACTURERS OF



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Hydraulic, Irrigation and Power Plants, Well Pipe, Etc., all sizes.

NO. 130 BEALE STREET, SAN FRANCISCO, CAL.

Iron cut, punched and formed, for making pipe on ground where required. All kinds of Tools supplied for making Pipe. Estimates given when required. Are prepared for coating all sizes of Pipes with a composition of Coal Tar and Asphaltum.

Rain Table for Sacramento, Prepared to 1878 by the late Dr. T. M. Logan and the late Dr. F. W. Hatch, and since 1878 by U. S. Weather Observer J. A. Barwick, Director State Weather Service.

Arranged according to seasons, showing the amount in inches of each month, during forty-one years, and for each rainy season, to Nov. 1, 1892; also the quantity for every month, and the annual amount of rain.

MONTHS.	1849	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893
September	0.250	0.000	1.000	0.003	0.000	sp'kle	sp'kle	sp'kle	0.000	sp'kle	0.045	0.063	0.000	0.000	0.003	0.004	0.080	0.000	0.006	0.000	sp'kle	0.000	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
October	1.500	0.000	0.180	0.000	0.005	1.010	0.000	0.195	0.656	3.010	0.000	0.914	sp'kle	0.355	0.000	0.120	0.480	0.001	0.000	0.000	2.130	0.020	0.210	0.220	0.310	2.250	0.440	3.820	0.690	0.385	0.758	0.000	0.483	2.630	0.370	2.010	0.020	0.640	0.000	0.000	0.000	0.000	0.000	0.000	0.000
November	2.250	sp'kle	2.140	6.000	1.580	0.650	0.700	0.651	2.406	0.147	6.495	0.181	2.170	0.095	1.490	6.718	2.427	2.436	3.806	0.774	0.830	0.930	1.920	1.930	1.210	3.801	6.206	0.320	1.120	0.415	1.400	0.000	1.720	3.250	0.610	0.000	11.340	0.210	0.150	4.980	2.150	0.000	0.180	.....	0.180
December	12.000	sp'kle	7.070	13.410	1.940	1.130	2.000	2.396	2.692	4.329	1.834	4.282	8.637	2.927	1.815	7.867	0.364	9.511	12.840	2.612	1.962	0.971	10.990	5.888	10.009	0.440	5.926	0.000	1.427	0.476	3.586	11.802	3.270	1.166	0.440	10.436	5.700	2.210	2.090	4.630	7.820	3.310	3.280	.....	0.070
Total	36.000	4.710	15.380	36.365	20.095	18.620	13.770	10.443	14.991	16.941	22.707	15.348	35.549	11.570	7.868	22.512	17.024	25.805	32.760	16.644	13.372	8.470	24.052	14.208	22.804	17.697	25.681	9.326	25.449	17.272	25.749	26.134	16.340	16.300	24.780	13.450	32.270	13.270	11.360	19.630	33.800	15.810	16.140	.....	1.248

Horse Power of Boilers.

It is a very common thing to hear men connected with steam plants speaking of the horsepower of their boilers, yet if they were asked to define what they meant by horsepower of boilers, there is no doubt but many of them would suddenly discover that it was somewhat difficult to define clearly just what they did mean, and for a very good reason. Strictly speaking, says the *Wool and Cotton Reporter*, there is no such thing as horsepower to a steam boiler, and in consequence the term horsepower of a boiler is a very vague expression. But as boilers have been found so far a necessity in driving steam engines, the same measure applied to steam engines has come to be universally applied to the boiler, and like a good many other such accidental definitions, cannot very well be discarded.

The unit of horsepower for boilers is not fixed except by arbitrary agreement among the parties concerned, the basis differing according to the nature of the work done by the steam. Many boilermakers rate the horsepower of the boilers by the number of square feet of heating surface contained in the boiler. Although this rule is followed by many, it is no criterion as between different styles of boilers—a square foot under some circumstances being many times as efficient as in others; but when the average rate of evaporation has been fixed upon by experiments in one boiler, there is no more convenient way of rating others of the same style. But by an outsider no exact rating of a boiler can be made from a knowledge of only its heating surface.

The following rules are observed in a good many boiler shops, and may be useful: For cylinder boilers nine square feet of heating surface per horsepower are allowed, for flue boilers 12 square feet, and for tubular boilers 15 square feet of heating surface per horsepower. Hence, if the total heating surface be known, divide it by 9, 12 or 15, according to the type of boiler, and the quotient will be the horsepower of the boiler. If a boiler is tested and a statement of its horsepower desired, without regard to whether it is to supply its steam to drive an engine or for other purposes, then it is agreed upon by the majority of experts to consider 30 pounds of water per hour, evaporated at 70 pounds pressure from 100 degrees, as a horsepower.

A standard was fixed by Watt at one cubic foot of water evaporated per hour from 212 degrees for each horsepower. This was at that time the requirement of the best engine in use. Most nations have a standard similar to and generally derived from Watt's horsepower, but owing to different standards of weights and measures, these are not identical, though the greatest differences amount to less than 1½ per cent.

The Care and Cleaning of Marble.

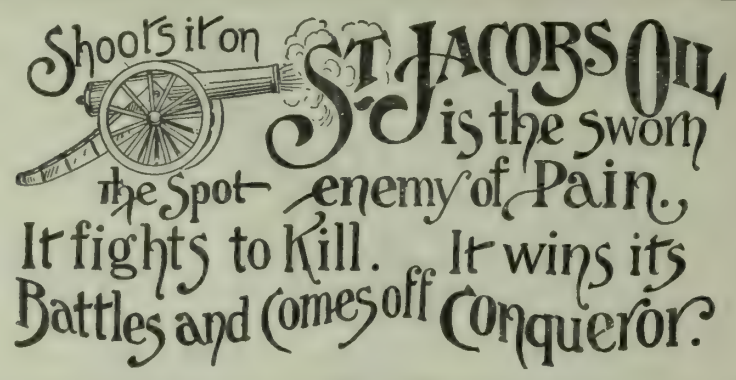
Marble, which is much less used than heretofore, has fallen somewhat into disfavor because of the difficulty of keeping it in order. It will become stained and spotted, and the average housekeeper seems not to understand how to put it in proper condition.

Grease spots are especially disfiguring, and stains are given up as hopeless. The first step in cleaning marble is to wash it thoroughly with clean water and a soft cloth. Every particle of dust, dirt or gumminess should be removed; then for the treatment of stains there are various methods. Some strong acids will remove such, but they are dangerous to use, as they will eat holes in the marble by dissolving the elements of which it is composed. Paint may be removed by pouring a quantity of chloroform over the spot and holding it in place by a thick cloth of linen or cotton.

It is said that blotting-paper saturated with chloroform laid over paint spots will absorb them, at least will so dissolve the ingredients that they may be washed out by sopping them up with the cloth and water. When the colored particles are taken out the oily portion is quite likely to come with it. If not cleaned, apply more chloroform.

Almost hopeless-looking paint stains have been entirely removed in this way without leaving a spot. If the marble is only ordinarily soiled or discolored, make a paste of common baking soda and water. Spread it thickly over the marble and allow it to stay for some hours, covering it with a damp cloth so that it will not dry too quickly. Leave it on over night; the next day wash thoroughly with clean water and polish with a bit of old wool-cloth or felt.

If marble is carefully washed once or twice in a month it rarely becomes dull or spotted unless by some accident, but when neglected it seems to grow spots, and becomes gray, and loses all of its brilliance and fine finish. —N. Y. Ledger.



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If you do not object to buying at a factory, we can SAVE YOU

40 Per Cent

On Rattan Chairs. Over Two Hundred Styles to show you.

CALIFORNIA RATTAN COMPANY,

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High Grade Rattan and Bamboo Furniture

ENTRANCE, 61 FIRST ST., NEAR MISSION,

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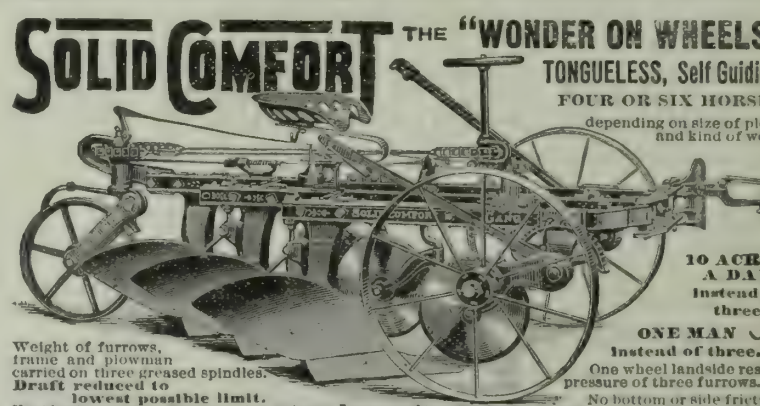
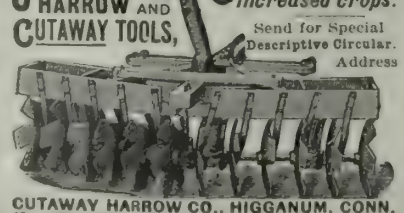


FARMERS who have used the CUTAWAY HARROW AND CUTAWAY TOOLS, —REPORT— increased crops.

Send for Special Descriptive Circular. Address



CUTAWAY HARROW CO., HIGGANUM, CONN.
New York Office, 18 Cliff St., New York City.

Gas Machine.

The new improved AUTOMATIC GAS MACHINES stand unequaled on the whole Pacific Coast for lighting country homes, suburban residences, hotels, etc. The light produced by these machines is Bright, Clean and Steady, but soft and soothing to the eye. Emitting No Smoke and being uniform, it has no equal for reading by. The cost is more than One-Half Less than coal gas anywhere, it being but $1 per 1000 cubic feet These Machines are sold at reduced rates, but every one is guaranteed to give entire satisfaction. Before purchasing elsewhere, call and examine them or send for illustrated catalogue at Nos. 43-45 Stevenson Street, San Francisco, California.

JACOB SCHREIBER, Manager.

THE FRUIT PEST EXTERMINATING CO.

OF SANTA CLARA COUNTY.

CAPITAL STOCK.....$10,000 PAID UP.
TELEPHONE 181.

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This Company is Sole Agent in this county for **PROF. W. H. BROWN'S INSECT EXTERMINATOR**, and is prepared to contract for the pruning and spraying of orchards. WARRANTED TO KILL all kinds of Scale, Woolly, Green, Plum and Hop Aphis, Cherry and Pear Slug, Cankerworm and Caterpillars, and in fact all insects injurious to the Trees, Shrubs, Plants or Vines, WITHOUT INJURY TO THE FOLIAGE ON TREES. **Indorsed by the State Board of Horticulture of Oregon.**

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THE SHARPLES RUSSIAN

LEADS THE WORLD ON SEPARATORS.

DOES NOT HEAT THE CREAM, BUT COOLS AND AERATES IT.

THE BOWL ALONE REMOVABLE.

NEED NOT AND CANNOT BE OILED WHILE RUNNING.

USES LESS THAN ONE-HALF THE STEAM OR FUEL OF ANY OTHER.

NO ENGINE, SHAFTING, BELTING.

THE CLOSEST SKIMMER IN EXISTENCE.

ELEVATES THE SKIMMED MILK AUTOMATICALLY.

IS DRIVEN BY THE DIRECT ACTION OF THE STEAM ON THE BOWL.

THE SIMPLE TURNING ON OR OFF OF THE STEAM VALVE STARTS OR STOPS THE SEPARATOR.

THE BOWL ENTIRELY EMPTIES ITSELF ON STOPPING.

NOTHING THAT CAN GET OUT OF ORDER ABOUT IT.

THE SHARPLES BELT POWER SEPARATORS

Are famous throughout America. Unequaled for amount and quality of work, and durability of wearing parts.

All sizes of these Separators constantly on hand. Send for Catalogue with full information.

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PEOPLE WANT THE EARTH

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—Only want to fence it in

The Lightest, Strongest, Cheapest and best Fencing in the World. 90 lbs. to 100 rods.

With the New Waukegan Steel Barbed Fence Wire,

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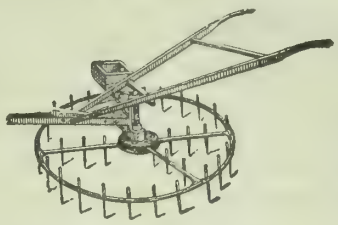
Engravings made from photographs, drawings and original designs, for newspaper, book, card and job printing. Engraved prints enlarged or reduced, cheaply and quickly. Also copies of manuscript, legal documents, wills, contracts, signatures, portraits, buildings, machinery and printed documents reproduced with accuracy. Photographs, stereoscopic views, etc., duplicated, enlarged or reduced. Slides for magic lanterns made from photographs lithographs, and steel or wood engravings, etc. Satisfaction guaranteed. Agents wanted in all cities and in all towns. Address, for further information, DEWEY ENGRAVING CO., 226 Market St., San Francisco.

Jackson's Rotary Vineyard or Orchard Harrow.

PRICE (five feet diameter), $25.

It has half-inch steel teeth, and is made to rotate either way by simply changing the cast-iron weight from one side to the other. The Harrow weighs 170 lbs., and can be taken down and packed closely for shipment.



The Jackson Vineyard Harrow rotates either way, at the will of the driver, and by driving the slow side next to the vine or tree there is no danger of hurting it, as the Harrow will roll gently around the tree or vine.

THE JACKSON VINEYARD HARROW was designed especially for vineyards and orchards, where very thorough and careful work is required. It was introduced to the orchardists in 1881, and perfected during that season. It is made of gas-pipe, bent round like a wheel, and made perfectly smooth on the outer rim, and presents no sharp corners to the trees or vines to injure them as it revolves. It is provided with handles, so the operator can hold it to or from the row. Every farmer should have one for his garden, and to level any uneven land, or fill up dead furrows. Every vineyardist or orchard owner should have a sufficient number to go over the whole ground in a short time. When the surface is just in proper condition, one day's work is worth a week's out of season. The Jackson Rotary Harrow is a perfect pulverizer, leveler, clod-crusher and weed-killer. It leaves the weeds on top of the ground—thoroughly shaken—to die.

BYRON JACKSON, 625 Sixth St., San Francisco, Cal.

AN OLD STYLE PULVERIZER.

Especially adapted to pulverizing "bottoms"—one man and a small boy can operate it.

THE LATEST STYLE

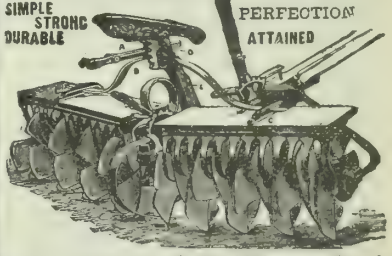
PULVERIZER!

—THE—

PACIFIC SPADER!

Operated by one small Boy. No Man required.

SOMETHING NEW! FINEST IMPLEMENT IN THE MARKET. SIMPLE STRONG DURABLE PERFECTION ATTAINED



The **Pacific Spader** and **Vineyard Cultivator.** Does more work in one stroke than a Disc Harrow in ten. Sizes, 5½ to 12 feet.

TRUMAN, HOOKER & CO.

SAN FRANCISCO and FRESNO.

—SIZES:—

No. 5D—	5½ foot	Spader	16-inch	Blades
No. 6D—	7 "	"	16 "	"
No. 10D—	5½ "	"	20 "	"
No. 14D—	7 "	"	20 "	"
No. 16D—	8 "	"	20 "	"
No. 20D—	10 "	"	20 "	"
No. 24D—	12 "	"	20 "	"

Linden, Cal., Nov. 26, 1892.

Messrs. Truman, Hooker & Co.,
San Francisco, Cal.

Gentlemen:-I was induced by your agent, Mr. I. O. Fowler, to purchase one of your PACIFIC SPADERS, which I have tested on some very hard land and must say it does its work to perfection. I will say to all who contemplate purchasing a Cultivator to take the Pacific Spader every time. I remain

Yours very truly,

C. V. Webb.

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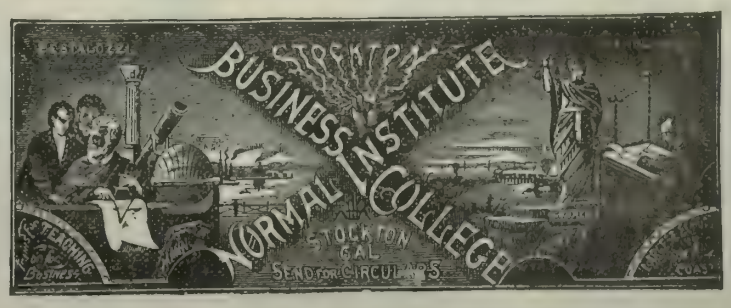
EXCELLENT BOARD $10 per Month.



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THE LEADING FEATURE OF THE SCHOOL IS ITS HOME.

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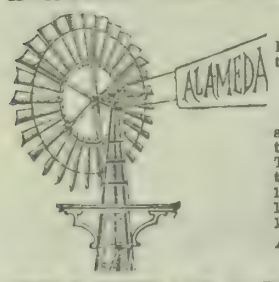
Windmills, Pumps, Etc.

ALAMEDA STEEL WIND MILL.



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Every One Guaranteed.

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10-foot.....$40 00
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WIND MILLS!

STEEL Wind Mills! Towers!

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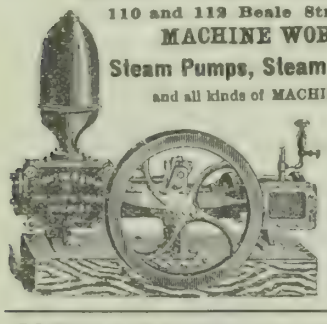
MACHINE WORKS,

Steam Pumps, Steam Engines and all kinds of MACHINERY.



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WELL MACH'Y *All Kinds, Water, Gas, Oil, Mining, Ditching, Pumping, Wind and Steam: Heating Boilers, &c. Will pay you to send 25c. for Encyclopedia, of 1500 Engravings.* The American Well Works, Aurora, Ill. also, Chicago, Ill.; Dallas, Tex.; Sydney, N. S. W.

STOCK SCALES

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U. S. STANDARD. FULLY WARRANTED.

Delivered at your R. R. Station and ample time for building and testing allowed before acceptance.

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PORTABLE PLATFORM SCALES, TRUCKS, ETC.

Twenty-five per cent cheaper than any other on the market. Send for Catalogue.

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SPRAY YOUR TREES!

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Do Either Successfully.

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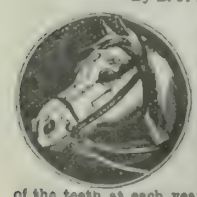
Treatise on the Horse and His Diseases.

By B. J. KENDALL, M. D.



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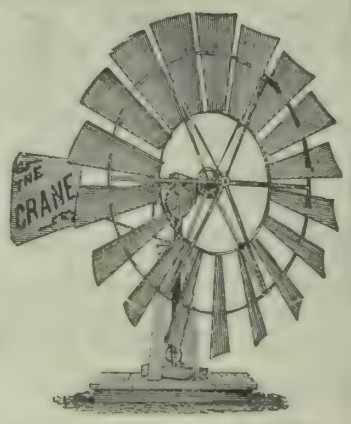

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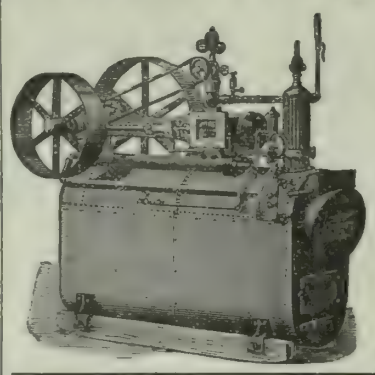

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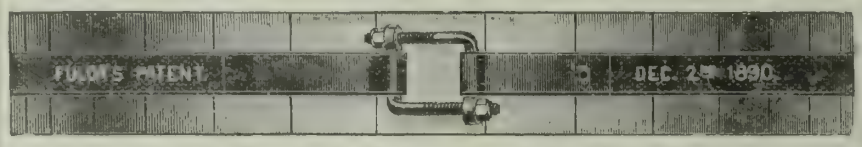

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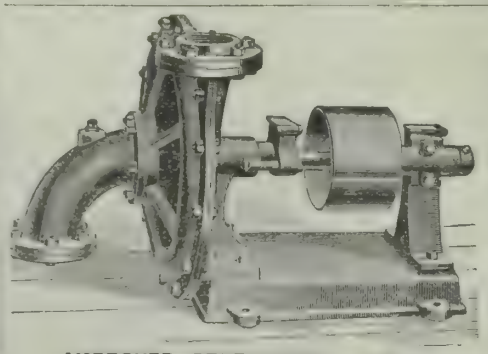

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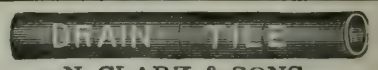

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S. F. Market Report

Market Review.

San Francisco, Dec. 14, 1892.

The weather has been all that could be desired for prosecuting outdoor work. So far as our information extends, plowing is being vigorously pushed in all grain-growing localities, while the cultivator is not in any way behind in the horticultural districts. If this weather holds for a few days longer, it now seems reasonable to assert that farmers will be well-advanced, and under favorable conditions, too, in their outdoor work. It is said that, as a rule, both plowing and cultivating is being done deeper and in a more systematic manner than ever before. If this is correct, it argues well for good returns in 1893. With strong competition in all directions, and the markets of the world in a strongly-depressed condition, only the best products will meet with quick sales and give fair returns; and it is only by thorough and the most scientific farming that farm products can be brought up to a high standard or grade.

General trade the past week in farm products has been quiet, with no new feature worthy of special notice. Trade has been confined largely to produce suitable for the holiday season, and, as is usually the case, grain, feed, etc., have been more or less neglected and only dealt in with the view of meeting daily or near-by requirements. The opening of the Baden stockyards has somewhat unsettled the fresh-meat market by ushering into the selling arena a most formidable competitor. From present appearances, it looks as if both stockmen and retail butchers will be benefited—the former through competition buying and the latter through competition selling.

The local money market is reported close, with collections slow. While this is the refrain among dealers, the banks report larger reserve funds than are usually held even in trying times. Although the reserves are large, yet there does not appear any disposition to let money out on term loans, but call or demand paper of a gilt-edged character is quickly taken. It is the fear and uncertainty regarding the future which cause this strong conservative feeling.

Cereals.

European mail advices report that the Russian wheat crop was less than had been estimated, yet this had no effect on the market owing to the depressed condition of trade the world over, and also the uncertainty regarding silver, which has a large bearing on the money markets of the world. From Australia, Hungary and Germany our advices report that winter seeding was done under favorable circumstances, and the plant had a good stand with which to withstand the rigor of a severe winter. While giving this information, yet it was conceded that the outlook promised a falling off in the acreage of winter and spring seeding, taking all countries as a whole. Eastern advices continue to report a large visible supply of wheat—the last report giving the quantity at over 75,000,000 bushels. It must not be forgotten that this season there has been a large increase in the number of elevators reporting stock; besides the roads were frozen and farmers' deliveries have been facilitated. For two years past the roads were, as a rule, in poor condition and therefore farmers' deliveries were light.

In the local market wheat has been dull, with buyers offish. It is said that there will be very little new business until after the holidays. This opinion is grounded on information that in Europe the Exchanges will soon adjourn for a week's vacation, and besides, during December foreign buyers do not like to operate. It is said that the mills in this State, or at least those belonging to the trust, are limiting their output of flour, and therefore are not in the market for wheat, and will not be until toward the middle of January. With exporters and millers out of market, the bears have it their own way, but their bids are too low.

Barley has been unduly depressed. The increased stock in this State is used to hammer futures down, and cash or spot parcels follow futures. There is a fairly steady consumption and shipping demand for the month of December. The opinion prevails that there will not be any material change in the situation before the turn of the year, and as values have sunk to very low levels, the change will probably be for the better. European and Eastern advices indicate good prices in the opening. Oregon and Washington are not sending us supplies this season.

The receipts of oats have been light, which caused the markets to retain a fair degree of steadiness. For seed purposes black are in good demand

Corn has ruled weak, but holders did not appear to press sales, which kept values from sinking to lower figures. The supply in this State is light.

Rye and buckwheat are dull, but with no strong selling pressures, values have been maintained.

Feedstuff.

Although the output of bran and middlings is light, yet the market rules weak, particularly for the former. This is due to a falling off in the demand, owing to improved pastures. Ro led and ground barley is said to be meeting with a free consumption, owing to the comparatively low prices. Cracked and feed meal move slowly.

Choice grades of hay are in better demand, and as receipts are light, a slight advance is obtainable Good grades, while stronger, are no higher. The poorer grades are barely steady. With an increased attention to outdoor work, the consumption has enlarged and stocks in the city are consequently smaller. The cold weather has called for freer feeding by stockmen and dairymen and others who are in the cold belt.

Dairy Produce.

Butter, after advancing slightly, appears to be again on the down grade. At the advance in the price of choice to gilt-edged dairy and creamery, dealers turned largely to pickled, owing to the wide difference in prices. With the retail trade buying pickled and the receipts of fresh roll showing an increase, holders began to press sales. The market closed weak, with buyers confining their purchases, as far as possible, fearing still lower prices. The output of the bay and lower coast counties is said to be increasing.

Cheese has held to fairly firm prices, with gilt-edged new mild still scarce. Sales in a small way are made at an advance over outside quotations, but consignment parcels are not readily placed higher. Old cheese is slow.

Eggs are irregularly firmer for more choice selected of both Eastern and Californian. The receipts are larger, but this is met by an increasing demand for the holiday trade.

Vegetables.

Frosts have cut off the supply of string and Lima beans. Mushrooms are in light supply. Asparagus and rhubarb did not put in an appearance the past week. Cauliflower is higher, but other vegetables are essentially unchanged.

Onions have come in more freely. The demand is fair for both shipping and local.

Under heavy receipts potatoes shaded off, but at the close there appears to be a steadier tone, with some buying of Early Rose for storing. Poor, trashy stuff is hard to place, with quotations largely nominal, but choice to gilt-edged are moved more readily.

Fruit.

Apples are essentially unchanged. The more choice, high-colored Siskiyou Spitzenberg sell at from $2@2 25, but as these are outside figures they hardly form a basis for quotations. Lady apples sold up to $3 for something that was gilt-edged. Poor apples are a drug and hard to move, but choice to gilt-edged find ready buyers. Poor pears are low, but choice are wanted. Grapes are hard to move, as are persimmons.

In citrus fruits, the market is essentially unchanged for limes and lemons, but unripe oranges are low and hard to move. The supply of green oranges is very heavy, but of ripe, high-colored the market is bare, and when found they sell at an advance on quotations. No Fresno oranges are coming in owing to the prices they bring—$3 a box for seedling—so say Wetmore Bros. E. J. Baldwin is sending in seedlings from his grove at San Gabriel.

The market for dried fruit is reported by Rosenberg Bros. more active, with an advance obtainable for the more choice grades of apples, apricots, peaches and nectarines. From all the writer can learn, the buying prices of to-day were the asking prices of a week ago. Thomas Flint's up-put of apricots in 24-pound boxes was sold by the Grangers' Business Association for 14 cts. They were not sulphured. Last year the same grade was sold at 5½ cts. Some good to choice black figs sold at from 90c @$1 a box. Raisins, unless choice to gilt-edged, are slow and largely in buyer's favor.

Live Stock.

The market for bullocks is firmer, with a slight advance obtainable. Mutton sheep are steady. Hogs are strong and in good request. Farmers in killing for this market should exercise considerable care in butchering, for often by an injudicious stab the price is depreciated fully one cent per pound. Dairy calves are firm and wanted.

Miscellaneous.

The market for poultry has gone from bad to worse under heavy receipts of both Eastern and Californian. This applies to everything, except ducks and geese. It is said that large quantities of dressed turkeys have gone into cold storage. The market is in poor shape for next week, unless receipts should fall off. W. C. Price & Co received the past week a consignment of young gobler bronze turkeys from Mr. Strickler, of Bakersfield, Kern Co., that weighed dressed from 18 to 26 pounds each.

Soft and paper-shell almonds are doing better, as are Brazil nuts. Hard-shell walnuts are hard to move. Other nuts are unchanged.

There is a very strong bear pressure on hops, but the most reliable private advices received from England point to better prices after the turn of the year.

Wool is slow, with no assortments to draw from.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending Dec. 13, '92, were as follows:

Flour, qr. sks	58,712	Bran, sks	4,143
Wheat, ctls	187,595	Buckwheat "	....
Barley, "	33,772	Middlings "	1,748
Rye, "	1,572	Chicory, bbls	25
Oats, "	3,062	Hops, "	199
Corn, "	4,696	Wool, "	73
*Butter, "	348	Hay, ton	1,198
do bxs	260	Straw, "	104
do bbls	....	Wine, gals	199,448
do kegs	12	Brandy, "	11,940
do tubs	...	Raisins, bxs	71,923
do ½ bxs	....	Honey, cs	40
†Cheese, ctls	437	Peanuts, sks	132
do bxs	65	Walnuts "	....
Eggs, doz	18,620	Almonds "	97
do "Eastern	73 680	Mustard "	....
Beans, sks	11,885	Flax "	....
Potatoes, sks	37,992	Popcorn "	....
Onions, "	2,333	Broom corn, bbls	....

*Overl'd, ... ctls. † Overland, 531 ctls.

Tonnage Movement.

From reliable advices up to Dec. 13, the following summary tonnage movement is compiled:

	On the way 1892	On the way 1891.	In port 1892.	In port 1891.
San Francisco	261,874	310,963	*183,581	158,891
San Diego	9,[illegible]97	19,068	7,126	.....
San Pedro	6,511	3,587	1,670	} 36,956
Oregon	38,908	63 179	13,938	
Puget Sound	19,078	27,543	.....	
Totals	335,968	424,880	205,315	195,847

*Engaged for wheat, 1892, 29,493; 1891, 113,912.

Exports by Sea from San Francisco from July 1 to Dec. 8.

	1892-93	1891-92
Wheat, ctls	5,259 465	7,332,182
Flour, bbls	589,576	511,524
Barley, ctls	893,114	754,703

Stocks of Grain.

The San Francisco Produce Exchange reports the following stocks of grain in this State on Dec. 1, 1892, in comparison with former stock-taking dates:

LOCATION.	Flour, bbls.	Wheat, ctls.	Barley, ctls.	Oats, ctls.	Beans, sks.	Corn, ctls.	Rye, ctls.
San Francisco and Oakland wharf, including grain and flour afloat in harbor and in transit	10,250	351,496	524,991	151,133	.....	.....	2,746
Sonoma, Humboldt, Napa, Solano, Yolo, Colusa and Glenn Cos	17,380	2,586 120	349,610	27,935	.....	.....	50
Sacramento, Yuba, Sutter, Butte and Tehama Counties	22 939	1,653,931	159,175	14 225	.....	.....	.....
Contra Costa and Alameda Counties	11 450	2,458,230	409,790	4,120	.....	.....	.....
San Joaquin, Stanislaus, Merced, Fresno, Tulare and Kern Cos	14,605	4,129,175	578,528	5,190	.....	.....	.....
San Luis Obispo Counties	.....	.....	.....	.....	.....	.....	54,380
San Mateo, Santa Clara, San Benito, Santa Cruz, Monterey and Santa Barbara, Ventura, Los Angeles, Orange, San Bernardino and San Diego Counties	6,560	498 850	993,460	60,220	.....	.....	532
Totals	92,024	10,158,772	3,797 654	283,243	128,182	283,256	57,658
June 1, 1892	120,517	2,100,149	913,049	48,786	92,837	39 545	5,831
Dec mb r 1, 1891	140,043	9 964,575	2 8-3 602	163 401	275 126	14,136	10,215
June 1, 1891	121,186	1,826 582	352,832	45 074	46 632	76 738	37,150
December 1, 1890	118,123	12,163 993	1,616,655	61,085	174 291	302,921	16,892
June 1, 1890	81,090	4,811,063	1,004,467	61,235	39,503	91,111	66,640
December 1, 1889	116,235	15,300 368	3,321,860	120 356	107,419	133,916	10,215
June 1, 1889	100,565	2,092,430	2,052,630	119,245	60,415	38,925	39 545
December 1, 1888	95,906	10,819,630	4,087 050	120,175	235,320	266,747	7,040
June 1, 1888	71 920	3,881,960	2,063,450	63,095	33,675	82,200	800
January 1, 1888	69,979	9,730,060	4,622,990	65,380	109,925	121,300	4,350
July 1, 1887	50,275	2,790,400	798,500	42,400	74,405	72,830	1,350

Markets by Telegraph.

Choice Raisins Are Firm.

New York, Dec. 11.—The market for raisins has ruled rather irregular, and outside prices are only obtainable for strictly perfect parcels. A round sale of Three Crowns in bags at 4½c did not help the week's tone any. At the close, selected Three Crown, big, sold at 4⅞@5c; Two Crown, good to best, 3½@4c; wets, 2@3c; boxes, Three Crown, $1.25@1.40; W grade and wet, $1.12@1.15; layers, prime, $1 55@1.60; fancy, $1.80@2.25. Supplies of California are materially under this date of last year, but their weight is intensified by the situation of easy-priced foreign. It is understood that coast shippers intend to regulate deliveries here for a time; this would be judicious until our market is in better shape for big blocks than now. The receipts of California raisins at New York this season equal 281,000 boxes for local trade and 345,000 for New England.

California Dried Fruit.

New York, Dec. 11.—Unpeeled peaches are low; 12c is paid for what has to be called choice, since the receipts have been so much overhauled; fancy brings 14@15c, and fine peeled in lots 22@24c. The offering of prunes is abundant for the moment, and prices are rather in buyer's favor; four sizes, 10¾@ 11c. Evaporated pears in bags, 12@14c for peeled, and 6@9c for unpeeled. These goods are never very popular here. Commercially canned and home-preserving about fill the bill. Apricots are about used up, selling for 15@17c.

Hop Holders Are Confident.

New York, Dec. 11.—The local market for hops is quiet; State country points absorb the export demand, and evidently make attractive terms for brewers. Spot holders, however, express no pressure to sell, as stocks are not unweildy, and they can undoubtedly make full current rates when winter transportation runs less smoothly. Last quotations cover all transactions with outside points less frequently named. Foreign imports to date are quite as free as last year. Exports, 670 bales.

Stocks of Wool Are Light.

New York, Dec. 11.—The wool market is quiet, but our assortments are down quite low and do not invite buyers. At Boston and Philadelphia, a pause is noted in the demand from large manufacturers, but it does not produce weakness in holders' views. Stocks at the seaboard are estimated something below this date last year. Little interior wool is visible, and mill wants are known to be of increased volume. This, and a firm tone in English markets, are favorable incidents for sellers. Sales at New York, 153,000 pounds of domestic and 239,000 pounds of foreign; sales at Boston, 2,191,500 pounds of domestic, and 766 000 pounds of foreign, of which 395,000 pounds was Australian and 50,000 English.

Unprecedented Low Price for Wheat.

London, Dec. 12.—Mark Lane *Express* says: The record for the past week was no brighter. English wheat sells at 27s, a price unprecedented within the memory of English farmers. American and Russian wheats declined 1s and Indian 3d. Australian and Chilian wheats sell at previous prices, but stocks of spot grain from these sources are nearly exhausted. Stocks of foreign flour are estimated at 300,000 quarters. American wheat was offered in London at 23s, delivered, and it is difficult to see how exports can continue with this price ruling. Household flour in London sells for 25s, a decline of 10s on the year. The profit in flour has gone almost wholly to the bakers. On the 9th inst. Minnesota sold for 19s.

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	Dec.	Jan.	Feb.	Mar	April.	May.
Thursday	5s 8 d	5s08¾d	5s09¾d	5s10¾d	5s11¾d	6s0¼d
Friday	5s08¼d	5s08¾d	5s0.¾d	5s10¾d	5s11¾d	6s0¼d
Saturday	5s08¾d	5s09 d	5 10 d	5s11¼d	5s11¾d	6s00¾d
Monday	5s05¾d	5s09 d	5s10 d	5s11¼d	6s00 d	6s01 d
Tuesday	5s08 d	5s08¾d	5s09¾d	5s10¾d	5s11¼d	6s00¼d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. O.	P. S.	N. D.	Market for P. S
Thursday	31s6d	31s9d	31s6d	Quiet
Friday	31s3d	31s6d	31s3d	Dull
Saturday	31s 3d	31s6d	31s6d	Steadier
Monday	31s3d	31s6d	31s3d	Higher prices asked
Tuesday	31s0d	31s3d	31s3d	Weaker

To-day's cablegram is as follows

Liverpool, Dec 14.—Wheat—Buyers hold off, hoping to obtain some concessions. California spot lots, 6s 6d; off cost, 30s 6d@30s 9; just shipped, 3.s; nearly due: 30s 6d@ 3 s 9d; cargoes off coast, slow; on passage quieter, Mark Lane wheat, quiet.

San Francisco.

WHEAT.

	Buyer Dec	Jan.	May
Thursday, highest	1 26¼	....	1 31½
" lowest	1 26	....	1 30½
Friday, highest	1 25½	....	1 31
" lowest	1 25⅜	....	1 30⅝
Saturday, highest	1 26½	....	1 31¼
" lowest	1 25⅝	....	1 31⅛
Monday, highest	1 26¾	....	1 31¼
" lowest	1 26½	....	1 31½
Tuesday, highest	1 26½	....	1 31½
" lowest	1 25½	....	1 30½

The following are to-day's recorded sales on Call:

Wheat—Morning—Informal: May, 100 tons, $1.30½; 120 0, $1.30¼. Buyer December—100 tons, $1.25⅝ ℔ ctl. Regular Session: May—100 tons, $1 30½; 100, $1 30⅜; 31 0, $1 30¼. Buyer December—100 tons, $1.25⅝; 400, $1.25⅜; 300, $1.26 per ctl. Afternoon—Wheat—May 200 tons, $1.30½; 1400, $1.30⅜; 1200, $1.30⅛. Buyer December—200 tons, $1.26; 400, $1.26¼ per ctl.

BARLEY.

	Dec.	Jan.	May
Thursday, highest	*83¾	84½	88¾
" lowest	83	83½	87½
Friday, highest	82½	83¼	8 ¼
" lowest	81	81½	84½
Saturday, highest	....	81⅝	84⅝
" lowest	....	81⅝	84⅝
Monday, highest	....	....	*85
" lowest	....	....	*85
Tuesday, highest	*81½	81¾	85½
" lowest	*81½	81¾	8.¼

*Buyer option.

The following are to-day's recorded sales on Call:

Barley—Regular Session: No sales. Barley—May: 100 tons, 85⅝ per ctl.

Eastern Markets.

The following shows the closing prices per cental of wheat for the past week at

New York.

Day.	Dec.	Jan.	March.	May.
Thursday	128½	129½	134	137
Friday	129	130	134½	137¾
Saturday	128¾	130	134½	137½
Monday	128½	129½	134	137
Tuesday	128	129	133	136

The following is to-day's telegram—per bushel:

New York, Dec. 14. Wheat, 76½c for December, 77c for January, 79½c for March and 81½c for May.

Chicago.

Day.	Dec.	Jan.	May.	July
Thursday	119½	122	131	129
Friday	120	122	131	129¼
Saturday	121	122¾	131	129¼
Monday	120	122	131	129½
Tuesday	119½	121	13.½	128

The following is to-day's telegram—per bushel:

Chicago, Dec. 14.—Wheat, 71½c for December and 78½c for May.

General Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

DECEMBER 14, 1892.

BEANS AND PEAS.

Bayo, ctl	2 25 @	2 35
Butter	2 50 @	3 00
Pea	2 50 @	2 60
Red	2 40 @	2 50
Pink	2 00 @	2 05
Small White	2 45 @	2 55
Large White	2 25 @	2 35
Lima	2 75 @	3 00
Fld Peas, blk eye	1 60 @	—
Do green	1 75 @	2 00
Do Niles	1 60 @	1 75
Split	4 50 @	5 50

BUTTER.

Cal., poor to fair, lb	15 @	—
Do g'd to choice	22½@	—
Do Giltedged	— @	32½
Do Creamery	27½ @	—
Do do Giltedge	— @	35
Eastern, lad.e	12½@	—
Cal. Pickled	20 @	—
Cal. Keg	20 @	—
East'rn Cr am'y	25 @	—

CHEESE.

Cal. choice cream	9½@	—
Do fair to good	8 @	—
Do Giltedged	— @	11½
Do Skim	5 @	6½
Young America	— @	11½

EGGS.

Cal. "as is," doz	20 @	—
Do shaky	15 @	—
Do candled	30 @	—
Do choice	32½@	—
Do fresh laid	— @	35
Do do s'ed white	— @	37½
Eastern cold-storage	20 @	—
Do fresh	25 @	—
Do selected	— @	32½

Outs de prices for selected large eggs and inside prices for mixed sizes—small eggs are hard to sell.

FEED.

Bran, ton	13 00@	14 00
Feedmeal	25 00@	26 00
Gr'd Barley	19 00@	19 50
Middlings	— @	21 00
Oil Cake Meal	— @	35 00
Manhatan Horse Food (Red Ball Brand) in 100-lb. Cabinets	— @	8 00

HAY.

Compressed	7 00 @	11 00
Wheat, per ton	8 50@	—
Do choice	— @	13 50
Wheat and oats	8 00@	11 50
Wild Oats	7 00@	10 00
Cultivated do	6 00@	9 00
Barley	6 00@	8 00
Do choice	8 00@	10 00
Alfalfa	8 00@	10 00
Clover	8 00@	10 00
Straw, bale	35@	50

GRAIN, ETC.

Barley, feed, ctl	75 @	—
Do good	80 @	—
Do choice	85 @	—
Do Brewing	90 @	—
Do do choice	93¾@	—
Do do Giltedge	97½@	—
Do Chevalier	80 @	—
Do do Giltedge	1 15 @	—
Buckwheat	2 25 @	—
Corn, white	1 07½@	1 10
Yellow, large	1 00 @	—
Do small	1 07½@	1 10
Oats, milling	1 37½@	—
Feed, choice	1 33¾@	—
Do good	1 30 @	—
Do fair	1 20 @	—
Do common	1 10 @	—
Surprise	1 45 @	—
Black feed	1 05 @	1 15
Do seed	1 17½@	1 30
Gray	1 30 @	—
Rye	1 12½@	1 17½
*Wheat, milling		
Giltedged	1 31½@	—
Do choice	1 28¾@	—
Do fair to good	1 27½@	—
Shipping, choice	1 27½@	—
Do good	1 25 @	—
Do fair	1 22½@	—
Common	1 20 @	—
Sonora	1 20 @	1 30

HOPS.

1892, fair	17 @	—
Good	19 @	—
Choice	20 @	—

FLOUR.

Extra, city mills	3 90 @	—
Do country m'ls	3 90 @	—
Superfine	2 50 @	3 00

NUTS—JOBBING.

Walnuts, hard shell, Cal. lb	6 @	8
Do soft shell	8 @	9½
Do paper-shell	10 @	12
Almonds, soft sh'l	12 @	13½
Paper shell	13 @	15
Hard shell	6 @	—
Brazil	11 @	12½
Pecans, small	8 @	10
Do large	14 @	16
Peanuts	3½@	4
Filberts	10 @	—
Hickory	7 @	8
Chestnuts	13 @	14

ONIONS.

Silverskin	75 @	90

POTATOES.

River Reds	45 @	55
Early Rose, ctl	55 @	65
Peerless	60 @	70
Garnet Chilies	65 @	75
Burbank Seed's	50 @	70
Do do Salinas	90 @	1 30
Do do Oregon	80 @	1 10
Sweet	50 @	75

Extra choice sell for more money

POULTRY.

Hens, doz	5 00 @	6 00
Roosters, old	5 00 @	6 00
Do young	5 00 @	5 50
Broilers, small	2 00 @	3 00
Do large	3 00 @	4 00
Fryers	3 50 @	4 00
Ducks	4 50 @	5 00
Do large	5 50 @	6 50
Do extra large	6 50 @	8 00
Geese, pair	1 50 @	2 25
Turkeys, gobl'r.	13 @	14
Turkeys, hens	13 @	14
Do dressed	14 @	17

All kinds of poultry, if poor or small, sell at less than quoted; if large and in good condition, they sell for more than quoted.

Manhattan Egg Food (Red Ball Brand) in 100-lb. Cabinets	— @	11 50

GAME

Quail, per doz	75 @	1 00
Ducks	— @	—
Do Mal'd ℔ doz	3 50 @	4 00
Do Sprig	2 25 @	3 00
Do Teal	1 50 @	—
Do Widgeon	1 50 @	—
Do small	1 25 @	—
Geese	— @	—
Do gray ℔ doz	2 00 @	3 00
Do White	1 00 @	1 50
Do Brant	1 25 @	1 75
Snipe	— @	—
Do English, doz	1 50 @	2 00
Do Jack, per doz	75 @	1 25
Hare, per doz	1 25 @	1 50
Rabbits, large	1 25 @	1 50
Do small	1 00 @	1 25

PROVISIONS.

Cal. bacon, heavy, per lb.	12 @	—
Medium	13 @	—
Light	14 @	—
Lard	9½@	12½
Cal sm'k'd beef	11½@	—
Hams, Cal salt'd	13 @	—
Do Eastern	14 @	—

SEEDS.

Alfalfa	9½@	10
Clover, Red	15 @	—
White	30 @	—
Flaxseed	2 25 @	—
Hemp	4½@	—
Mustard, yellow	7 @	—
Do brown	4½@	—

WOOL.

FALL, 1892.

S Joaquin, plain	6½@	10
Do mountain	10 @	12
Do lamb	8 @	10
Northern Choice	14 @	—
Do Detective	11 @	—
Do Lamb	10 @	14

HONEY—1892 CROP.

White comb, 2-lb frame	9 @	12½
Do do 1-lb frame	11½@	14½
White extracted	7½@	—
Amber do	6½@	—
Dark do	6½@	—
Beeswax, lb	23 @	—

Dried Fruits.

The quotations given below are for average prices ceived by commission merchants for consignments by growers. Something very fancy fetches an advance on the highest quotations, while poor sells slightly below the lowest quotations. Prices, unless otherwise specified are for fruit in sacks; add for 50-lb. boxes ½c per lb. and for 25-lb. boxes ¾ to 1c per lb.

APPLES 1892.		Do do fancy	— @16
Sun-dried, ¼'s	4½@—	Evap., peeled, in boxes choice	18½@—
Do sliced	4½@ 5	Do do fancy	20 @21
Evap. bl., ri g, 50-lb. bx	8 @ 9	PLUMS—1892.	
Fancy, higher.		Pitted, sun-dr ed	10 @10½
APRICOTS—1892.		Do evap. boxes, choice	11 @ 12
Do bleached	15½@—	Unpitted	4 @ 5
Do do fancy	15 @16	PRUNES—1892.	
Evap choice, in boxes	15 @16	Cal. French, ungraded	7½@ 8
Do fancy, do	15½@17	Do graded, 60 to 100	9½@10
FIGS—1892.		Do do 40 to 60	11 @12
Sun-dried, black	4 @—	Fancy sell for more money.	
Do white	3¼@—	RAISINS—1892.	
GRAPES—1892.		London Layers, cluster per box	1 90 @2 00
Sun-dried, stemless	2½@ 3	Do choicest do	1 50 @1 60
Do unstemmed	½@ 2	Do prime pr bx	1 25 @1 40
NECTARINES—1892.		Loose Muscatels, 2-crown, pr bx	75 @1 00
Red, sun-dried	7 @ 8	Do 3-crown do	1 10 @1 20
Do Evap., in boxes	11½@12	Do do do faced	1 20 @1 25
White, sun-dried	9½@11	Unstem'ed Muscatels in sks pr lb.	2½@ 3
Do evaporated	12½@13	Stem'ed 2-crown.	2¾@ 3
PEARS—1892.		Stem'ed 3-crown	3½@ 4½
Sun-dried, quarters	2½@ 3	Sel'd's M'sc't'ls sks	4 @ 5
Do sliced	4 @ 5½	Do do in bxs	— @1 00
Evap., slic'd, in b'xes	7 @ 8	Do Sultanas, sks.	6 @ 7
Unp'led, q'r't'd, bl'ch'd	5 @ 8	Do do bxs	— @1 40
PEACHES—1892.		Halves, quarters and eighths 25, 50 and 75 cents higher respectively than whole boxes.	
Sun-dried, unpeeled	7 @ 7½		
Do do prime, bl ched	9 @10		
Do do choice, do	11 @11½		
Sun-dr., pl'd, bl'ched	10 @11		
Do do prime	14 @—		
Do do choice	— @15		

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

DECEMBER 14, 1892.

Limes, Mex	3 00 @	4 00
Do Cal	— @	—
Lemons, box	3 50 @	4 50
Do Sicily choice	7 00 @	8 00
Apples	40 @	65
Do Choice	75 @	1 25
Do Extra choice	1 50 @	1 75
Grapes, pr bx	15 @	85
Pears	25 @	75
do Winter Nelis	1 00 @	1 75
Persimmons	50 @	1 00
Oranges, pr box		
Navels, River'de	3 50 @	4 50
Do, Butte Co	— @	—
Seedling, River'de	2 00 @	2 75
Do, Fresno	2 75 @	3 00
Do, Butte Co	2 50 @	2 75
Extra choice fruit for special purposes sells at an advance on outside quotations		
Beets, sk	— @	50
Carrots, sk	30 @	50
Okra, dry, lb	8 @	10
Parsnips, ctl	1 00 @	1 50
Peppers, dry, lb	7 @	8
Turnips, ctl	— @	60
Cabbage 100 lbs	40 @	50
Garlic, ℔ lb	1½@	2½
Marfat Squash, ℔ ton	5 00 @10 00	
Cauliflower	75 @ 1 00	
Celery	50 @	75
Mushrooms, ℔ lb		
Do, Common	8 @	15
Do, Button	20 @	25

Land-Clearing Scene.

The engraving herewith presented shows the California Stump-Puller at work on redwood stumps on the farm of C. E. Ogburn on Russian river, near Guerneville, and being made from a photograph, is a truthful representation of the machine operating on this class of work. This machine seems to be one that creates an unavoidable demand for itself, as it would be utterly impossible for men to resort to the old method of hand-grubbing and compete with those using this machine; and from British Columbia to Arizona, wherever it has been introduced, we hear the most favorable reports, one of which is given below:

Stump-Pulling.

From the Island Co. (Wash.) Sun.

Stump-pulling on this Island, as well as in the Puget Sound country in general, is in its infancy, and we should hail with gratitude any progress made in improving machinery for removing stumps from these fertile lands. The California Stump-Puller, manufactured by George Harvey, of San Francisco, without doubt stands at the head of the list of stump-pulling machinery. One of these machines is now on this Island, owned by E. F. Hill, near Oak Harbor, on whose ranch it and its work can be seen. It is simply a capstan worked by one horse, with a wire cable five-eighths of an inch in diameter, and block, chains, and a draft-hook to unite the cable with the chains. To the uninitiated it may seem that any capstan, any cable or blocks, or any chain, would answer this purpose; but it is not so. The capstan needs special features of construction to adapt it to work of this kind. The cable-block and chains should be as light as possible, and have sufficient strength to arrange and adjust all of these things in a manner to get the best results from them, which is not the work of a day.

Stump-pulling machinery is Mr. Harvey's specialty, and though he is now ahead of all competitors, yet he is ever on the alert for any improvement. He is one of those who does not claim perfection, but is determined to crowd as close to it as possible. The work now being done on Mr. Hill's ranch shows how well this machine does its work. If the stump is not so old that the roots are rotten, all of the roots come with the stump, and the work is done very rapidly. The blocks are so constructed that to place the wire cable in them requires not a few minutes but only a few seconds, and also to make the connection between any part of the wire cable and the chain is but the work of a few seconds with Mr. Harvey's draft-hook. Mr. Hill considers that this machine will pay for itself in clearing but a very few acres of land, and many of them are needed on this Island and all over the Puget Sound country.

The Farmer and Politics.

The prosperity of a farmer to-day depends more on the methods he employs than on governmental rule. Take seeds for an example: Many farmers who are alive to their own interests in other things are careless in buying seeds. They seem to think that a seed is a seed and there it ends. If there was more knowledge about seeds, and greater care exercised in their selection, there would be richer crops and better returns.

Realizing this, D. M. Ferry & Co., the famous seed firm of Detroit, Mich., have embodied in their Illustrated Annual for 1893 much valuable information about seeds and their selection. It contains the knowledge gleaned from many years practical experience in the seed business, and the newest and best things about gardens and gardening. Such a book issued by a firm of unquestioned reliability is of the highest value to every one who plants a seed. Although the cost of printing and embellishing it with beautiful illustrations has been great, it is sent free to any one making application to the above firm.

Luck in Seeds.

"I didn't have very good luck with my seeds last year," a farmer was heard to say. This gives rise to the question: How many poor crops can be attributed to "luck" in the selection of seeds? Buying seeds is an important factor in farming and should receive the careful judgment and consideration of the farmer. It is almost always impossible to distinguish the good from the bad in seeds by sight, and the only infallible guide for the planter is the reliability of the seedsman. D. M. Ferry & Co., of Detroit, Mich., have for many years been the leading seed house of this country, and their reliability is unquestioned. They issue a book annually which contains a complete digest of the very latest gardening knowledge by the best authorities. The 1893 edition is handsomely illustrated and contains information about the selection and planting of seeds which will prove of the greatest value to every one planting a garden or farm. It is mailed free to any one making application to the firm's address.

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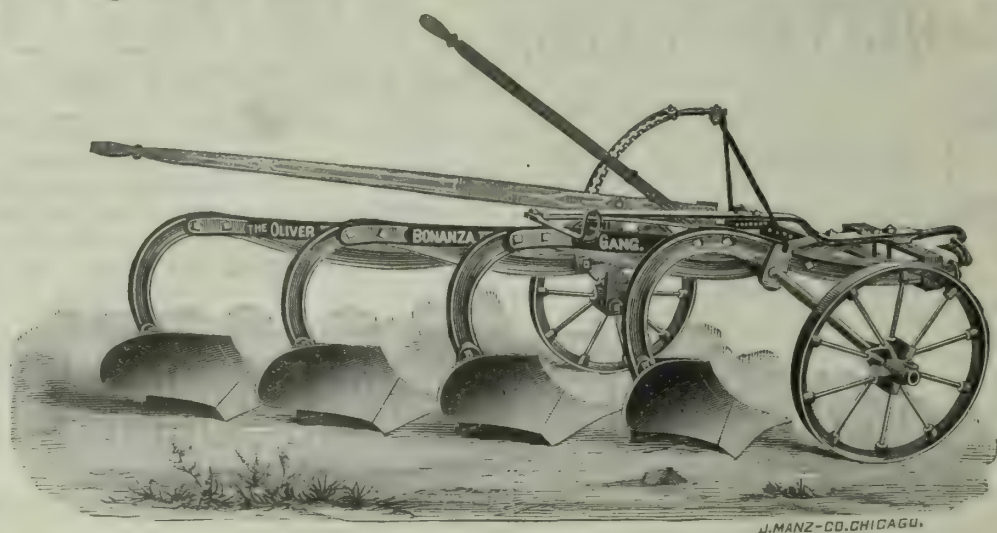

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PACIFIC RURAL PRESS

Vol. XLIV. No. 26. SAN FRANCISCO, SATURDAY, DECEMBER 24, 1892. THE DEWEY PUBLISHING CO. Office, 220 Market St.

California Christmastide.

Again the holiday season comes to us arrayed in sunshine and fragrant with flowers. Not for us is the Christmas environment of other lands, and yet the difference does not mar the success of the day. Santa Claus' reindeer can make as good time with pneumatic tire-wheels as with polished runners. A burning log on the hearth is just as bright with a few degrees to lift the thermometer as though it had to thaw out the mercury. We have no jolly sleigh-rides, it is true, but still the road has its pleasures. Our engraving shows what can be done at Christmas time in the way of pleasure-riding. It is the way they did it at Pasadena last year.

Let nobody depreciate this sunbright Christmas of ours. Do not undervalue the advantages of our present country and climate and social circumstances for Christmas keeping as for other things. Cast back a pleasant, but not a regretful eye to the Christmas of the old land, at the root of whose picturesqueness lay the contrast between the snow without and the blazing hearth within. Ours need not be less merrily celebrated because we do do not need the yule log to scare away the fiends of frost and fog and rain. How many are there in the old land who now once more taste the bitterness of the season without the cheer of the festival? How many who have the snows, but not the Christmas fire—who hear the bells, but whose thoughts beat weary chime to their gladdening music. Alas for poor old Europe! With all her proud and picturesque memories, her homes of plenty and pleasure to-night will be only scattered stars on a broad map of sorrow.

Neither let us forget that nature gives to our Christmas an infinitely closer resemblance to the ancient and original one. The shepherds watching in the fields of Bethlehem were scourged by no snowflakes—no winter blasts like those of northern Europe. Even in winter the Syrian airs are genial, except on lofty Lebanon.

"The palm-tree waves by Parphar,
Under Hermon's gladsome hill;
In Judah's clime,
This holy time,
The flowers are fragrant still.
"Damascus hath rainbow gardens,
That are blooming like the rose,
And there this hour,
The sacred bower
Is built of living boughs."

A MIDWINTER HOLIDAY OUTFIT IN CALIFORNIA.

HOLDERS of sound winter apples need not be in a hurry to market their product, even though the demand is active and the price fair. Undesirable apples are coming in in great quantities and are being offered at any price. The market will soon be comparatively free from these inferior apples and then the better qualities will have no such competition.

A SAN FRANCISCO morning paper published a sensational article to the effect that war is imminent by the flour-trust on millers not in the trust. It declares that wages are being reduced, prices cut, the output curtailed, and general means being taken to lower the cost of manufacture, their purpose being to drive their competitors into the trust or out of business. The latter will probably be a very difficult thing to do, as there are several big mills against the trust. A fight among the mills is as likely as not to be of actual benefit to the producer, as long as it does not take the shape of a direct attempt to bear the wheat market.

HUMBOLDT has a canine humorist that barks at passers-by and then lays himself down and laughs. In a spirit of pure fun, some one may some day put a bullet through doggy, and then barking at people who generally mind their own business won't be so thoroughly enjoyable.

THE Folsom prison authorities Tuesday ordered the sale of 40,000 grain bags to consumers at 6¼ cents. The market price for Calcutta wheat bags on the same day was 6⅛@6¼ cents.

SONOMA COUNTY is agitating the question of organizing a Farmers' Institute, and it is likely to be done at an early date.

AN order of the Secretary of the Interior recently issued is of great importance to the horticultural industry of Southern California. It creates a reservation in San Bernardino covering about 48 townships and extending from Cajon Pass on the north to San Gorgonio Pass on the south, taking in the watershed upon the mountains, within the limit of which the cutting of Government timber will now be prohibited. The rights of those who have purchased timber land will be respected.

THROUGH a blunder of the State Land Office, several settlers on land northwest of Pomona will lose their homes and farms, according to a decision of the Department of the Interior. These settlers had bought the land of the State, which was supposed to have title, the land being in school section 36, granted the State by the Government. But it turns out that the State authorities had once given up this particular section, supposing it to be on the San Jose ranch, and selected lieu land. Afterward, the State assumed to sell the land to these settlers. However, there is nothing to prevent them securing title to their homes from the Government, if they are willing to pay the Government price.

THE Southern Pacific, the San Francisco and North Pacific, and the Pacific Coast Steamship Companies have agreed to make practically a half rate in freights and fares to the Mechanics' Institute and citrus fair in January. Preparations for the event are now going forward on a large scale.

AN unauthenticated report appears in the San Francisco press that President Harrison will, after his term of office expires, deliver occasional lectures at Stanford University. The plan is for the President to spend a part of every winter in California and to perform some of the functions of a law professor while here. There are many interesting phases of international law the President might dwell on, if he will. For instance, was his ultimatum to Chili a "bluff," or did he really, truly mean it?

THERE is talk of reviving the California State Poultry Association, and ways and means of reorganization are likely to be discussed at the forthcoming poultry meeting at Petaluma. The Sonoma county association would make an excellent nucleus for the larger organization, and it is to be hoped that the movement will be successful.

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Office, 220 Market St.; Elevator, 12 Front St., San Francisco., Cal.

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Any subscriber sending an inquiry on any subject to the Rural Press, with a postage stamp, will receive a reply, either through the columns of the paper or by personal letter. The answer will be given as promptly as practicable.

ALFRED HOLMAN.....General Manager

San Francisco, December 24, 1892.

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[NEW THIS ISSUE.]

Plows—Deere Implement Co.
Dairy Machinery—G. G. Wickson & Co.
Almond Trees—Jas. O'Hara, Brentwood, Cal.
Myer's Slip Shares—D. N. Hawley.
Regalia—Boston Regalia Co., Boston, Mass.
Olive Trees—Wm. Sickert, Redwood City, Cal.
Spray Pumps—Baker & Hamilton.
Driving Bits—Racine Malleable Iron Co., Racine, Wis.
Land Grubbers—Mohland & Co., Sigourney, Iowa.
Poultry—Miss Forbes, Napa, Cal.
Nursery Stock—California Nursery Co., Niles, Cal.
Potato Planters, Etc.—Aspinwall M'f'g. Co., Jackson, Mich.
Spray Pumps—Allison Neff & Co.
Nursery Stock—J. J. H. Gregory & Son, Marblehead, Mass.

☞ *See Advertising Columns.*

The Week.

The weather has continued for the most part clear, although at times light local rains have fallen. Winds have been prevalent but not violent as a rule; only locally destructive, and then only in slight degree. The temperature has dropped below freezing at some low valley points but not, so far as we have heard, in citrus fruit districts. At present aerial affairs seem somewhat unsettled and rain may fall.

The clear days have been used to their utmost in Christmas preparations. The shops have been filled to repletion and transportation companies overtaxed. The markets show an amount and variety of Christmas cheer to satisfy the most exacting. The impulse to charity seems in the air, and even those sitting in the shadow may see a great light. Such is the true spirit of the day and of Him whose birth the Christian world commemorates.

Oroville Oranges.—We are indebted to the Oroville Citrus Association, growers and dealers in citrus fruits and trees, for a sample box of splendid Washington Navel oranges, showing all the good points of that distinguished variety. The fruit is well-ripened and delicious, perfectly bright and clean, and a speaking witness of the citrus adaptations of the Thermalito colony, where the groves and nurseries of the company are situated.

A Journal of Botany.—The Department of Botany of the State University is advancing with much spirit under the charge of Prof. E. L. Greene. The department announces the publication of a botanical journal to be entitled *Erythea*, the first issues of which will contain papers by Prof. Greene, W. L. Jepson and others. Instructor Howe will make contributions on his specialty, cryptogamic botany. It is not expected that the venture will yield a profit, but if it meets its cost it will satisfy its projectors, who will be gratified at any encouragement that may be shown them. Mr. W. L. Jepson of Berkeley is to edit the publication.

Christmas.

Whatever may be the general decision on claims made for the good old times as superior to the new, there is one matter in which the new must be conceded infinitely better than the old, and that is the popular conception of Christmas and proper observance of it. Whether the pagan orgies which from time immemorial celebrated the return of the sun from his far southern wandering had aught to do with the institution of the chief Christmas holiday, is difficult to determine and is of little moment. It seems clear, however, that the early observance of Christmastide had much of heathenish spirit and manner in it, and to that extent at least was false to the name it bore. It is not strange that the early efforts of the Christian church were directed to the displacement of revels and the substitution therefor of a reverent, religious spirit. It was wise, perhaps, that the change was sought through dramatic avenues; possibly by no other route could the people be led. The improvement was notable, and perhaps as great as the popular enlightenment could foster, and yet each century since has brought the world nearer to a true conception of the Christmas spirit and to celebrations which properly reflect that spirit. The result of this evolutionary process, is that though old terms and old manners are still current in Christmas sayings and doings, and will probably be long retained because of their picturequeness or traditional glory, the Christmas which we to-day accept and celebrate is nearer to the teachings and spirit of the Great Master than any conception which enchained the ancient mind.

It is one of the greatest charms of Christianity, and one of the great proofs of its soundness as a mode of religious belief, that it not only leads to enlightenment and disseminates enlightenment, but its truth shines out more clearly as men's minds rise to higher conceptions. The putting aside of dogmas which have been promulgated in the Christian name has been the striking off of shackles from the Christian spirit. The revision of creeds has allowed this spirit to expand until its breadth is more and more clearly seen to embrace all that humanity needs, or can hope for, for this world and the world to come. With this truer conception of the universality and sufficiency of Christianity has come a truer and wider appreciation of the significance of Christmas as the great religious holiday of the year and the higher and truer regard for the Christ-spirit as a moving force in human thought and action.

It is unquestionably true that we are coming to regard Christmas more and more for its spirit and less for its form and formalities. The Christmas spirit is the gospel of unselfishness, and of nothing else has the world always stood in such great need. Would it be difficult to prove that a more kindly and fraternal spirit prevails throughout the world than formerly? Can it not be shown that individual intercourse never approached the golden rule so closely as now? Certainly, the course of humanity seems to be moving in these beneficent lines, which are lighted by the Star of Bethlehem.

If such be the direction in which the world is moving toward a nobler humanity and toward the likeness in which the Creator made man, the approach of Christmas should awaken in all of us firmer resolves and higher aspirations. Upon many of us life's burdens rest quite heavily. Our waking hours may be charged with cumbering cares. To lives thus burdened the gladsome holidays with their merry makings and reunions should come as angels giving rest and joyful diversions. Then the glad greeting of friends and relatives should bring convincing proof that affection does not grow old. Then the loving words of a wife should teach the heart that its deepest emotions can still gild the life with light and joy. Then the merry cries of happy children, sweet as the notes of song birds, should fill the mind with thoughts of life's most precious treasures. And then, with the glory of an unselfish emotion, let thanks arise to the Giver of all these lives to love and labor for and the inmost soul will glow with gladness at the assurance that "no man liveth to himself; neither dieth to himself."

It has been often said that the greatest evil of the present day is the thirst for material advancement; the greed which piles millions upon conscience until its voice is hushed forever. An agency most potent to thwart this evil influence which saps our manhood, are the thoughts which Christmas time invites. "He who went about doing good" in the lanes and byways of Judea stands before the world, both in religious and secular literature, as the noblest example of self-sacrifice and of disinterested labor and suffering for others which the mind of man can conceive of. No heart into which can steal the faintest appreciation of His character and which can arouse itself to the extent of the slightest emotion on the subject, can fail to perceive that the too prevalent self-seeking and self-serving of the day is false, even to the human idea of the truth and nobility of manhood.

Starting with this as the central idea in the good Christmas customs and observances, it is easy to perceive that its spirit gives life and significance to them all. From the "Merry Christmas" wishings of the early dawn, when the pattering of eager feet wakes us to hear the prayers of our children for our joy, up to the hospitable spread of bounty on our board, and the glad anthem of praise which fills cathedral domes, the lesson which the day imparts is that of the joy of making others happy and in their joy to find our own. It is a noble thought. It is even nobler and higher than humanity. It is divine.

Death of Two Prominent Citizens.

It is a singular fact that the deaths of two citizens of long career and great prominence in the agricultural implement trade in this city should have occurred the same week.

Walter N. Hawley, for many years directly occupied in the management of the business of Marcus C. Hawley & Co., and of its successor the Hawley Bros. Hardware Co., died in Santa Barbara on Sunday night. He moved to Santa Barbara about six years ago and employed his capital and energy in advancing the improvements and interests of that city, where he was greatly honored and esteemed. Most of our readers probably knew him from his long and active service with his firm in this city. He was a man of genial and kindly address and of good business qualifications.

Livingston L. Baker, senior member of the firm of Baker & Hamilton of this city and Sacramento, died suddenly at his home in this city on Tuesday night. He was a pioneer, having joined with Robert M. Hamilton in the establishment of the firm in Sacramento in 1851. Mr. Hamilton survives his partner, but is an invalid, and the management of the business has devolved upon Col. Baker. In addition to the honorable position gained by him as a merchant and manufacturer, Col. Baker was a leader in many progressive enterprises and in social and political affairs. His honorable course and public services will long be remembered.

The State jute mill at San Quentin was established about ten years ago with a plant of 100 looms and a capacity of 2,500,000 bags annually. Six years ago the Legislature appropriated $160,000 for machinery to double the capacity of the San Quentin mill. The prison authorities are now putting in the plant, and by another year the capacity will be 5,000,000 bags. Several attempts have been made to introduce the manufacture of grain bags at Folsom prison, but some objections were made, mainly on questions of local conditions. The principal of these are the dryness of the atmosphere, which causes a shrinkage in the jute, and renders it brittle and liable to break. Folsom being on the line of a railroad, the freight charges on the product, water transportation not being available, would be very large, and would increase the cost to the farmer.

The protest of the wine men that they had not been allotted sufficient space at the World's Fair in which to make an exhibit has been effectual, and the commission has not only granted them larger space but made an additional appropriation for their use. This very important industry will therefore be amply represented at the great exposition.

The Carson *Appeal* gravely states that sawdust is a fine fattener, and recommends it as feed to hogs. If the *Appeal* man should by any misfortune run out of sawdust, he might try shavings. There is much testimony—such as it is—that shavings is an admirable feed, if the hogs are first hitched up with pairs of green goggles.

A modern Oregon Solomon, who has recently said that the Columbus who "discovers a method of making each hen lay a dozen more eggs per year deserves the gratitude of the agricultural world far more than the man who has a horse that breaks the record," knew pretty nearly what he was talking about.

The fact that the bottom has dropped out of the game market because of large shipments of Arizona quail, making the slaughter of California quail somewhat unprofitable, cannot be regarded as an unmixed calamity. The California bird may not hereafter be killed so ruthlessly and in such large numbers.

The experiment of feeding sheep and cattle at Chino with beet pulp is a pronounced success. Beets are brought in from the fields, chopped up, and fed with the pulp and hay; but pulp is the mainstay, and has proven very fattening.

Four fruit-driers in the vicinity of Hanford have been recently totally or partly destroyed by fire. It ought to be unnecessary to caution all fruit men to be exceedingly careful about their fires; but it seems it is not.

From an Independent Standpoint.

It is characetristic of the so-called "Political Press" that in its discussions concerning the coming senatorial election it should have much to say about candidates and nothing about qualifications as distinct from candidates. If anywhere along the line there is anxiety to secure the services of the best possible man, at all comparable with the wish to win with some particular man, we have failed to discover it. The old-fashioned rule of fixing the conditions and then seeking the man to fit them seems to be superseded by a system which finds the man and then seeks to warp the conditions to his personal measure. It is not surprising that this plan of skinning the rabbit from the wrong end results three times out of five in a badly-botched job. So long as it is allowed to stand as the practice in Senatorial elections, its consequence will be just such miscarriages as those which have half-filled our national councils with monopolists like Stanford of California, with corporation agents like Mitchell of Oregon and political corruptionists like Hill of New York.

But a sign of healthy sentiment in this relation is not wanting. Evidences of general disapproval, both of the practice and of its results, may be seen in the popularity of the movement for election of United States Senators by direct vote. The overwhelming support given to this proposition at our recent State election shows that the people of California have learned a lesson from experience. They are dissatisfied with the present method of electing Senators because it enables the wrong man to get into the Senate, and they prefer to take the matter of selection into their own hands. But the coming vacancy is to be filled in the old way and it behooves the Democratic majority in the Legislature, in choosing the man, to answer the demands of the public. What is wanted is a man whose public and private character are alike without reproach; who is in the healthful maturity of physical and mental powers; whose knowledge of the State is a result of personal observation and acquaintance with all parts of it; who is qualified by the breadth and solidity of his general knowledge to deal with questions of national policy; who has no relations and no record of past relations identifying him with the interests of the Southern Pacific Railroad Company; a man to whom the public may look for intelligent and frank expressions of judgment upon public questions as they arise—in short, a loyal Californian of clean character and connections, respectable career, personal energy and business habits. These requirements the politicians will say are severe, but we appeal to the people of California if they are too severe! A man who is not able to fill each and every count in this list of conditions is not fit to represent California and will not be acceptable to the people of California, and the Legislature will do well to bear this in mind. If such men are rare among politicians, they are common enough among the people at large and may easily be found in every county of the State if anybody will take the pains to look for them seriously. The RURAL could name a dozen such among the tillers of the soil.

What is needed by California in the United States Senate is an honest man, strong in his common sense, personal force and business habits. He does not need to have the gift of moving eloquence nor to be rich enough to maintain an elaborate social state. Whoever will take the pains to review the national councils will observe that the plain men who attend diligently to business really achieve the best results. The time when lofty eloquence was the first and chief requirement in a United States Senator has gone by, and men are now valued in the Senate, as elsewhere, for substantial merits of mind and habit rather than for magnetic and spectacular qualities. It is not the power of persuasive speech nor the influence of social station that wins success in the Senate so much as businesslike effort intelligently and persistently applied.

It is an old observation that while dissociated and even unfriendly elements may sometimes be organized for a political campaign they can never be brought into cordial and steadfast support of an administration. The winning of a notable success by such a combination is the certain prelude of controversy and disintegration. Herein lies the particular weakness of the President-elect. He was elected by a temporary combination of three distinct political elements—the Old Line Democrats, the Tammanyites and the Mugwumps—and between these several forces there are no points of political sympathy or affinity. They are wide apart in views, habits, tastes and motives and they hate each other with a holy hatred. Something like this was said in these columns immediately after the election and it was added that fusion and compromise were alike out of the question; that Mr. Cleveland would have to choose one of three lines of policy and that he would soon find himself antagonized by the elements which he would be compelled to slight. The election is not two months past and the inauguration is more than two months ahead—but the prophecy is in the beginning of its fulfillment.

Already two incidents have shown the drift of things. About two weeks ago the Reform Club, a Democratic-Mugwump association of New York, gave Mr. Cleveland a dinner and among those invited to sit at the head of the table was Speaker Crisp of the House of Representatives. Mr. Crisp understood that he would be called upon to speak and in anticipation prepared an address and supplied the Associated Press with a copy. But Mr. Crisp was not called upon and construing the omission as a snub resented it by withdrawing from the banquet. The incident roused a great stir and the papers made the most of it. Mr. Crisp when interviewed said without reserve that he felt that he had been slighted; that he understood from the terms of his invitation that he was to speak and that he should not have made the journey from Washington to New York merely to sit quietly at the feet of Mr. Cleveland. In his view the snub was not only personal to himself but a reflection on the Old Line element of the Democratic party. That he was not alone in this estimate of the matter was shown by the comments of newspapers of all shades of politics; and was most emphatically illustrated by the attitude of the House of Representatives. On his his first appearance after his return, the Speaker was greeted with an ovation designed to express the sympathy of Congress with him as against Mr. Cleveland. The snub was finally condoned by a note of apology from the president of the Reform Club; but while matters are thus nominally smoothed over, the impression remains that Mr. Cleveland is not favorable to Mr. Crisp's re-election to the speakership, and that not only Mr. Crisp, but the element which he represents, will not be in touch with the new administration. The explanation given by members of the Reform Club of the failure to call upon Mr. Crisp for a speech is that he is not in sympathy with the purposes of the Club; but Mr. Crisp's friends will never be brought to believe that he was not included in the original list of speakers, and that his name was crossed out at the request of the President-elect. Thus, straw number one shows that the wind between Mr. Cleveland and the Old Line Democracy is blowing "contrariwise."

The treatment accorded to Crisp, and through him to his element of the Democracy, is matched by Mr. Cleveland's treatment of Tammany. It is alleged that he not only failed to attend a banquet given by the Tammany Society to Mayor-elect Gilroy of New York City, but failed to reply to a note of invitation. Another indication of a breach with Tammany is Mr. Cleveland's open hostility to Murphy, the Tammany candidate for the New York Senatorship. The feeling of Tammany is shown by the comment of its chief spokesman, Bourke Cochran, on the Crisp incident. He said: "I told you all about those people. When we took up the management of the campaign in New York we refused to give them a single appointment or a chance to speak. They would have ruined everything. Yet now, when everything is over and we have won the battle, these 600 Mugwumps come forward and want to read 600,000 regular Democrats out of the party." Straw number two shows that the wind between Mr. Cleveland and the Tammany Democracy is "contrariwise."

Clearly Mr. Cleveland is confronted with positive incompatibility of the elements which brought about his election. He cannot fuse them into a new Democratic party because their differences are too radical for union. Like oil and water, they will not mix. His best policy will be to cut loose from all entanglements, decline the domination of any section or faction either inside or outside of his party, and to serve with diligence the interests of all the people without regard to politics.

The Nicaragua Canal scheme is in process of amendment and in remodeled form will be warmly urged upon Congress after the holiday recess. The amended measure is not yet complete but it will, so Senator Morgan says, amount practically to a transfer of the project from private to Government ownership. This is a consummation devoutly to be wished. If a way can be found—we have heretofore accepted the dictum of reputable lawyers that there was no way—by which the Government may acquire the interest of the company, build the canal on its own account and own and control it when completed, then by all means the project should be taken up with the least possible delay. The sentiment of the country, we believe, would be almost unanimous in support of such a proposition. But if, on the other hand, the new scheme is to have the Government put up the money while leaving the project under private control, it should not be accepted. If the Government is to supply the funds it must control their disbursement and must own the works when completed.

The more we study this canal matter, the less serious seem the obstacles in the way of absolute government ownership and the more serious seem the dangers of private ownership. We are coming to believe that the lawyers have quite unnecessarily made a bug-a-boo out of the Clayton-Bulwer treaty. Let the Government inform Great Britain that after a specific date (to be named) it will disregard the Clayton-Bulwer treaty in so far as it prohibits ownership, operation and fortification of a ship canal across Nicaragua; then let it acquire the rights of the Canal Company, paying therefor a fair price; then let it build the canal, fortify it and operate it. So far as we are able to see, this course is entirely practicable. There would be no difficulty about buying the interest of the Canal Company, and there would certainly be no trouble about raising the money to put the job through. The only obstacle is a treaty with England which ought never to have been made. The way to correct this mistake is after giving England fair notice to declare the prohibitory provisions of the Clayton-Bulwer treaty null and void. Of course it would be much better if the original blunder had never been made; but it is not in reason that it should be allowed to stand forever a bar to legitimate enterprise and to the forward march of human achievement.

We are not unmindful that this view of the matter is in a certain degree out of accord with opinions expressed in these columns some months ago. But we have devoted to the subject new study and new consideration; we are convinced that the lawyers have given to the Clayton-Bulwer treaty an importance not properly its due. In this maturer view of the matter, we cannot see any sound reason why the Government should not build and own the canal. We are frank in stating the newer judgment, believing it infinitely more important to be right than to be consistent.

Information that Mr. Blaine lies at his home in Washington sick unto death will be a matter of personal grief to very many of our readers. Perhaps no American whose career was purely civic has ever been so warmly admired by masses of his fellow citizens as has Mr. Blaine; and it is certain that his death will be more generally mourned than would be that of any other man definitely retired from public life. His ailment is waxy degeneration of the kidneys, from which he has long suffered, and the physicians say that there is no hope—that his life is slowly ebbing away. In all likelihood he will not live to see the New Year and it is even probable that he shall have passed away before these lines are read.

Dipped Raisins.

An improved method of drying raisins is in use among Fresno packers. The process consists of placing the grapes in dipping pans with perforated bottoms. These pans of grapes are then submerged in vats of boiling hot lye, the preparation consisting of one pound of concentrated lye to 15 gallons of water. The grapes are dipped in the lye for an instant only and then brought to the air to cool; this is repeated three times, the entire operation lasting only about half a minute. The dipping of the grapes into the hot liquid and almost instantly afterward exposing them to the cool air causes the grape skin to break open in many places. This exposes the inside of the grapes to the sun, besides softening the skin. Before being placed upon the trays to dry, however, the grapes are rinsed off in pure, cold water. The cost of the dipping operation is very small.

The pack put up by this method is called the California Valencias. It is said to be satisfactory.

An Improved Vine Puller.

Our Napa correspondent, "R.," sends us the following improved method of pulling vines out by horsepower, which should be read in connection with the method described last week:

A large number of grapevines will be pulled in this county this season. The most expeditious method so far used is to take the front wheels of a stout farm wagon, tie a strong chain, one end to either end of the axletree, quite near the wheels, letting the chain form quite a long loop. Hitch the team on to the tongue and drive straddling the rows of vines to be pulled. Let one man attach the chain under the heads of vines by a single twist, or even without this twist in the chain the vines can be pulled up as fast as the team can walk.

SOUTHERN California expects to send East this season 7000 carloads of oranges. The figures are a trifle large, perhaps, but anyway the prospects are first-class for a substantial increase over last season, which was considerably less than 7000.

IT is estimated that the sum of $1,000,000 was, during 1892, paid the fruitgrowers at Vacaville alone—an increase over 1891, even though the yield was smaller. The Solano growers ought to feel in a reasonably comfortable frame of mind.

The State Raisin Growers' Association.

A meeting of the executive committee of the California State Raisin Growers' Association was held at Fresno December 14th, and the question of regulation and control of the raisin market seriously discussed. Alex. Gordon advocated the establishment of a raisin exchange and the promotion of a bill to be passed through the legislature establishing standard, recognized brands for raisins; the appointment of inspectors to see that the raisins are packed according to standard, and the stamping of each box or sack of raisins with a stamp denoting the particular quality or grade of raisins contained therein; and a penalty for any person using the standard brand of raisins upon any raisins not up to the quality specified thereby.

Mr. Gordon further stated that he had been in correspondence with C. C. Wright of Modesto, the author of Wright's Irrigation bill, who had kindly offered to draft such a bill and assist with his influence its passage through the legislature.

Mr. Motherall, of Hanford, then moved that the chair appoint a committee of five, three of whom shall be growers and two packers, for the purpose of drafting a bill to be submitted to a mass meeting of growers for consideration before presentation to the legislature.

This resolution was carried and the chair appointed on that committee, growers, Messrs. Gordon and Motherall and Miss Hatch; packers, Colonel Forsythe and George B. Noble.

Mr. Gordon was requested to write to Mr. Wright and ask him to fix an early day when he could meet the committee here.

Mr. Motherall stated that Mr. King, a raisin-packer of Hanford, and the Armona Packing Company had refused to observe the prices for raisins as agreed upon with the association and the packers in the State, and that they gave as a reason that the San Francisco packers had, on the 25th of October, broken prices in the Eastern market, and they did not hear of it or were not notified by the association until the first day of November, and he asked that the secretary be requested to write a statement of the circumstances under which the raisin market was broken by the San Francisco packers on the date named.

A constitution drawn up by Wm. Harvey, secretary of the association, indicates the plan upon which the organization proposes to work. The objects of the corporation are stated to be as follows:

The membership of this association shall be limited as follows:

First. All persons who shall own, cultivate or control not less than five acres of raisin grapes shall be entitled to become members of this association, upon payment of the dues provided for.

Second. All raisin-packers, whether private or cooperative or commission, shall, upon giving the required undertaking not to market raisins for less than the given price, and upon paying the dues, be entitled to membership.

Third. All brokers dealing in California raisins shall be entitled to become members of this association upon signing the required undertaking to sustain prices and paying the dues provided for.

The duties of members are: All members of this association who are growers of raisins shall sign an undertaking which shall provide that in selecting, marketing or consigning their raisins, either with the packer or with the broker, they shall agree to sell or consign only to packers and brokers who have given the bond provided for to observe and maintain the minimum price for raisins which shall have been determined or provided for by the executive committee of this association.

All packers of raisins, who are members of this association, shall give a bond for ten thousand dollars, that they will observe the price of raisins which shall from time to time be agreed upon by the executive committee of this association, and that they will only employ such brokers as are members of the association and who shall have given the association a bond for twenty thousand dollars not to cut prices.

All brokers joining the association shall give the association a bond for ten thousand dollars that they will observe and will not sell raisins under the minimum price which is agreed upon from time to time by the executive committee of this association.

The subscription dues to raisin-growers are five cents per acre of raisin-grapes; and to cooperative raisin-packers and brokers $100 per annum.

The usual officers, elected annually, are provided for. The regular meetings shall be annual.

The property, affairs and business and concerns of the association shall be vested in an executive committee of sixty—ten from raisin districts north of Mt. Diablo, twenty from the San Joaquin valley, ten south of Tehachapi, ten selected by the packers, and ten by brokers.

In the executive committee is vested the power to fix the price at which raisins shall be offered to the jobbers.

The executive committee shall meet not less than once every three months or as often as seems necessary.

The members of each district are empowered to organize divisional committees in the districts they represent.

Stamboul Sells for $41,000.

The famous stallion Stamboul, 2:07½, was sold at auction with the Hobart stud, Tuesday, in New York for $41,000, to D. H. Harriman, a banker. The price is considered very low, considering the great merits of the animal, and much surprise is manifested that he did not bring more. Bidding was slow and spiritless.

Nancy Lee, the dam of Nancy Hanks, was next offered. The first bid on her was $3000. She finally went for $7100. A. H. Moore of Cloverdale Stock Farm was the purchaser. Nancy S., daughter of Stamboul and Nancy Lee, was bid in by George Scattergood of Philadelphia for $2800. All the other horses brought about what they were worth. Silverone, 2:19¾, brought $6000, and Silverboul, by Stamboul out of Silverware, $3400. Alta Belle, by Electioneer out of Beautiful Bells, was bought by William Simpson of this city for $4100, and Belle Electra, by Piedmont, dam Electa Belle, by J. B. Dutcher of Paulding, N. Y., for $3300.

Altogether 44 head were disposed of for $125,360, an average of $2851.

Fruit Notes From Campbell.

CAMPBELL, SANTA CLARA CO.

TO THE EDITOR:—We have tried many remedies (?) with a view to discovering one that would prevent the peach tree borer from entering the bark of our fruit trees, but thus far with only partial success. Not all those who have made experiments are prepared to report yet, not having ascertained the results. Later, the results of their efforts pro or con will be known and given to the press.

Inclosed please find a brief report of the Exchange meeting held at Campbell, Cal. on the 15th inst:

F. M. Righter was chairman of a meeting of the orchardists of Campbell last evening to hear E. F. Adams of the County Fruit Exchange set forth that institution's prospects. The fruitgrowers of Campbell naturally take great interest in the success of the Exchange from the fact that the plan originated among them and the movement was set going by their efforts in connection with the West Side growers and others. Mr. Adams, fully detailed the progress made, and showed what was yet deemed necessary to ensure success. He stated that the capital required was only the sum necessary to purchase a lot and build and equip a warehouse, and that a subscription of three dollars per acre of the area of the fruits usually dried would be ample to supply that. Every fruitgrower present took the amount asked for and several of them much more.

Mr. Adams very strongly emphasized the point that the directors of the Exchange could do a great work for the fruit interests of the country if they had behind them the strength and support of the fruitgrowers to be wielded as one force, and that the first thing for the growers to do was to learn to work harmoniously together, selecting their directors with care and judgment and then standing by them through thick and thin.

After some well-timed remaks by Col. McGlincy the meeting adopted the following and adjourned:

Resolved, That this meeting heartily indorse the plans and methods of the County Fruit Exchange, and pledge to its management the hearty support of the orchardists of this community, including our proportion of the capital necessary to transact our own business. CAMPBELLITE.

Escondido Notes.

SAN DIEGO CO., Dec. 19, 1892.

TO THE EDITOR:—The recent rain left the ground in the best possible condition for plowing, and on every hand the plows are at work and seeding is in full blast. The Escondido Land and Town Company has leased some 5000 acres to private parties to put into grain. The McCoy tract of 2300 acres is leased for the same purpose, and the small farmers are all at work throughout the valley, turning up the rich red soil at a rapid rate. A conservative estimate places the acreage to be sown to grain this season at over 30,000 acres, all within ten miles of Escondido. Other portions of the county are doing equally well, the prospects being good for a fine season and an unprecedented crop throughout the county.

The last rainfall amounted to about two inches. The raisin crop is packed and part of it shipped now, so that the ranchers can now turn their entire attention to plowing and seeding and preparing for tree-planting. The Land and Town Co. will ship five carloads in a few days, probably to Chicago. Some of the growers and packers think the market will be better in the spring, and will hold their crop till that time. Something over a hundred boxes will be put up for the World's Fair.

The prospects are good for a lively tree-planting season If we have a wet winter, we may have as good a season as that of '91, when 175,000 trees were planted in the Escondido district. In the immediate valley the preference in tree-planting seems to be given to the lemon among citrus fruits, and to the prune and peach among the deciduous trees, though they all do well here. R. A. Thomas has as fine a specimen of the pomelo or grape fruit as can be found anywhere. The tree is loaded down with great clusters as thick as they can possibly grow. The World's Fair Society want to send the tree to Chicago.

Vegetables for Eastern Markets.

NAPA, CAL., Dec. 14, 1892.

TO THE EDITOR:—I was glad to see in your issue of Dec. 10th an allusion to what could be done with the cabbage crop by marketing it East. From all advices it is evident that there will be a famine of early vegetables at Chicago, not alone of cabbage but of potatoes, cauliflower, asparagus and a number of other early vegetables which could be grown yet, in time for spring sales, in our climate.

If our Fresno and Tulare friends, who cannot see anything but raisins for profit, would put in potatoes now, they would produce a crop worth having in April or May for Eastern shipment, which might give them some capital to help them through the glut in raisins which is sure to come with the first full crop. A word to the wise should be sufficient. California has immense advantages in every direction, but if they are not utilized, what good will they do us? Must every man ride his own hobby, his specialty, to death, or will he learn in time that there are some advantages in mixed farming and a succession of crops.

GEORGE HUSMANN.

Humboldt Cattle Movement.

TO THE EDITOR:—For some years cattle have been driven down to the logging and milling camps of Mendocino county from here, as that has always been considered a good market for beef cattle. This summer there seems to be a desire on the part of some large cattle dealers to get control of that coveted market, as far as this end of the supply line is concerned. To accomplish this, about 1000 head of beef cattle have been bought up and sold, or driven to supply other markets.

It is probable that most of the beef on the Mattole section is slated for down the coast, and as the Blocksburg and Garberville country is drained, or will be, when the Charles ranch is stocked, the balance to be taken to Eureka. The rancher has nothing to lose by the operation, and where those on the inside are to make remains to be seen. G. E. A.

California Trotters of 1892.

The number of California trotters and pacers that, during the past year, entered the 2:30 list reached the surprising and gratifying total of 275 as against 228 for the season of 1891. Of this number, 54 have made records of 2:20 and below, exceeding the number entering the same list in 1891 by 44. The *Breeder and Sportsman* compiles the list of 2:20 trotters, their records, their sires and their sires' records, where they have any, as follows:

NAME.	RECORD.	SIRE.	RECORD.
Alcona Jr	2:19	Alcona	——
Answer	2:20	Ansel	2:20
Aster	2:16	Dexter Prince	——
Azote	2:14¼	Whips	2:27½
Addie E	2:19	Algona	——
Altao	2:17¼	Altamont	2:26¾
Ah There	2:18¼	Electioneer	——
Almont Medium	2:18¼	Happy Medium	2:32½
Avena (2)	2:18½	Palo Alto	2:08¾
Bay Rum	2:20	John Sevenoaks	——
Bow Bells	2:19¼	Electioneer	——
Bernal	2:17	Electioneer	——
Bellflower (3)	2:16½	Electioneer	——
Col. McNasser	2:17½	Starlight	——
Crown Prince	2:17½	Dexter Prince	——
Col. May	2:17	May Boy	2:26
Coral	2:18½	Electioneer	——
Daly	2:15	Gen. Benton	2:34½
Directum (3)	2:11¼	Director	2:17
Deputy	2:19½	Echo	——
Duchess	2:18½	Sidney	2:19¾
Expedition (3)	2:19½	Electioneer	——
Edenia	2:17¾	Endymion	2:23¼
Elden (3)	2:19½	Nephew	2:36
Fitzsimmons	2:20	Dexter Prince	——
Flora M	2:16	Richards' Elector	——
Fleet	2:19½	Sidney (p)	2:19¾
Georgie Woodthorpe	2:19¼	Altamont	2:26¾
Hulda	2:14¾	Guy Wilkes	2:15¼
Jim Mulvenna	2:19¼	Nutwood	2:18¾
Lenmar	2:16¼	Admar	——
Lottery Ticket	2:19	Dexter Prince	——
Maggie	2:20	Dexter Prince	——
Major Lambert (3)	2:19¼	California Lambert	2:27
Mabel H	2:20	Alexander Button	2:26½
Mount Vernon	2:18	Nutwood	2:18¾
Millie Wilkes	2:19½	Guy Wilkes	2:15¼
Murtha	2:18	Stamboul	2:07½
Muta Wilkes	2:14¼	Guy Wilkes	2:15¼
Monaco (3)	2:19½	Electioneer	——
Oro Fino	2:18	Eros	2:29½
Orphina (3)	2:19	Norval	2:14¾
Regal Wilkes	2:11¾	Guy Wilkes	2:15¼
Rowena (2)	2:17	Azmoor	2:20½
Richmond Jr	2:15	A. W. Richmond	——
Silver Bow	2:16¾	Robert McGregor	2:17½
Steve Whipple	2:14	Ham'letonian Chrisman	——
Strathway	2:19	Steinway	2:25¾
Shylock	2:16½	Tom Benton	——
Sabledale (2)	2:18½	Sable Wilkes	2:18
Susie S	2:18	Ham'letonian Mambrino	——
Tippie	2:18¾	Echo	——
Truman	2:12	Electioneer	——
Thornwood	2:19¼	Hawthorne	——

The question of the supremacy of developed and undeveloped sires is not settled by the above, because 27 are by sires with records and 27 are by sires that were not developed. This question in relation to the California performers is therefore open for debate. The pacers are not counted in the above list.

California's list far surpasses that of any other State.

THE flour-millers of California have ceased night work and have cut down wages and discharged a number of men. The men working in the mills are divided into skilled and unskilled workers, and as a matter of course their pay differs correspondingly. A practical miller's wages have for years been from $4 to $4.50 for a day's work of 12 hours. Floormen, sacksewers, drivers and laborers were paid correspondingly. The first intimation of a reduction came in the shape of an order that the sacksewers, who were paid $3 a day would only receive $2.50 hereafter. Then came a notice in many of the mills that the establishments, which had been for years running night and day without intermission, would no longer continue to operate at night, and that all men working on night shifts were discharged. This latter threw a large number of men out of work, and is the cause of much misery and malcontent. Among the shippers and dealers in produce there is no reason known why the mills should reduce wages and hours just now. There is no fall of prices and no surplus in the flour market, so that the action of the combine is considered quite arbitrary and uncalled for.

THE first of the new Spanish-American line of steamers to complete a round trip arrived recently when the Grandholm dropped anchor, fifteen days from Corinto and way ports. Her consignees are Otis, McAllister & Co., resident agents of the new company. The steamer's manifest shows a total freight of 1,122 bags of new crop coffee, divided by planters shipping from the three ports of San Jose de Guatemala, Champerico and Ocos. The new line has heavy engagements ahead of it, both up and down, and it is more than hinted that it will cut a prominent figure in the war between the Pacific Mail Steamship Company and the Panama Railroad Company.

HORTICULTURE.

California Scale for Judging Citrus Fruits.

November 18, 1892.

The State Fruit Growers' Convention held at Marysville in November, 1891, appointed a committee to formulate a scale for the judging of citrus fruits. This committee consists of J. E. Cutter of Riverside; J. R. Dobbins of San Gabriel; S. J. Stabler of Yuba City; and J. A. Clayton of San Jose.

After one year's deliberation, the committee presented its report, as follows:

PRELIMINARY CLASSIFICATION.

Season: Early, December to April; middle, February to July; late, June to December.

Grade: Large, medium, small.

Managing committee from each competing State or section to nominate varieties to any or all of above classes, with months, and, when practicable, dates for tests of its own fruit in the same. Fruit to be judged only by standards of its class. So far as is practicable, no committee to judge fruit of more than one grade (as per classification above).

Scale.—Oranges.

Divisions: Size, form, color, weight, peel, fiber, grain, seed, taste; to be considered in order named.

Counts (credits, points) to be by units and tenths thereof, expressed decimally. Possible total of same to equal 100.

1. SIZE, 0 TO 10.

Standard: Large, 126s, 3¼ inches in diameter; medium, 176s, 2 13-16 inches in diameter; small, 226s, 2 7-16 inches in diameter; tangerines, etc., 2⅛ inches in diameter.

Three-sixteenths of an inch excess of standard allowed (without discount) to "medium" and "small" fruit; three-eighths of an inch ditto to "large."

One-eighth of an inch below standard allowed (without discount) to "medium" and "small" fruit; one-fourth of an inch ditto to "large."

Thereafter, discount one point for first one-eighth of an inch excess or deficiency (additional to allowances specified), and two points for each excessive one-eighth.

2. FORM, 0 TO 5.

Standard: Round, oval, ovate, pyriform.

Discounts for lack of symmetry and for form blemishes. Navel marks not to be discounted except when of abnormal size or of bad form.

3. COLOR, 0 TO 15.

Subdivisions: Bloom, 0 to 2; of peel, 0 to 10; of flesh, 0 to 3.

Standard: Bloom to be perceptible and to be discounted according to degree of deficiency, or of injury thereto. Peel to be of rich, deep orange color, in natural condition, and to be discounted according to degree of deviation therefrom—one or more points. Rust, scale and smut to be discounted five to ten points, and fruit that gives visible evidence of having been cleaned of the same to be subject to equal penalty. Also, peel that has been rubbed or "polished," giving a gloss at the expense of breaking or pressing the oil cells, to suffer the same discount. Flesh to be rich, clear and uniform in any of the shades common to fine fruit.

Omit consideration of "Flesh Color" until after concluding Division 5, "Peel."

4. WEIGHT, 0 TO 10.

Standard: Specific gravity, 1 (equal to that of water), with buoyancy of three-fourths of an ounce allowed to "large" fruit; one-half of an ounce ditto to "medium," and one-fourth of an ounce ditto to "small," all without discount.

One point to be discounted for first one-half of an ounce of buoyancy in excess of allowance, and thereafter two points for each additional one-half of an ounce.

NOTE.—Buoyancy may be easily determined by clasping apothecaries' weight to fruit with light rubber elastics and then placing in water.

5. PEEL, 0 TO 10.

Subdivisions: Finish, 0 to 3; protective quality, 0 to 7.

Standard: Of finish, smoothness and uniformity of surface and pleasant touch. Of protective quality, firm and elastic texture, abundant, compact and unbroken oil cells; and one-eighth to three-sixteenths of an inch thickness.

Discount, one point for first one-thirty-second of an inch above maximum or below minimum, and two points for second ditto, provided that to long-picked and fully "cured" oranges the minimum shall be lowered to three-thirty-seconds of an inch; and that to fresh-picked and to slightly "cured, large" fruit the maximum shall be raised to one-fourth of an inch.

Breaking of oil cells, abrasions of peel and drying of same, to be subject to from one to ten discounts, according to degree.

(Here consider "Color of Flesh." See Division 3.)

6. FIBER, 0 TO 8.

Standard: Septa delicate and translucent; maximum diameter of core, three-sixteenths of an inch in "large" fruit and one-eighth of an inch in other.

7. GRAIN, 0 TO 4.

Standard: Fineness, firmness, compactness.

8. SEED, 0 TO 8.

Standard: Absence of.

Discount one point for each of first three seeds; thereafter, one-half point for each additional.

Each rudiment to be considered as a seed if any growth has been developed; otherwise, allowed without discount.

9. TASTE, 0 TO 30.

Subdivisions: Sweetness, 0 to 10; citrous quality, 0 to 10; aroma, 0 to 10.

Standard: Clearness and definability of elements. Sweetness rich, delicate rather than heavy. Citrous quality pronounced. Aroma pervasive and agreeable.

Deficiency or absence to be cause for discounts against any element, and excess to be like cause against sweetness, and against acid in citrous quality.

Staleness and flavors of age or decay to be discounted from the aggregate of points in this division.

Lemons.

Divisions: Size, form, color, weight, peel, fiber, grain, seed, taste.

Rules of counts and discounts as in scale for oranges.

Totals of possible counts (points), 100.

1. SIZE, 0 TO 7.

Standard: Large, 250s, 2⅜ inches in diameter; medium, 300s, 2⅛ inches in diameter; small, 360s, 1⅞ inches in diameter.

All sizes between 250s and 360s allowed.

Large fruit to be discounted one point for first one-eighth of an inch in excess, and two points for each succeeding one-eighth. Smaller to be discounted one point for 400s (1¾ inches), and four points for 450s (1½ inches).

2. FORM, 0 TO 3.

Standard: Oblong, with allowance of well-formed points at stem and tip. Symmetry required.

3. COLOR, 0 TO 10.

Standard: Bright, clear lemon.

Discounts, according to degree, for green splashes, dashes of bronze or deep shades, or for sunburn.

Rust, scale, and smut, with fruit that gives evidence of having been cleaned of the same, to be discounted five to ten counts.

Rubbing or dusting, if heavy enough to press oil from the cells, to be causes for discount.

4. WEIGHT, 0 TO 10.

Standard: Specific gravity, 1 (equal to that of water), with buoyancy of one-half of an ounce allowed to "large" lemons and one-fourth of an ounce to "medium" and "small," all without discount.

One point to be discounted for first one-half of an ounce in excess of allowance, and two for each one-half of an ounce thereafter.

5. PEEL, 0 TO 10.

Subdivisions: Finish, 0 to 3; protective quality, 0 to 7.

Standards: For finish, to be of smooth, uniform surface, and of pleasant touch. For protective quality, to be of strong, elastic, and of reasonably firm texture; of abundant, compact, and unbroken oil cells, and of thickness of three-thirty-seconds to three-sixteenths of an inch.

To be discounted, two counts for first one-thirty-second of an inch below minimum, and five counts for second ditto; and one count for first one-thirty-second of an inch above maximum, and two for each succeeding ditto; also, one to five points for bad texture, or for deficient or broken oil cells.

6. FIBER, 0 TO 8.

Standard: Septa delicate and translucent. Core not to exceed three-sixteenths of an inch in "large," and one-eighth of an inch in "medium" and "small" fruit.

7. GRAIN, 0 TO 4.

Standard: Fineness, firmness, compactness.

To be water-colored, shading to blue rather than to gray.

8. SEED, 0 TO 8.

Standard: Absence of.

One point to be discounted for each of first three seeds, and one-half point thereafter for each additional.

Rudiments to be considered as seed if any growth has been developed; otherwise, allowed without discount.

9. TASTE, 0 TO 40.

Subdivisions: Acidity, 0 to 20; aroma, 0 to 10; absence of bitterness, 0 to 10.

In interstate competitions, the standard of acidity shall be the highest per cent of strength of acid found in any specimen, determined by chemical test. In other competitions such tests may be applied as committees or competitors may require.

Aroma shall be full and of a clear quality.

Bitterness to be determined by slicing fruit (including peel) thin, covering with hot water and cooling slowly; to stand 24 hours when practicable. No sugar to be used. Should a trace of bitterness appear to the taste, discount one point; should the bitterness be fairly defined, discount two points; if pronounced, discount five points, and if strong, ten points.

AMENDMENTS TO DIRECTIONS.

In classes relating to general exhibits and to displays that do not require cutting the fruit, the provisions of the scale shall apply in "size," "form," "color," "weight," and "peel," except that "color of flesh" and "protective quality" (of "peel") shall not be considered, and "weight" may be determined by hand-testing a sufficient number of specimens, instead of by submersion.

Counts shall be allowed as per scale.

The remaining 60 counts of the scale shall be apportioned as follows, to-wit:

Size of display	0 to 20
Design	0 to 20
Arrangement	0 to 20

"Arrangement" shall be held to consist in harmonious grouping of parts and in skillful execution of the work of setting up the exhibits. The summing of all the counts (possible total, 100) granted by the judges will determine the rank of the exhibits and consequent award.

Classes that require cutting of fruit and full examination of quality shall be judged by the provisions of the scale, the judges to examine so many specimens in each as may seem necessary.

Adopted by unanimous vote. B. M. LELONG,
Secretary of State Fruitgrowers' Convention, Sixteenth Session, San Jose, November 15-18, 1892, and of State Board of Horticulture.

What Ten Acres Will Do.

Every year there is a discussion in the newspapers and much argument among fruitgrowers concerning the revenue to be had from a well-managed fruit ranch of ten acres. A perennial source of inquiry, also, among newcomers to southern California with slender purses, is as to what may be reasonably expected from ten acres of thrifty fruit-trees in the way of support for a family. We have seen few really satisfactory expositions of either side of the discussion.

L. E. Steele, who attended the meeting of the Pomological Society in Pomona recently, has given us some figures that show how good a living for his family of five people his ten acres of various fruits made in the San Gabriel valley west of Baldwin's Santa Anita ranch. "I think," he said, "my experience can be duplicated almost anywhere in southern California by the right man, and it proves the old-time argument." Mr. Steele bought his place and a water right in 1885 for $1200. He set out four acres of prunes, two acres of apricots, one acre of alfalfa, two acres to oranges and half an acre to lemons. He built a house for $1000 more. He got a living for five years from poultry, selling vegetables and strawberries and doing day labor until his property came in bearing. Since then he has taken it easier, but is still a most industrious, strong man.

Mr. Steele has kept accurate account of his ranch finances. He shows that he sold crops from his place in 1891 for $1813 and the net profit was $1725. The money came from the following sources: From alfalfa, $82; from apricots, $316; from prunes, 433; from oranges, $715; and from lemons, $267. For this year his receipts from his ten acres have thus far been $1527, and he has a crop of oranges that will probably bring him $600 more next March. His recent sales of crops have been as follows: From apricots, $448; from prunes, $875; from alfalfa $70; and rom lemons, $134. Mr. Steele and his two boys do all he work on the place, but $132 has been paid for extra abor since January 1st.—Pomona Progress.

FLORICULTURE.

Some Good Roses.

The following is the conclusion of Mr. H. G. Pratt's essay, read at the last meeting of the State Floral Society, of which the first part was in last week's RURAL:

Now as to the yellows. In these the teas are rich. Marechal Niel stands at the head. It is usually classed as a Noisette, for no reason that I can see, only that it is a climber. For a like reason Gloire de Dijon might be classed as a Noisette, while clearly that too is a tea, and a very good one, by-the-way, albeit a little perverse about growing sometimes.

Marechal Niel needs a protected place but plenty of sunshine in the morning and evening. Budded on the yellow Banksia it grows with more vigor than on its own roots, and of course gives better flowers. Both in bud and open flower Niel stands easily first amongst the yellows, though Perle des Jardins is a pretty close second. Indeed as a commercial rose no yellow compares with Perle, as it forces well and is an abundant bloomer, which qualities Marechal Niel possesses in but a slight degree comparatively.

Amazone is another good rose, a nice, clean grower and persistent bloomer in crops. The buds are really fine and much resemble those of Marie Van Houtte and are quite as freely produced. The open flower is a beautiful yellow, pinking with age. It is said not to open well near the ocean.

Coquette de Lyon is a very fine, light yellow, semidouble rose, especially good in spring. The same may be said of Isabella Sprunt. The former is best in the open or half-open flower and the latter in the bud.

Madame Falcot, a seedling from the old Safrano, is fine in bud and flower, except during hot weather, when they have but few petals. Color a deep yellow.

Safrano, to many, is the only tea rose in existence, and yet it is only one of a thousand or so. It readily develops into a tree of considerable size and is always in bloom. Like many others of the class it is prized principally for its magnificent buds. The color is apricot yellow dashed with crimson on the outer petals of the buds.

Sunset is nearly the same color as Safrano, but in bush and flower it closely resembles Perle des Jardins, from which it is a sport. It is a fine rose, but not so popular as the parent sort.

Shirley Hibberd is a poor grower, but its color—a deep orange—is taking, and many people will have it on that account.

Vallee de Chamounix is a sort in much demand. It grows well and blooms freely. The buds are golden yellow dashed with crimson, while in the open flower the center is salmon shaded with crimson, and the outer portion creamy white. In this respect it resembles Claire Carnot, but in shape it is not so graceful as that excellent sort.

Laurette Messimy is a new sort, in shape something like Chamounix but hardly so full. In fact the open flower is too loose to be of much value, but the buds—oh, ye gods!—was there anything ever created more exquisitely fair to look upon? The colors are a blending of yellow and crimson, but in a way that produces a glowing and delightful harmony not seen in any other rose. The nearest approach is the buds of Beauty of Glazenwood, when that freaky sort does its best, or perhaps we should say its prettiest.

I believe Messimy has a touch of Bengal blood in its veins, but in any event it does honor to its progenitors.

Papa Gontier is a light crimson and the most constant bloomer of all the teas. At its best, few roses are so fine. Commercially, it is very profitable, as its fine crimson buds

are always in demand beyond the supply. Picked just before opening and put into water, they will gradually develop and keep for a week in fine condition.

Princess Sagan is in color a deep maroon of "purest ray serene," and, though its petals are few, the rose lasts well when cut. Both in leaf and odor of flower its relation to the Bengals is evident, and to that class it more properly belongs than to the teas.

The hybrid teas (*Rosa Indica Odorata Hybrida*) do not comprise a large class, but in it we have the finest roses grown. At the head stands La France. Doubtless God could have made a better rose than La France, but doubtless God never did. (Pardon the parody.) None other has so many good qualities. No need to describe that which is so nearly perfect.

Duchess of Albany is a sport from La France, almost a solid red in color, but otherwise identical with its parent. It promises to be excellent and popular, but will never equal La France. Neither will Augustine Guinoiseau, or White La France, another sport. The latter is too white for a pink rose and two pink for a white, and yet it is very pretty and good.

Captain Christy is a very large rose of a pure pink, deeper in the center. The form is not so globular as La France, nor has it the incomparable sweetness of that variety, but it is exceedingly chaste and refined in appearance and of healthy but rather slow growth. Quite similar is Lady Mary Fitzwilliam, but of dwarf habit.

Viscountess Folkstone has a large peony-like flower nearly white, and is very desirable.

Camoens has a flower of soft, glowing pink, exceedingly pleasing. It is a good and constant variety.

Meteor, a very dark crimson, is the most popular forcing rose of its color and does fairly well in the open air.

Three good climbers belong to this class, to wit: Reine Marie Henriette, Chestnut Hybrid and Reine Olga de Wurtemburg. The first, at its best, is the most beautiful and a very constant bloomer; but its flowers burn in the hot sun, and, unless in a protected situation, it is apt to mildew. Chestnut Hybrid is rather shy in blooming, and the color is a deep red, not very clear. The last of the trio is a very rank, clean grower and a good bloomer for seven or eight months in the year, taking a rest in late summer and autumn. The buds are remarkably fine and the full-blown flower semidouble. The color is a clear, brilliant cherry, quite permanent. During its blooming season it is a blaze of glory, without a peer among the reds.

The Noisette roses (*Rosa Maschata Hybrida*) are nearly all climbers, and, for the most part, bloom in clusters. The best whites are Lamarque and Estella Pradel, the latter a rather formal dame, but very charming nevertheless.

W. A. Richardson has deep orange buds, the open flowers golden in the center and white on the outer rim.

Reve d'Or is apricot yellow, good in bud and flower, and very satisfactory every way.

Duchesse d'Auerstadt, a late acquisition, has deep yellow and very full flowers, but the bud before opening is not pretty. It was sent out as a climbing tea. In habit it closely resembles W. A. Richardson.

Gold of Ophir is in color a combination of copper and crimson. Small, loose flowers, but pleasing and showy.

Celine Forestier blooms with much freedom. Its petals are light yellow on the inside and white without. A full, beautiful and reliable sort.

Claire Carnot is in color a combination of salmon and crimson. The shape of the flower is globular, much like Duchess de Brabant. Excellent.

The best pink climber is Elie Beauvellain. It, like d'Auerstadt, was sent out as a tea, but seems best placed with the Noisettes.

A magnificent white climber is Madam Alfred Carriere. The flowers are a little loose, but soft and crapy and fine for cutting, keeping exceedingly well. It is not a Noisette but a hybrid with a rose of that class and a tea.

Another rose that climbs, but is difficult to classify, is Beauty of Glazenwood, known also by half a dozen other names. At its best, this rose never fails to create a sensation. Its buds of yellow, gold and crimson, faultless in form and feature, have few, if any, rivals for unalloyed beauty; but to get it at its best—there's the rub. It must have sun but not wind, and generous feed and careful treatment. It blooms but once a year.

The Cherokees, both single and double, are exceedingly useful for covering rough and unsightly places, being evergreen with dark, shining foliage. The single variety is the finest of all single, white roses. Their botanical name I do not know. *Rosa Indica Sempervirens* would seem appropriate.

The Banksias (*Rosa Banksiae*) are rampant evergreen climbers, closely related to the Cherokees, but entirely devoid of thorns, despite the proverb. The blooms are very small and come in dense clusters. The white variety has the odor of violets, but neither of the yellow sorts have much scent of any kind. They are good foster parents on which to grow Marechal Niel, Chromatella, and in fact almost any of the teas or Noisettes.

The Bengals (*Rosa Indica*) are good bedding roses, but not good for cutting. The colors are flesh and deep crimson. Madame Bosanquet and Cels Multiflora are good, light sorts, and Agrippina, Queen's Scarlet and Sanguinea the best crimsons. Queen's Scarlet (a misnomer; there is no scarlet rose) is the best of the Bengals. They are all real ever-bloomers.

The Bourbons (*Rosa Bourboniana*) embrace a few fairly good ever-blooming sorts, the best of which are Souvenir de la Malmaison, flesh colored but too double to open well; Henry Planter, rose; Hermosa, deep-pink and Louise Odier, rose colored, very double and sweet.

The Palyanthas (*Rosa Palyantha Hybrida*) form a new class of miniature roses of much interest to the rosarian. Two sorts can be safely commended to the general public, to wit: Cecile Brunner and Perle d'Or. They are almost identical except in color, the first being a La France pink and the other nearly the shade of orange found in Wm. Allen Richardson. Both are stalwart growers, and true everbloomers. The peduncles or flower stems are long, and the buds, just opening, very captivating. For commercial purposes they are among the most profitable. Everybody likes them.

H. G. PRATT.

THE VINEYARD.

Wine and Brandy Shipments.

The extent and value of the wine and brandy exports of California run up into the millions of dollars. The following tables, made up from statistics in the possession of Winfield Scott, secretary of the State Viticultural Commission, show the aggregate of domestic and foreign shipments, those by rail being domestic, by sea foreign. In the rail shipments, wine values are estimated at 40 cents per gallon, brandy $1.50 per gallon, tax paid. The sea figures are for the eleven months of 1892 ending December 1st, the rail shipments for ten months ending November 1st:

WINE SHIPMENTS BY SEA.

	Cases.	Gallons.	Value.
New York	2,758	3,832,990	$1'758,188
Central America	9,020	77,296	95,869
Tahiti	11	16,165	5,526
Mexico	1,051	72,282	44,693
British Columbia	468	15,833	10,707
Hawaii	589	106,429	75,891
China and Japan	359	41,488	17,148
England	174	92,843	32,621
Germany	200	57,999	26,596
Other European countries	5	12,038	4,684
All others	435	5,460	4,939
Totals	15,070	4,330,763	$2,076,862

BRANDY—SHIPMENTS BY SEA.

	Cases.	Gallons.	Value.
Domestic ports	44	272,296	$501,778
Germany	3	131,375	111,706
England	10	108,524	69,976
All other ports	397	8,578	12,160
Totals	454	520,773	$695,620

WINE—RAIL.

	Cases.	Gallons.	Value.
January	1,820	467,581	$187,032
February	1,763	413,522	165,409
March	3,864	588,801	235,520
April	6,102	687,192	274,877
May	2,710	651,001	260,400
June	3,613	467,275	186,910
July	2,183	357,758	143,103
August	2,141	387,383	154,953
September	2,730	612,088	244,835
October	3,004	755,444	302,177
Totals	29,930	5,388,045	$2,155,216

BRANDY—RAIL.

	Cases.	Gallons.	Value.
January	112	21,205	$ 31,807
February	233	27,530	41,295
March	324	47,319	70,978
April	175	39,607	59,410
May	261	22,968	34,452
June	177	18,345	27,617
July	127	10,884	16,327
August	109	19,461	29,191
September	268	33,740	49,610
October	321	59,627	89,440
Totals	2,107	300,686	$450,127

California Wines in France.

At the last meeting of the California State Board of Trade the argument was advanced that the protective tariff duty should be removed from French wines, as a preliminary step toward opening up a market in France for California wines. It was stated that France annually imports from Spain about 300,000,000 gallons of wine for blending and other purposes. These are mostly cheap wines, which do not enter into competition with the better grade of the French product. It was claimed that, if the barriers to free trade between this country and France were removed, the latter would purchase a considerable part of its imported product from the United States, and, therefore, from California. Spain and France are in a commercial union, by which the wines of the former are admitted nearly free of duty, a very small revenue tax only being imposed.

About a year since France changed its revenue laws, adopting a high protective tariff, with provisions for reciprocal treaties with various countries—much the same in scope and purpose as the McKinley law, with the important distinction that the duties imposed are not advalorem. The former duties on wines were as follows:

Wine, from European countries.....4 fr. 50 c. per hectoliter.
Wine, from all other countries.....4 fr. 50 c. per hectoliter.
Alcohol and distilled liquors of all kinds.....30 fr. per hectoliter.
Liqueurs.....30 fr. per hectoliter.

A hectoliter is 26½ gallons, wine measure.

Present duties are:

Alcohol and distilled liquors of all kinds.....30 fr. per hectoliter.
Liqueurs.....30 fr. per hectoliter.
Wine from countries not in commercial union with France....1 franc and 50 centimes per hectoliter for each degree of alcohol up to 11°; and for each degree above 11°, 2 francs and 65 centimes.
Wines from countries in commercial union with France or with a special treaty.....70 centimes per hectoliter per degree of alcohol up to 11°; and 2 francs and 65 centimes for each degree above 11°.
Maximum duty: 1 franc 20 centimes per degree up to 11°, and 1 franc 65 centimes for each degree above 11°, alcohol.
Minimum duty: 70 centimes per degree up to 11°, and 1 franc 65 centimes for each degree above 11°, alcohol.

It will thus be seen that a sliding scale was fixed on imported wines, the effect of which was greatly to increase the duty on vinous exports from this State. The aggregate of shipments from this State to France is, under this tariff, about 200,000 gallons per year, an almost infinitesimal total.

Negotiations are now said to be in progress for the establishment of reciprocal trade relations between the United States and France. Their exact nature is not a matter of public knowledge, but it is expected that, if concluded, California wines will be admitted on a minimum duty, and the standard French brands will have similar freedom of entry into this country; or, at least some important French product will escape the high protective tax. It is claimed that the United States will receive more than it gives, under this arrangement; that, in the American market, the French wines and the California wines have their distinct place, and that the consumption of either will not be materially effected by a change in the tariff. That is to say, the two wines are not, strictly speaking, competitors, and the French wines will not, by reason of cheapness or otherwise, drive the California wines from the field, or vice versa. Whether this be true or not, there is a serious movement to get some important modification of the rigid provisions of the French tariff against American wines, and to make similar concessions under the reciprocal provisions of the McKinley law. If the negotiations for a commercial union fail, it is likely that the agitation will be continued before a Democratic Congress, to make an absolute reduction of the tariff on wines to a revenue basis, in the expectation that response in kind will be made by France.

THE FIELD.

A Fine Bean Ranch.

A writer in the Ventura *Observer* thus describes the large bean ranch of Dixey W. Thompson, near Ventura:

One of the finest ranches in Ventura county is that owned by Dixey W. Thompson, joining the town of Ventura on the east. It contains about 2300 acres and is as productive as any that can be found in the State. Beginning at the corporate limits of the town, it extends for two or three miles along the beach, its longer axis being nearly east and west. A few hundred acres are elevated but little above the sea level and are used in part as pasture land. Then comes an abrupt escarpment, 18 or 20 feet high, where an almost level tract of some 1400 acres is reached. It has, however, a gradual ascent north toward the foothills and mountains. The Southern Pacific railway passes through the ranch, and a spur or switch offers facilities for loading cars with the products of the farm.

The soil of the ranch is a deep, rich sediment brought down in past ages from the mountains to the south and northeast, and is overlain with a rich vegetable mold. Geologically, it belongs to the quatenary age. In some places near by the soil has been penetrated for over 100 feet and the bottom not found. It is practically inexhaustible. It produces corn, barley, potatoes, fruit and many other things to perfection, but the proprietor finds beans to be the most profitable crop.

As we are writing especially for the benefit of eastern readers, who probably know little of farming or bean-raising in California, we will endeavor to briefly describe the *modus operandi* of the latter, as practiced by Mr. Thompson. Last season he planted 1350 acres to Lima beans, which required 25 tons of seed. After the early rains, which usually fall the latter part of November, the plowing or breaking up begins. This is done by six-horse teams drawing gang plows of four 10-inch shares or blades each. Eleven such teams may be seen at one time on Mr. Thompson's ranch working a total of 44 plows. Each team will break about seven acres daily, and the 11 about 80 acres. The land is cultivated through the rainy season, which usually continues from some time in January to March. About the first of May planting begins, which is done by planters drawn by four horses abreast. Each machine plants two or three rows. In the event of a rainfall after the beans are planted they are plowed up and planted anew, it being found cheaper than to clear them of weeds. But little is required in their cultivation after planting. Usually, however, the fields are gone over once or twice with cultivators to destroy any chance weeds that may have sprung up.

In September, about four months after planting, the beans are ready to harvest. This is also accomplished by the use of machinery. The cutters on this ranch are in appearance similar to the old-fashioned log sled, but with lateral knives on each side fastened in front and running back at an angle of 30 or 40 degrees. It has a wheel at the rear, which is regulated by a lever and acts as a sort of rudder. The machine is drawn by three horses abreast and will cut two rows at a time, averaging about 12 acres daily. Eight of these cutters are operated on this ranch. About 30 men follow them and with forks pile the beans into small heaps to dry. After three or four weeks they are ready for threshing.

The threshing machine used on this ranch is a large "Minnesota Chief," which is equipped with a good engine and 30 men. The beans are gathered into header wagons, with beds 10 feet wide and 16 feet long. One side of the bed is considerably higher than the other, and a large and strong net is spread over the entire bed, fastened on one side, and into which the beans are piled. This is driven to the threshing machine, where a derrick lifts up the lower side of the net and tumbles the contents onto a large platform, after which the straw and beans are fed into the machine with pitchforks. It requires eight header wagons to keep the machine busy. Fifteen hundred sacks, averaging 70 pounds each, or 150,000 pounds, are considered a good day's work.

The yield of beans for a good year is from 1600 to 2000 pounds per acre. Last year this farm yielded 30,241 sacks, or 2,049,210 pounds. This would be equal to 34,000 bushels, and was sufficient to fill 100 cars carrying 20,000

pounds each. From these figures the reader can form some idea of the capacity of Mr. Thompson's farm.

While the highest state of perfection is reached on this ranch it must not be forgotten that there has been a liberal outlay in buildings and all needed machinery. The most complete machines, as mowers, reapers, plows, harrows, pulverizers, rakes, cultivators, cutters, headers, planters, wagons, etc., have been procured. When not in use all are kept housed and preserved from rain and sun, and all corroding influences. There is conveniently located a well-equipped shop, where nearly anything in wood, iron or steel is turned out by skilled workmen.

On the ranch there are three large barns and a warehouse. The latter is for storing grain when threshed. Two of the barns have a capacity of 1000 tons of hay each. The first one the visitor will reach in going from Ventura is 74x120 feet and about 55 feet high. It contains 44 stalls for horses, with room sufficient to drive a wagon behind them the full length of the barn. The bins or feed stalls are so arranged that the coarse straw, foreign matter and debris works out at the bottom as the horse eats the better portion. The stalls are wide and everything has the appearance of commodiousness, utility and cleanliness. In these barns is the aggregated study and planning of the proprietor, extending over many years, and they are as near perfection as one is likely to find anywhere. The stables add greatly to the comfort of the horses, about 80 of which are required on the ranch. The second barn is nearly an exact duplicate of the first, though lacking some of the conveniences.

Among many other convenient and desirable things on this fine ranch is a good dairy, where a most excellent quality of butter is turned out.

The Flour Moth.

Basing its inquiries upon a recent bulletin of Prof. Johnson of Stanford University, relative to the appearance in California of the Mediterranean flour moth, a San Francisco paper declares it has already become an alarming pest, resulting in the loss of thousands of dollars to a number of large establishments, and that it will result in still greater loss before very long.

The statements are based mainly upon interviews with Prof. Johnson and a number of flour manufacturers. They state that there is barely a mill in the State which is not affected by the moth and that all efforts to eradicate it have been unsuccessful.

The moth is continually spreading spinning strands of silk in great quantity which not only gets into the flour, but also clogs the machinery so badly that mills are obliged to shut down temporarily.

Professor Johnson, who has made a careful study of the subject, says he has discovered that the moth propagates and matures more rapidly in this climate than in Canada, the eastern part of the United States and other cold countries where it has appeared. He expects that the disastrous effects of this moth will be very apparent in nearly all mills of the State before the end of another year, as it is almost impossible to drive out the pest.

Prof. Johnson strongly recommends a conference of millmen to adopt uniform measures for fighting the pest.

Products for 1892.

The Fresno *Californian* makes the following estimate of the agricultural products of the United States for 1892:

Corn	$550,000,000
Wheat	325,000,000
Oats	218,000,000
Other cereals	100,000,000
Cotton	300,000,000
Hay	750,000,000
Cornfodder	250,000,000
Special crops	167,000,000
Vegetables	160,000,000
Fruits and flowers	180,000,000
Total for crops	$3,000,000,000
Dairy products	$350,000,000
Poultry and eggs	140,000,000
Wool	75,000,000
Meat products	400,000,000
Total animal products	$965 000,000
Grand total	$3,965,000,000

THE DAIRY.

Rye Hay as a Winter Feed for Dairy Cows.

BECKWITH, PLUMAS COUNTY.

TO THE EDITOR:—Having received a request from a gentleman (whom I have never seen) living a distance from here, to write an article on "Rye Hay as a Winter Feed for Dairy Cows," I would solicit a space in your columns for the purpose.

When hearing farmers make the assertion (as we frequently do) that rye hay does not do for feeding dairy cows, we are apt to think that this, like various other statements, is subject to certain modifications. Having a dry ranch, which is quite irregular in the yield of natural hay, we frequently have to depend on rye and alfalfa. Having but a limited supply of the latter we save it to feed to the cows when they first come in, the rye under these circumstances being our general dependence for our dairy for from four to five months. Experience has proven to us that rye hay may be a very poor feed or a fairly good feed for dairy cows, its value depending upon the time of cutting and manner of curing. It is very poor hay, indeed, if it is allowed to stand too long, and then is left lying in the field sometime before hauling. But we have found that by cutting the rye when it is in blossom, and hauling it as soon as it is so dry that there is no danger of its heating in the barn, allowing none of it to lie and bleach in the sun, our dairy cows do well upon it; and the yearly returns from our cows are fully equal to those of our neighbors who feed the best of natural hay. Rye is a plant of such rapid growth that it might be objected to cutting it so early, when by waiting the amount of hay would materially increase; but this would be poor economy, as after blossoming the juices of the plant rapidly pass into the grain, leaving the hay very poor in quality if left standing long.

One of the essential requisites of good rye hay is that an abundance of seed be sown. A writer for an eastern agricultural journal advises sowing a bushel and a half to the acre. That would not be at all a sufficient quantity for the dry lands of California. One hundred pounds to the acre should be sown here. Rye is so rank a grower it will yield too coarse a quality of hay if sown thin upon the ground. Of course all cereals should be sown thicker on dry soil and in a dry climate than in a country subject to summer showers.

Any farmer would prefer good bunch-grass, clover and red top for his dairy cows. But there is hay and hay of many varieties and qualities, and our experience is that rye hay, properly sown, properly cut and properly cured, makes a bettter feed for cows than some natural grass hay grown on wet soil and consequently sour, or than some other grades of hay bleached in the curing. The lack of a good quality of natural hay need not deter people from dairying with fair success, if they have plenty of land to raise rye.

There are other things to be considered in this region besides the hay for feeding cows. A dry, warm, clean and comfortable shelter for them is also a necessity, as is also an unlimited supply of pure water. Wheat-bran and carrots are, either, valuable auxiliaries to be fed in connection with hay. Indeed, it seems a pity to keep cows on one single article of food throughout our long winters. The cost of raising rye is comparatively small, as it is such a persistent grower it can be volunteered repeatedly; we frequently get a third season's crop from the time of plowing—that is we volunteer it twice. Of a good season we usually cut our rye twice, getting a small crop of good hay for the second cutting. MARY P. S. ARMS.

Cooperative Creameries.

The following paper was read before the Santa Ana meeting of the Farmers' Institute by S. J. Murdock:

"The Westminster creamery was started as a private industry about one year ago last June, and was run some seven or eight months, when it was bought by 14 of the patrons and has since been run on the cooperative plan. They have since increased the number of stockholders to 17. All patrons of the creamery are equal shareholders. The total number of patrons for the month of October was 43; the total amount of milk received during that period was 109,306 pounds; the total amount paid for milk for the same time was $1367.40; the amount received for butter made in October was $1705.95, the average price paid for milk during that period was $1 per 100 pounds, and the present price is $1.42½ per hundred pounds, which is the highest ever paid for milk at the creamery, and is 16½ cents per hundred weight more than the highest price paid under private management. The individual price paid for milk is governed by the percentage of the butter-fat contained in the milk. The highest test is 5.9, that is, there are 5.9 pounds of butter in 100 pounds of milk, as tested by a Babcock tester. The lowest test is 3.35. The present price of butter is 75 cents per roll, or two pounds. The demand exceeds the supply; in fact, the manager told me that one firm in Los Angeles would take the whole output.

"Now, as to the satisfaction of the patrons. I have personally interviewed a number of them since going home from this Institute last evening, and before coming this morning, and the universal verdict was satisfaction, and not one of them was willing to go back to the home care of milk. I also interviewed the buttermaker of the creamery. He is a strong advocate of cooperative creameries, and I will here state that it has paid on the same plan, *i. e.*, cooperative.

"The prospects of the enterprise are good. New patrons are continually coming and old ones are preparing to increase their herds, and also to advance the butter qualities of their present herds. There is more inquiry as to the best feed suitable for different soils; but one of the best features of the cooperative creamery, as conducted at Westminster, is that all of the profits are fairly distributed among the producers. Now, what I mean by fairly distributed is by the system of testing each individual's milk and paying him for the same without passing through the hands of a number of middlemen.

"The price of milk is governed by the price received for the butter, and the relative amount of butter-fat contained in the milk. For instance, the person who delivered milk testing 5.9 received $1.75 per hundred for the same, while those whose milk tested but 3.35 per cent received $1.21 per hundred.

"And, again, the whole amount received is distributed among the producers. Take the amount received for butter last month—$1705.95—deduct from that $30, which is a very liberal estimate for fuel and salt, the only articles of expense which are outside of the patrons, and we find we have $1675.95, or an average of $38.50 for each patron, or $462.80 per year, which is $97 more than the average yearly income of the farmers of the United States.

"If I could give you the exact figures of a similar factory run as a corporation for corporate gain, I think there would be a different footing. The management of the Westminster creamery is not trying to make a showing for the stockholders, but for the whole number of its patrons. Their aim is to meet current expenses and pay a reasonable interest on the money invested."

TRACK AND FARM.

Food for Sick Horses.

F. T. McMahon, veterinary surgeon to the Chicago Fire Department, communicates to the *Street Railway Review* an interesting article on the treatment of sick horses. After specifying the principal substances from which to select articles of diet for the sick horse, such as bran, carrots, oatmeal, linseed, etc., the writer continues:

Bran stands decidedly foremost as the food most generally in use for the invalid horse; it acts as a laxative, is frequently tempting to the appetite, and is easy of digestion. There is no part of the general treatment more universal than offering this substance as a change of food. Is the horse very weary, and his powers of digestion weakened in consequence? We induce him to take a warm bran mash, which comfortably distends the stomach and satisfies any craving for food, thereby enabling him readily to lie down and rest his enfeebled system until repose restores its wonted vigor. Does he show slight symptoms of cold or fever? A warm bran mash is a convenient plan of steaming, and consequently of soothing, the irritable mucous membrane of the air passages; it is a substitute for the more stimulating diet he is accustomed to, and gently promotes the activity of the digestive apparatus; it is also a convenient medium for the exhibition of certain simple remedies, to be mentioned hereafter. Is he incapacitated by lameness? A lower diet than that with which he is indulged when in full work is judicious, and bran is selected. Is it necessary to administer purgative medicine? A bran mash or two renders the bowels more susceptible of its action, and a smaller portion of the drug is therefore required to produce the desired effect, and there is, at the same time, less risk of painful spasms accompanying its operation. Bran mashes may be given hot or cold—cold are perhaps quite as grateful to the horse; but the nibbling of the hot mash in catarrhal affections is particularly beneficial, from the necessary inhalation of steam.

Of all the roots with which horses are tempted, the carrot, as a rule, is the favorite, and perhaps the most beneficial. It is said to be somewhat diuretic in its effects, and to exercise a salubrious influence on the skin. Certain it is, that a sick horse may be coaxed into eating carrots when disinclined to partake of other nourishment, and the greatest benefit results. For the ailing horse, then, carrots are most valuable as an article of diet, and a few may be given with advantage even to a horse in healthy condition.

Oatmeal is extremely nutritious, and as a food for the convalescent horse is most valuable; the bruising process the grain has undergone breaks the husk, and renders it more easily acted upon by the digestive organs. It is usually given in the form of a gruel, and in that form it is one of the most essential articles of diet for the infirmary. It is also a ready mode of supplying the tired, thirsty horse with nourishment after exertion, when he returns to the stable.

Linseed is decidedly to be included in the sick-diet roll. It is nutritious, and from its oleaginous nature, soothing to the frequently irritable mucous membrane of the alimentary canal, and hence is particularly to be recommended in the treatment of sore throats. Nor is its bland effect local only; its more general influence is particularly observable in affections of the kidneys. It may either be boiled, so as to form when cold a gelatinous mass, and then mixed with bran, or the liquid, after boiling, may be offered as a drink.

Grass, hay-tea, etc., are also very useful in the treatment of disease, and should be used in connection with other remedies.

When Horses Should Drink.

Starting for a drive with an acquaintance, I noticed that his spirited young horse was so anxious to go as to be scarcely manageable. Before we had gone a quarter of a mile he stopped at a water-trough and allowed the animal to drink unreasonably. At once all the spirit vanished; he became a tame driver, and for miles had to be urged with a whip, being as uncomfortable as he appeared and more so than slight thirst would have made him. This folly I have often seen committed by men at work in the field. Too much water (to say nothing of other drinks) would unfit them for activity during an hour or two because of depressing fullness. On a long overland carriage drive with my wife, she thought it hard not to let the horse drink largely every mile or two, but at the end of the first day she changed her opinion. Sweating profusely he could scarcely be urged out of a walk. Following days, with reasonable drink and light hay rations except at night, he proved himself a different horse. Drivers ought to remember that a horse cannot derive nourishment from food or drink while in motion, and that these things only cause misery after the momentary gratification of appetite. The strength must be accumulated or fat laid on while at rest, and it is economical of both to give the horse but little food and only a swallow or two of water frequently while performing his duty. Arabs of the desert, the world's best horsemen, never feed except at night. Their beasts are universally noted for soundness of wind and limb, fleetness and good disposition. This is not considered cruelty, but kindness, and their horses are treated with extreme humanity in every other way. Use reason with the horse, both on the road and in the stable. While he is idle don't let him eat more than two hours at mealtime. Horses that eat all the while soon become diseased or useless.—New York Tribune.

THE BEST KIND OF RECORD BREAKING.—While so much has been said about the record breaking on the turf the past season, the honest, plodding plow horse which has added a mile or two to the distance he has been able to draw a heavy load or a plow in a day has not been heard of. The owners of work horses which break their records should appreciate them at least.

SHEEP AND WOOL.

Angora Goat Breeders' Meeting.

Official Report furnished for publication in the RURAL PRESS; delay having occurred by reason of the illness of the secretary.

The eighth annual meeting of the Angora Goat Breeders' Association was called to order at Sacramento on Thursday, Sept. 15, 1892; President C. P. Bailey in the chair; Julius Weyand, secretary.

On motion, the old board of officers were reelected to serve until their successors are elected. The secretary's report was received and ordered published in the PACIFIC RURAL PRESS, appended to these minutes.

Mr. Bailey reported that in April last, while in the East, he called on the Secretary of Agriculture at Washington, D. C., in the interest of the bill to provide for the importation and maintenance of thoroughbred Angora goats; that the secretary informed him that he reported adversely to our demands, stating, however, that he would exert his influence to secure a permit from the Turkish Government to allow private enterprise to import a number of these animals to this country.

The following was adopted:

WHEREAS, H. R. Bill 6004 of the first session 52d Congress, to provide for the importation and maintenance of thoroughbred Angora goats by the Government, for distribution of the progeny to applicants from the different States at valuations of actual cost; for an accurate record of said goats and a register of their progeny, with such data containing the pedigree and other matters pertaining to said goats as shall afford information thereof for the benefit of the breeders in every section of this country, has been disapproved by the Secretary of Agriculture; and

Whereas, He favors a plan to assist private enterprise to make an importation of Angora goats from Asia Minor; therefore

Resolved, That the Hon. Secretary of Agriculture be requested to present to the Cabinet the subject of negotiating with the Turkish Government for its permit to an importation of 150 or 200 Angora goats to this country; also to withdraw his opposition to H. R. Bill 6004 if practical, otherwise to allow private parties the privilege of this importation, under rules not to deprive any breeder in the United States of membership of such syndicate; and further

Resolved, That a copy of this resolution be forwarded to the Hon. Secretary of Agriculture, the Hon. Hermann, M. C., and to members of U. S. Senate at Washington, D. C.

The following was also adopted:

WHEREAS, The directory of the World's Columbian Exposition at Chicago, for 1893, has published a list on page 35, offering premiums on Class LIII, Angora goats, in the aggregate, $360; also Class LIV, Cashmere goats, in the aggregate, $360; and

Whereas, the members of this association are well acquainted with all importations of goats, and are certain that never one single Cashmere has been brought here, but as a fact it is a habit of using that name in place of Angora by misinformed persons; therefore

Resolved, That the premiums on Cashmere should be struck off, or Angora and Cashmere should be computed and be under one head on the list to avoid contentions among exhibitors; and further

Resolved, That copies of this resolution be forwarded to W. J. Buchanan, Chief Department of Agriculture and George R. Davis, Director-General of the Columbian Exposition at Chicago, Ill.

Mr. Bailey reported that while in the East he visited several factories of mohair goods; that noteworthy were the worsted yarns, white, mixed and variegated, in spools and skeins, of the Nonantum Worsted Co. of Boston, and plushes, blue and black Thibets and variegated, black and colored, fine ladies' dress goods of the Sanford mills at Sanford, Maine; also that he has samples of mohair cheviot for gentlemen's wear, manufactured by the San Jose, Cal., Woolen Mill. JULIUS WEYAND, Sec'y.

REPORT OF THE SECRETARY.

At the seventh annual meeting on Sept. 17, 1891, the secretary's report was accepted, ordered published and its recommendation carried out, that an appeal be made to the national government to negotiate for importation of new stock from Asia Minor of the pure strains of blood. Also for the establishment of a Government breeding-farm of this class of animals, and a uniform distribution of the increase to cittzens of such States of the Union where the raising of Angora goats can be made a profitable business.

The secretary forwarded copies of the above report to all and every member of this Association, to the Secretary of Agriculture, the Chief of Bureau of Animal Industry, to the Senators and Representatives of California and Oregon, requesting them to pass a bill for relief of this industry.

On Nov. 16, 1891, the secretary mailed to breeders whose P. O. addresses were known, a circular inviting them to become members of the Association and thereby strengthen our petition, which was to follow the first steps taken. Next the secretary drafted and forwarded a memorial to Congress, setting forth the inability of private parties to import pure-blood strains of Angoras from the Ottoman Empire on account of prohibitory laws in Turkey, and petitioned for enactment of laws, providing for relief as follows:

First: Authorizing the Secretaries of State and Agriculture to negotiate with the Turkish Government for the sale of, and permit to purchase and remove from Asia Minor a flock of Angora goats, no less than 100 does, (twice that number preferable,) and no less than 25 bucks.

Second: To authorize the Secretary of Agriculture to engage suitable persons to proceed to Turkey, examine goats of the different localities, to select the very best to be found, and purchase those animals by them selected, remove to seaport and ship on the safest and best route to the United States, deliver the same to the duly-appointed agents of our Government here, with full reports of the climatic resources of Angora, and other matters of general interest to the breeders.

Third: To authorize the Secretary of Agriculture to select a suitable locality for keeping the said stock, appoint qualified persons to take care of them, keep them separate from any private property of this kind and to provide well for their increase, keep a register of the breeding and cross-breeding of said stock together with date of birth of the kids and their numbers for identification.

Fourth: To authorize from the increase of this flock, not diminishing the original number, to distribute to breeders in the different States a uniform rate, never exceeding one male and one female to one breeder.

In connection with this memorial were presented to the officials of the Agricultural Department, to the Committees of the Senate and the House, and the Members of Congress who had the matter in hand, full history, experiments, statistics and adaptability of this class of animals, and their value in general. H. R. bill, No. 6004, conforming to the petition, was presented on Feb. 15th by Mr. Hermann, and an appropriation to carry out this Act was asked for. All parties in Congress were favorable to this plan as presented, except the Hon. Secretary of Agriculture, who, as I am informed, reported adversely to us, expressing his opinion that the Government should assist private parties only in obtaining permission from the Turkish Government to export a number of goats from that country.

With private ownership of a new importation of Angora goats, a National Register is impossible, and, without such guarantees for purity of stock as we proposed in our bill before Congress can be furnished, many breeders who heretofore were disappointed with mongrels will not spend exorbitant sums of money without assurance of the purest strains of new blood, and the slaughter of entire flocks will continue as heretofore. Our industry cannot prosper unless American mohair is more uniform in quality and commands better prices.

In the correspondence between the Secretary of Agriculture and the secretary of the Association, the former expressed a desire to have an impartial report from a disinterested party on the status of the goat industry. Under date of July 7, 1892, the secretary recommended that Mr. R. Tcherassy, of Tehama county, be appointed to visit our State Fair; also investigate the industry on this coast, and to make a general report on the value of the Angora goat to this country. The Hon. J. M. Rusk, Secretary of Agriculture has not answered granting or refusing my request.

The tariff laws are in favor of our industry; encouragement is due to the breeders in this country for their enterprise; only Government influence can secure for us the much-needed new strains of blood for improving our goats. To benefit all sections alike by Government distribution imtially may be finally denied us, but yet we may find a way to establish a Register, and by doing so give new life to the business. Those persons favored by the Government may be furnished with proper certificates for each individual animal as basis for Register, and rules may be imposed for selling those purebloods at a moderate rate, never exceeding the value of $50 per head after the Register is established.

Unless the members of this Association have an interest in this movement, and also assist other breeders to derive benefits from an importation spoken of, our mission will fail.

The reports on consumption of domestic mohair cannot be fully set forth, and we know the fact that we only furnish less than one-fourth of the quantity used in our factories. We also know that we paid to England for the imported, one and one-fourth million dollars last year; therefore, with rigid enforcement of the present tariff laws the prospects for mohair production are encouraging, while a change to free trade will surely ruin this industry in this country.

The secretary calls the attention of the members to the necessity of devising plans for further action in the premises at earliest convenience. JULIUS WEYAND,
Secretary A. G. B. A.

Sheep on Califoania Farms.

SAN LUIS OBISPO CO., CAL.

TO THE EDITOR:—Having had some years' experience in the sheep and wool business, and being a constant reader of your esteemed weekly RURAL PRESS, I venture to make a few remarks, seeing this column is oftimes not represented in the RURAL nowadays, not because you have any desire to shadow it, but because items of interest are fewer and more difficult to collect than formerly. We do, though, sometimes find instructive papers, notes and comments, which are read with interest and pleasure.

This is one of the industries here that is fast declining. The immense tracts of land used almost exclusively for sheep a few years ago have become now too valuable for that purpose. Irrigation, cultivation, orchards, vineyards, and thousands of homes can to-day be seen, where nothing but sheep and cattle used to feed. This change in things finds employment for a large army of workers and permanent settlers come here to make this glorious State their home.

But while this is true, there are still places too far removed from transportation to raise grain profitably and too rough and hilly for cultivation, and there it is upon these cheap lands, together with the free range of the foothills and mountains, upon which, to a great extent, the mutton and wool of California is raised, and "the sheep that treads with a golden foot" is pushed into a corner, as it were, despised by many, who claim they not only injure the land upon which they range and tread, but tend to impede progress and are not wanted. The grain farmer does not want them, as they pack the soil so it cannot be plowed, and bring weed-seeds and rubbish on their otherwise clean farms. They are not wanted in the Sierra Nevada mountains any longer; they eat off and destroy the young trees, break down the hillsides, etc. They are not wanted on the roads, as they tread down the grades and damage the fences (which may be remarked here, to a great extent, consist, even on the county roads, of two and three barbed wires strung loosely on pickets or posts far apart, rendering it almost impossible to travel with stock with any degree of safety.

One of our farseeing members of the legislature, B. V. Sargent af Monterey, I believe, did introduce a bill adopting a standard fence for the county roads, which, if it passed, and it should have done, has never been enforced. There may be truth in some of these accusations, but where truth ends and prejudice begins, it is hard to tell.

Now, there are counties where the flock of sheep is looked upon as an indispensable adjunct to the profitable management of the farm, yielding larger returns from the amount of money invested than from a like amount put into any other stock. Not only do they get the increase, which, with proper care, often goes higher than 150 per cent, but the wool, and what is of great value to them also, the manure, as well as using their stock sheep to clean up after everything else.

In a few years from now, when large bands of sheep can no longer be profitably handled here, almost every farmer who owns his own farm and has it fenced and improved will have his flock of sheep, numbering in proportion to the size of his farm and its adaptability to their use, and will wonder how he used to get along without them. What is a few bales of wool or a few head of fine fat lambs or mutton sheep in the early spring when prices for meat are always high (and prime sheep and lambs are salable at any time). What is better than a few hundred dollars coming in in this way before the grain, hay and fruit crop is ready, when money is, in many cases, somewhat scarce, from a source requiring only a small outlay to start it, and demanding only a small part of the owner's time and attention, and the feed for which will scarcely be missed, to say nothing of the advantage of having fresh meat for family and hands at any time of the year he wishes, thus cutting down the butcher's bill, which soon runs up at prices charged.

In consequence of the result of the late elections, there may be and doubtless are many who look upon free wool (which will most likely follow) as a great detriment to the sheep industry in this country, but it is not on a basis of raising sheep for wool *alone*. I write but to point out the desirability and profit of a flock of sheep on almost every farm, be it large or small, to take the place of the large bands formerly raised, fed and fattened on the large grants, of which only a few remain open to their use, and on the public domain, which is now almost a thing of the past. California must have meat, and will have *mutton* and *lamb*, and farmers, small as well as large, will find it to their advantage to help to make up the deficiency and supply the increasing demand. The kinds to select for this purpose and the reasons why will follow at a future date. C. U. M.

[These matters are very important. We hope our correspondent will proceed.—ED. PRESS.]

POULTRY YARD.

Nest Eggs.

How long since the water vessels were scalded and the feed-trough cleaned?

It is more economical to spend time improving one or two breeds of stock rather than to attempt more and make a failure.

Left over cabbage and celery plants and garden greens should go to the shut in poultry. They are useful meat and egg producers.

Even if you know your eggs are fresh don't take them to a customer with the shells dirty. It does not help to inspire confidence in their quality.

Every hen on the farm should pay for herself within the next sixty days. If there are any loafers in the flock single them out for your Sunday dinner. They never will be worth more than now, and never relieve more. Better 50 layers than 100 loafers, and hens are loafers as well as men, though the man is usually responsible for the habit.

Begin now to cook the vegetables, such as pumpkins, cabbages, apples or onions in the evening; mix in the meal while hot and put away, covering tightly, so that it will be warm when fed before sunrise. If the hens are obliged to wait for their breakfast after getting their beds made it will have its effect upon them for the entire day. The man who isn't willing to turn out early to feed the flock must not expect to pocket large returns. It's the early riser that gets the eggs.

This question of profits in the poultry yard hinges not on breeds, but on birds. Breeds have certain characteristics, but it is the individual which pays or fails. In dealing with the question it will always be well to keep track of each bird and not rely on the fact that they are this or that breed. Any variety can be made of profit to the owner by keeping close watch of the individuals. Result must be measured with reference to each rather than to all, and in seeking for this a high average will be secured.

Nine-tenths of all the diseases which infest the poultry yard are due to neglect, and the other tenth to carelessness. A natural condition is one of health, and only when man interposes unnatural conditions does there follow disease: Some of these may be enumerated as follows: Overfeeding, impure water in foul dishes, bad air caused by the accumulations under the roosts, draughts of air caused by poor ventilation, open cracks or broken windows, filthy vermin, the result of neglect in cleansing the pens, and weakened constitutions following indiscriminate in-and-in breeding.

BLOOD ALWAYS TELLS.—Two years ago we had a lot of mixed-up chickens of all breeds, but could get no eggs in the winter. We got a Leghorn rooster, put him in with the hens and killed off the roosters we had; then we bought three sittings of Leghorn eggs and set four sittings of eggs from the Leghorn rooster and our mixed hens. This gave us about 33 chicks, some thoroughbreds and some half-breeds. The pullets began laying when about six months old. From January 1st to April 1st we sold 55 dozen of eggs at 14 to 25 cents, besides what we used for a family of three. So much for the eggs; now for the feed. In the morning we feed about two quarts of shelled corn and oats, and in the evening we feed corn. For drink they have skim or buttermilk.—The Buckeye Boy.

EXPERIMENT STATIONS.

Distribution of Seeds and Plants.

University Experiment Station Bulletin No. 98.

As has been stated in our previous bulletins announcing distributions of seeds and plants, the distribution is undertaken for the purpose of securing a popular verdict on the value and adaptability in all parts of the State of the growths which we have under observation on the grounds of the Central Station at Berkeley and of the four outlying stations in Amador, San Luis Obispo, Tulare and Los Angeles counties. With this purpose in view, our distribution contemplates the acceptance of an obligation by the applicant to faithfully experiment with the material supplied and to report success or failure. That this obligation is conscientiously discharged by a large proportion of our correspondents is shown by the full data credited to such sources in our recent reports. This distribution from the station is for the purpose of securing wide trial of growths new to the State, and does not include common trees, plants and seeds which can be had from dealers. For this reason, we do not invite applications for general supplies of garden seeds or fruit-trees. We cannot furnish them.

We cannot undertake distribution to citizens of other States except where desirable exchanges are offered.

Terms.—Our experience has demonstrated that requiring a small contribution insures the applicant's interest and relieves us from the profitless work of supplying the throng of people who always carelessly send for what costs them nothing, and who, as a rule, give no attention to the trial of the material sent them, and therefore do not report results. For this reason, applicants are requested to send the amount specified in connection with each description below to meet the expenses of packing and postage. If they desire seeds sent by express, applicants need not send the amounts specified for postage, *but all orders for* SEEDS *by express* must be accompanied by a remittance of 25 cents to pay for packing. *Express charges are paid by the recipient.* Applications may be made for one or more kinds of seeds, *but an applicant should not order more than one package of a kind.* In case any kind of seed becomes exhausted, the money sent will be returned, unless a second choice is mentioned by the sender. Postal notes are requested instead of stamps whenever practicable. Any surplus left after filling orders will, as far as possible, be returned to the senders, deducting letter postage.

NEWLY-INTRODUCED TABLE FIGS.

The search for a drying fig which shall enable us to produce an article comparable with the Smyrna fig of commerce has obscured efforts to add to our list of desirable varieties for table use. This must be regarded as unfortunate, when it is remembered that probably no fruit succeeds over a greater area of California than the fig. All parts are not suited for drying figs, but the whole State, except the higher mountain valleys and some parts of the immediate coast line, can successfully produce figs if varieties suited to local conditions be secured. To increase knowledge in this direction, large plantings of varieties new to the State were made at our outlying stations. These varieties were derived indirectly from the collection made by Dr. Hogg for the Royal Horticultural Society of England. Preliminary statements of the behavior of these varieties were made by Inspector C. H. Shinn in Bulletin 96 of this station, and a fuller review will appear in our next annual report. Some of the varieties have proved so desirable for several reasons that we now offer cuttings to those desiring to test new varieties of this fruit. Applicants may choose from the following list:

1—*Abondance Precoce.*—Small, early, prolific, good quality.

2—*Black Marseilles.*—Small, medium early, high quality.

3—*Early Violet.*—One of the earliest, small but good; commended for localities having a short season.

4—*Hirta du Japon.*—Medium size, roundish with long stalks, skin very dark, flesh opaline, quality best, very prolific.

5—*Monaco Bianco.*—Above medium size, roundish oblate, skin green, flesh dark red, juicy and exceedingly rich; a free bearer.

6—*Col. de Signora Bianco.*—Medium sized, pyriform, long, ribbed neck, skin green, changing to yellow; flesh deep red, very rich and luscious; a strong grower; late, suited for a warm region.

7—*Du Roi.*—Small, roundish, pale yellow; very fine quality.

8—*Bourjassote Blanche.*—Small, round or turbinate; dull green, inclining to tawny; flesh pale rose, sweet and rich.

9—*Bourjassote Grise.*—Medium size, roundish and flattened; dull brown or tawny, with purple patches; flesh deep red, rich and luscious; uniformly good, and a free bearer.

10—*Drap d'Or.*—Small, roundish, no neck; pale greenish yellow, shaded with brown; flesh delicate amber, thick, juicy and excellent quality.

11—*De Constantine.*—A fig of good quality, stands frost fairly.

12—*Agen.*—Medium size, roundish; skin bright green, cracking longitudinally when ripe, showing white bands; flesh deep red, very rich; a good bearer, but very late, requiring a long hot season.

We will send small bundle of named cuttings, assorted, as many varieties as are in supply, for 25c. by mail, postpaid.

ITALIAN GRAPE VARIETIES.

Two years ago we secured from Italy a collection of about 50 leading Italian grape varieties, as described in Bulletin 91 of this station. In addition to propagation for planting at our outlying stations we have rooted a similar supply for distribution. As they are new to the State we commend them for local experiments. The varieties now available are as follows:

1—*Cipro nero.*—From the island of Cyprus, where it makes the best wines, called "la Commanderia;" also a nice table grape, but ripening late.

2—*Cesanese nero.*—From the "Campagna di Roma," where it is most abundantly cultivated and gives a fine and strong wine.

3—*Paga-debito.*—A black variety from the "Puglie." Good for wine, abundant bearer.

4—*Monica.*—A black grape. Its wine is one of the best in Sardinia.

5—*Neiretta.*—This black variety is very much cultivated at the Saluzzo vineyards, Piedmont; a heavy bearer.

6—*San Gioveto.*—A Tuscan variety, which, blended with *Canajolo* and *Malvasia bianca* (without perfume), makes the majority of good Tuscan wines. According to Count Rovasenda's experiments, it would make a good blend with *Freisa* and *Barbera.*

7—*Neiretto grosso canavesse.*—From Piedmont; abundant acidity and of fairly deep color.

8—*Danugue.*—A Southern French variety, identical with the *Gros Guillaume* from Nice, possessing large berries, but of late maturity.

9—*Ocru di bove.*—Black variety from Sardinia, very large-berried, late maturity.

10—*Favorita.*—According to Count Rovasenda, is identical with the "*Vermentino di Liguria,*" a good white variety both for wine and table use.

11—*Catarattu a la Porta.*—A white Sicilian variety for wine; a heavy bearer, with large and yellow-colored berries, but matures late. The Catarattu varieties are used in making the famous Marsala wines.

12—*Bellino.*—A Piedmont black variety, fine for table use; identical with "*Imperial nero.*"

13—*Passaretta*—Cultivated in Piedmont both for wine and raisins. Their berries are very like a bird's eye.

14—*Crejidero.*—A Spanish white variety, good for table use; fine-looking, but of late maturity.

We will send bundles of rooted vines, assorted varieties, from the above, 25 cents for each package; express charges to be paid by the recipient.

FOREST AND SHADE TREES.

A New Acacia.—We have grown from seeds donated by Baron F. Von Mueller, seedlings of *Acacia aulacocarpa* or *leptophleba*, which we believe has not hitherto been distributed in California. This tree is locally known in Queensland as the "Hickory wattle." It yields a tan bark which is used in Queensland to some extent. The wood is hard, heavy, tough and dark red; useful for cabinet work We desire to ascertain the desirability of the tree in this State for ornamental or economic purposes. We will send three seedlings to each applicant: 25c per lot by express.

Lemon-scented gum (*Eucalyptus citriodora.*) This tree has already gained entrance to the State, but the frequent application to us for it induces us to offer seedlings this year. It is described by Von Mueller as a native of Queensland and generally found on sterile, stony ridges. Its adaptability is, however, seriously limited by its susceptibility to frost. It is useless to plant it on low, frosty situations, and our experience indicates that it is very much more tender than the blue gum. We would like to have it tried in thermal belts in different parts of the State. We send three plants to each applicant: 25c for each lot by express.

Black Wattle (*Acacia decurrens*).—This tree has demonstrated its adaptation to most California climates, is a rapid grower and very desirable. Those who have succeeded in sprouting the seed after immersion in boiling water, write very enthusiastically of the tree. Others have failed to secure germination and for their benefit we offer this year small trees of our own growing: three trees to each applicant, 25c for each lot by express.

A ROOT FOR TANNERS' USE.

Forest supplies of barks yielding tannin have become so reduced that commercial tanners have been led to seek other sources of supply. There is a plant native to the southwest region of the United States, the root of which has been used from time immemorial by Mexicans and Indians for tanning, and is now receiving the attention of tanners in the eastern States and in Europe. It is named "Canaigre" in the Mexican vernacular and "sour dock" by Americans. Its botanical name is *Rumex hymenosepalum.* It is reported that gatherings of the wild root have been so large during the last two years that it is difficult to obtain it in quantity, and plantations recently made in New Mexico have proved profitable, $5 per ton being paid for the green root which is worth $60 to $80 per ton dried and delivered in Europe. The yield in cultivated land is said to reach 16 tons to the acre of green root. Canaigre has been grown in our Garden of Economic Plants for a number of years, and analyses of the root fully, given in our report for 1890, show that the root is rich in tannin. The plant thrives in dry, sandy soils, and our experiments show its success also on adobe when cultivated. To those who desire to test its growth and profitability we offer seed, reminding applicants, however, that it is a relative of "sorrel" and "yellow dock" and therefore a weed which should be carefully handled, although our growth and seeding of it for several years does not disclose a disposition to rapid extension outside of its own area. We send seed in two-ounce packages for five cents each, postpaid.

A GREEN MANURE AND WINTER FORAGE PLANT.

For several years there has been request for a plant which would make a quick growth under our customary winter temperature. Several indigenous and remotely introduced clovers and other plants do this, and on ground naturally seeded with them it will perhaps be found impossible to procure better plants. For obvious reasons, however, constantly cultivated soil exhausts its natural seed supply, and there are other lands in which desirable seeds do not exist in quantity. There is, then, a wide demand for a winter-growing plant (*a*), the seed of which is in adequate commercial supply; (*b*) an annual plant, having therefore, a perishing rather than a perennial root; (*c*) a leguminous plant, because of the well-known ability of such a plant to constantly add to the supply of nitrogen compounds in the soil. A plant which seems to meet these requirements in a notable manner is the "Crimson clover" (*Trifolium incarnatum*), a plant indigenous to northern and central Europe, and therefore not in any sense a new plant. The seed was introduced for trial in our Garden of Economic Plants many years ago, and has been also in the hands of a few private experimenters. Although it made a very quick and luxuriant winter growth, its disappearance at the beginning of the dry season led those who hoped to find in it a dry-land forage plant for summer pasture to pronounce it a failure, and so, indeed, it is from that point of view. It is likely that such judgment may be reversed when the plant is estimated by its winter growth, whether it be for early pasturage or more especially upon recognition of its value in producing a heavy crop while winter moisture is abundant, for plowing under as green manure in the early spring. During the last few years Crimson clover has become very popular for such use in some of the southern States, and there is abundant testimony of its value in refreshing orchard soils, for which it should be chiefly tested in this State. It is also worthy of note as a bee-forage plant, and may serve the stockgrower as well for winter feed, for it grows thriftily under temperatures which check the growth of alfalfa. The plant should not be confused with the common red clover of the East (*Trifolium pratense*), from which it is wholly distinct.

Those who are disposed to make large trial of Crimson clover for green manuring of orchards (and we hope some will do it), can procure the seed of leading California seedsmen at a moderate price, and 20 pounds should be sown per acre as early in the winter as possible. We can distribute the seed only in small parcels, which will enable the experimenter to observe the growth of the plant and determine its fitness for larger use next year. We send 4 oz. packets, postage paid, for 5c.

A NEW FORAGE PLANT—THE FLAT PEA.

In 1891 we received from the U. S. Dept. of Agriculture a small packet of seed of a forage plant which had recently been brought prominently to notice abroad, and was apparently commended by experiments on drifting sands and in other unfavorable and arid conditions. It has been popularly named the "flat pea," and is botanically *Lathyris sylvestris.* It is a perennial legume, having much the form of growth of the "everlasting pea." Plants grown from the seed furnished us, and planted late in 1891, rapidly extended themselves and practically filled the soil of the plot with rambling rhizomes. The present season there was a dense mat of haulm or vine formed which covered the ground and reached a length of about four feet. All through the dry summer months it maintained a bright green and grew continuously. The top growth was cut away in September and fed to animals which ate it readily. The plant did not bloom, and the cutting was for the purpose of stimulating new shoots from the running roots, so that we might have plants for this year's distribution rather than wait another year for the seed. After the cutting the new growth started rapidly. Our observation thus far indicates that the plant grows vigorously throughout the dry season at least in the coast region. Its foreign reputation gives it a very permanent rooting and long service in the most arduous situations.

Analysis of the fodder made at this station gives the plant very high nutritive value.

ANALYSES OF FLAT PEA AND ALFALFA COMPARED.

	Lathyris Sylvestris. California. (Jaffa.)	*Lathyris Sylvestris.* England (Hope.)	Alfalfa Average.
Moisture	63.48	58.63	67.46
Crude protein (Mainly flesh-form'g)	8.18	7.44	5.91
Crude fat	1.63	2.05	1.15
Carbohydrates (Starch, sugar, gums, etc.)	13.77	16.58	12.02
Crude fiber	9.76	12.21	10.51
Mineral matter (ash)	3.18	3.09	2.95
Totals	100.00	100.00	100.00

The differences in composition as shown by the two analyses are, at least in part, due to the fact that we cut our sample before blooming, while the English sample was past bloom and the stems were therefore more mature.

A part at least of the root sets of the flat pea should be carefully planted in the garden or field corner where they can be watched and protected the first year. If the growth be satisfactory, the roots can be distributed here and there in waste places the following year, or the seed can be secured for the same purpose. We will send a small package of roots postpaid for 10c.

ANOTHER FORAGE PLANT.

ELLIOTT'S SIDA.—This plant (*Sida Elliottii*) was widely distributed by seed last year, but we could not meet all the demands made for the seed. In some cases, failure of the seed to germinate has been reported. For these reasons, we offer the seed again this year. The plant is a low bush commended for trial on dry pastures for grazing and not, of course, for mowing. It grows finely in our heavy clay soil, and the plat which received no irrigation whatever looks more thrifty than another plat, which was moderately watered through the summer. It sends down a long tap root, and while young is quite leafy and succulent. It seeds freely and promises to extend itself. Scatter the seed, on hilly pastures, scratching it in here and there with a rake. Mark the places so that it can be looked for afterward. Seed will be sent by mail in small packages for 3c.

CUTTINGS AND SCIONS.

Osier Willows.—Nine named Austrian varieties; sent in lots of 10 of a kind; 10c. per lot, or one dozen assorted, 20c. by mail.

Mulberries.—Cuttings of the following kinds can be had: (1) Multicaulis; (2) Alba; (3) Russian; (4) Downing's Everbearing; (5) Lhoo; (6) Nagasaki. Sent in lots of 10 of a kind; 10c. per lot, or 12 cuttings assorted, 20c. by mail.

Fruit Tree Scions.—The University orchard contains upward of 500 named varieties of fruit, and we can furnish grafting scions of apples, pears, apricots and plums in variety. State what character of fruit is desired and for what purpose.

We do not furnish rooted trees, but scions, for grafting. Send ten cents for each dozen ordered of a single kind, or 20c. if a dozen of assorted varieties is ordered.

VEGETABLES.

Perennial Bean.—A handsome, large, white bean, with a perennial root, from which climbing runners start each year. The seed was donated by Mr. Henry Melde, of Humboldt county. It is worthy of general trial. We can only send a few beans to each applicant; 3c. per packet by mail, postpaid.

Spinach.—New Zealand (*Tetragonia expansa*); described by Von Mueller as a good culinary herb and as useful for restraining drifting sands; growing even during severest heat and drouth. Seed in 1-oz. packets, 3c. We expect to send out *seeds about January* 1, *and* PLANTS ABOUT FEBRUARY 1.

E. J. WICKSON,

December 15, 1892. Berkeley, Cal.

The Oldest Christmas Hymn.

IN Book III of Clement of Alexandria is given (in Greek) the most ancient hymn of the Primitive Church. It is there (150 years after the Apostles) asserted to be of much earlier origin. The following version will give some imperfect idea of its spirit:

Shepherd of tender youth,
Guiding in love and truth,
Through devious ways.
Christ, our triumphant King!
We come thy name to sing,
And here our children bring
To shout thy praise.

Thou art our holy Lord!
The all-subduing Word,
Healer of strife!
Thou did'st thyself abase,
That from sin's deep disgrace
Thou mightest save our race
And give us life.

Thou art wisdom's High Priest!
Thou hast prepared the feast
Of holy love.
And in our mortal pain
None calls on Thee in vain,
Help Thou dost not disdain,
Help from above.

Ever be Thou our Guide,
Our Shepherd and our pride,
Our staff and song.
Jesus, Thou Christ of God!
By the perennial word,
Lead us where Thou hast trod,
Make our faith strong.

So now, and till we die,
Sound we thy praise on high,
And joyful sing.
Infants and the glad throng
Who to Thy Church belong,
Unite and swell the song
To Christ our King.

Baby's Christmas.

I.

PUT up the baby's stocking;
Be sure you don't't forget
The dear little dimpled darling!
She ne'er saw Christmas yet,
But I told her all about it,
And she opened her big blue eyes,
And I'm sure she understood it,
She looked so funny and wise.

Chorus.—Hang up the baby's stocking;
Be sure you don't forget
The dear little dimpled darling!
She ne'er saw Christmas yet.

II.

Dear! what a tiny stocking!
It doesn't take much to hold
Such pink little toes as baby's
Away from the frost and cold.
But then for the baby's Christmas
It would never do at all;
Why, Santa wouldn't be looking
For anything half so small.

Chorus.

III.

I know what we'll do for the baby,
I've thought of the very best plan—
I'll borrow a stocking of grandma,
The largest that ever I can,
And you'll hang it by mine, dear mother,
Right here in the corner, so!
And write a letter to Santa,
And fasten it on the toe.

Chorus.

IV.

Write: "This is the baby's stocking
That hangs in the corner here;
You have never seen her, Santa,
For she only came this year;
But she's just the blessedest baby—
And now, before you go,
Just cram her stockings with goodies
From the top clear down to the toe."

Chorus.

Christmas Joy.

"BEHOLD this glory round our feet."
The Magi mused, "more bright than morn?"
And voices chanted, clear and sweet,
"To-day the Prince of Peace is born."

"What means this stir!" the shepherds said,
"That brightness through the rocky glen?"
And angels answering overhead,
Sang, "Peace on earth, good-will to men!"

'Tis eighteen hundred years and more,
Since those sweet oracles were dumb;
We wait for him, like them of yore;
Alas! He seems so slow to come.

But it is said, in words of gold,
No time or sorrow e'er shall dim,
That little children might be bold
In perfect trust to come to Him.

All around about our feet shall shine
A light like that the wise men saw,
If we our living wills incline
To that sweet Life which is the Law.

So shall we learn to understand
The simple faith of shepherds, then;
And kindly clasping hand to hand
Sing, Peace on earth, good-will to men!

—JAMES RUSSELL LOWELL.

A TALK WITH SANTA CLAUS.

BY EUGENE FIELD.

CHRISTMAS Eve Joel Baker was in a most unhappy frame of mind. He was lonesome and miserable; the chimes making merry Christmas music outside disturbed rather than soothed him; the jingle of the sleigh-bells fretted him, and the shrill whistling of the wind around the corners of the house and up and down the chimney seemed to grate harshly on his ears.

"Hump," said Joel, wearily, "Christmas is nothin' to me; there was a time when it meant a great deal, but that was long ago—fifty years is a long stretch to look back over. There is nothin' in Christmas now, nothin' for me at least; it is so long since Santa Claus remembered me that I venture to say he has forgotten that there ever was such a person as Joel Baker in all the world. It used to be different; Santa Claus used to think a great deal of me when I was a boy. Ah! Christmas nowadays ain't what it was in the good old time—no, not what it used to be."

As Joel was absorbed in his distressing thoughts, he became aware very suddenly that somebody was entering or trying to enter the room. First came a draft of very cold air, then a scraping, grating sound, then a strange shuffling, and then—yes, then, all at once, Joel saw a pair of fat legs and still fatter body, dangle down the chimney, followed presently by a long, white beard, above which appeared a jolly red nose and two bright twinkling eyes, while over the head and forehead was drawn a fur cap, white with snowflakes.

"Ha, ha," chuckled the fat, jolly stranger, emerging from the chimney and standing well to one side of the hearthstone; ha, ha, they don't have the big, wide chimneys they used to build, but they can't keep Santa Claus out! Ha, ha, ha. Though the chimney were no bigger than a gas-pipe, Santa Claus would slide down it!"

It didn't require a second glance to assure Joel that the newcomer was indeed Santa Claus. Joel knew the good old saint—oh, yes—and he had seen him once before, and although that was when Joel was a little boy, he had never forgotten how Santa Claus looked.

Nor had Santa Claus forgotten Joel, although Joel thought he had, for now Santa looked kindly at Joel and smiled and said: "Merry Christmas to you, Joel."

"Thank you, old Santa Claus," replied Joel, "but I don't believe it's goin' to be a very merry Christmas. It's been so long since I've had a merry Christmas that I don't believe I'd know how to act if I had one."

"Let's see," said Santa Claus, "it must be going on fifty years old the last time I slipped down the chimney of the old homestead and filled your stocking. Do you remember it?"

"I remember it well," answered Joel; "I had made up my mind to lie awake and see Santa Claus; I'd heard tell of you, but I never seen you, and brother Otis and I concluded we'd lie awake and watch for you to come."

Santa Claus shook his head reproachfully. "That was very wrong," said he, "for I'm so scarey that if I'd know you boys were awake I'd never have come down the chimney at all, and then you'd have had no presents."

"But Otis couldn't keep awake," exclaimed Joel. "We talked about everythin' we could think of, till father called out to us that if we didn't stop talking he'd have to send one of us up into the attic to sleep with the hired man. So in less than five minutes Otis was sound asleep and no pinching could wake him up. But I was bound to see Santa Claus, and I don't believe anything would have put me to sleep. I heard the big clock in the sitting-room strike 11, and I had begun wonderin' if you were never going to come, when all of a sudden I heard the tinkle of the bells around your reindeer's necks. Then I heard the reindeer prancin' on the roof and the sound of your sleigh-runners cuttin' through the crust and slippin' over the shingles. I was kind o' scared and I covered my head up with the sheet and quilts, only I left a little hole so I could peek out and see what was goin' on. As soon as I saw you I got over bein' scared—for you were jolly and smilin' like, and you chuckled as you went around to each stockin' and filled it up."

"Yes, I can remember the night," said Santa Claus; "I brought you a sled, didn't I?"

"Yes, and you brought Otis one, too," replied Joel; "mine was red and had 'Yankee Doodle' painted in black letters on the side; Otis' was black and 'Snow Queen' in gilt letters."

"I remember those sleds distinctly," said Santa Claus, "for I made them specially for you boys."

"You set the sleds up against the wall," continued Joel, "and then you filled the stockin's."

"There were six of 'em, as I recollect," said Santa Claus.

"Let me see," said Joel. "There was mine, and Otis', and Elvira's, and Thankful's, and Susan Prickett's—Susan was our help, you know. No, there were only five, and as I can remember they were the biggest we could beg or borrow of Aunt Corcas, who weighed nigh onto 200 pounds. Otis and I didn't like Susan Prickett and we were hopin' you'd put a cold potato in her stockin'."

"But Susan was a good girl," remonstrated Santa Claus. "You know I put cold potatoes in the stockings of boys and girls only who are bad, and don't believe in Santa Claus."

"At any rate," said Joel, "you filled all stockin's with candy and popcorn and nuts and raisins, and I remember you said you were afraid you'd run out of popcorn balls before you get around. Then you left each of us a book. Elvira got the best one, which was 'The Garland of Friendship,' had poems in it about bleeding hearts, and so forth. Father wasn't expecting anything, but you left him a new pair of mittens, and mother got a new pair of mittens and a new fur boa to wear to meetin'."

"Of course," said Santa Claus, "I never forget father and mother."

"Well, it was as much as I could do to lay still," continued Joel, "for I'd been longin' for a sled an' the sight of that red sled with 'Yankee Doodle' painted on it just made me wild. But somehow or other, I began to get powerful sleepy all at once and I couldn't keep my eyes open. The next thing I knew, Otis was nudgin' me in the ribs. 'Get up, Joel,' says he; 'it's Christmas, an' Santa Claus has been here.'

"'Merry Christmas! Merry Christmas!' we cried, as we tumbled out o' bed. Then Elvira and Thankful came in, not more'n half-dressed, and Susan came in, too, an' we's just made Rome howl with 'Merry Chris'mas!' to each other. 'Ef you children don't make less noise in there,' cried father, 'I'll hev to send you all back to bed!' The idea of askin' boys and girls to keep quiet on Chris'mas mornin' when they've got new sleds an' 'Garlands of Frien'ship'!"

Santa Claus chuckled; his rosy cheeks fairly beamed with joy.

"Otis an' I didn't want any breakfast," said Joel. "We made up our minds that a stockin'ful of candy an' popcorn an' raisins would stay for us awhile. I do believe there wasn't buckwheat cakes enough in the township to keep us indoors that mornin'. Buckwheat cakes don't size up much 'longside of a red sled with 'Yankee Doodle' painted onto it and a black sled named 'Snow Queen'. We didn't care how cold it was; so much the better for slidin' down hill! All the boys had new sleds—Lafe Dawson, Holbrook Bill, Gum Adams, Rube Playford, Leander Merrick, Ezra Burple—all on 'em had new sleds excep' Martin Peavey, and he said he calculated Santa Claus had skipped him this year 'cause his father broke his leg haulin' logs from the Pelham woods and been kep' indoors six weeks; but Martin had his ol' sled and he didn't hev to ask any odds of any of us neither."

"I brought Martin a sled the next Christmas," said Santa Claus.

"Like's not; but did you ever slide down hill, Santa Claus? I don't mean such hills as they hev out here in this new country, but one of those old-fashioned New England hills that was made 'specially for boys to slide down—full of bumpers an' thank-ye-mars, and almos' took our breath away. 'Merry Chris'mas to ye, little boys!' it seemed to say, and it untied our mufflers an' whirled the snow in our faces, just as if it was a boy, too, an' wanted to play with us. An ol' crow came flappin' over us from the cornfield beyond the meadow. He said 'Caw, caw,' when he saw my sled; I s'pose he'd never seen a red one before. Otis had a hard time with his sled—a black one—an' he wondered why it wouldn't go as fast as mine would.

"'Hev you scraped the paint off'n the runners?" asked Wralsey Goodnow. 'Course I hev,' said Otis; 'broke my own knife an' Lute Ingraham's a-doin' it, but it don't seem to make no diff'rence—the darned ol' thing won't go!' Then, what did Simon Buzzell say but that, like's not, it was because Otis' sled's name was 'Snow Queen.' 'Never did see a girl sled that was worth a cent, anyway,' sez Simon. Well, now, that jest about broke Otis up in business. 'It ain't a girl sled,' sez he, 'and it's name ain't Snow Queen! I'm a-goin' to call it Dan'l Webster or Oliver Optic or Sheriff Robbins, or after some other big man.' An' the boys plagued him so much about that pesky girl sled that he scratched off the name, an', as I remember, it did go better after that.

"About the only thing," continued Joel, that marred the harmony of the occasion, as the editor of the Hampshire County *Phœnix* used to say, was the ashes that Deacon Morris Frisbie sprinkled out in front of his house. He said he wasn't going to have folks breaking their necks jest on account of a lot of frivolous boys that was goin' to the gallows as fas' as they could. Oh, how we hated him, and we'd 've snowballed him, too, if we hadn't been afraid of the constable that lived next door. But the ashes didn't bother us much, and every time we slid side-saddle, we'd give the ashes a kick, and that sort o' scattered 'em,'

The bare thought of this made Santa Claus laugh.

"Goin' on 'bout nine o'clock," said Joel, "the girls come along—Sister Elvira an' Thankful, Prudence Tucker, Belle Yocum, Sophrone Holbrook, Sis Hubbard an' Marthy Sawyer. Marthy's brother Increase wanted her to ride on his sled, but Marthy allowed that a red sled was her choice every time.

"'I don't see how I'm goin' to hold on,' said Marthy; 'seems as if I would hev my hands full keepin' my things from blowin' away.'

"'Don't you worry about yourself, Martha,' sez I, 'for if you look after your things I kind o' calc'late I'll manage not to lose you on the way.'

"Dear Marthy—seems as if I could see you now, with your tangled curls a-blowin in the wind, your eyes all bright an' sparklin an' your cheeks as red as apples. Seems, too, as if I could hear you laughin' an' callin' jest as I did as I toiled up the old New England hill that Chris'mas morning—a-calling 'Joel, Joel, Joel! Ain't you ever comin', Joel?' But the hill is long an' steep, Marthy, an' Joel ain't the boy he used to be; he's old an' gray an' feeble, but there's love an' faith in his heart, an' they kind o' keep him totterin' toward the voice he hears a-callin' 'Joel, Joel, Joel!'"

"I know—I see it all," murmured Santa Claus very softly.

"Oh, that was so long ago," sighed Joel; "so very long ago. And I've had no Christmas since—only once, when our little one—Marthy's an' mine—you remember him, Santa Claus?"

"Yes," said Santa Claus," a toddling little boy with blue eyes—"

"Like his mother," interrupted Joel; an' he was like her, too—so gentle and lovin', only we called him Joel; for that was my father's name, and it kind o' run in the fam'ly. He wa'n't more'n three years old when you came with your Christmas presents for him, Santa Claus. We had told him about you, and he used to go to the chimney every night and make a little prayer about what he wanted you to bring him. And you brought 'em, too—a stick horse, an' a picture book, an' some blocks an' a drum—they're on the shelf in the closet there, and his little Chris'mas stockin' with 'em—I've saved 'em all, an' I've taken 'em down an' held 'em in my hands, oh, so many times."

"But when I came again," said Santa Claus—

"His little bed was empty, an' I was alone. It killed his mother—Marthy was so tender-hearted; she kind o' drooped an' pined after that. So now they've been asleep side by side in the buryin' ground those thirty years.

"That's why I'm so sad like whenever Christmas comes," said Joel, after a pause. "The thinkin' of long ago makes me bitter almost. It's so different from what it used to be."

"No, Joel; oh, no," said Santa Claus; "tis the same world, and human nature is the same, and always will be. But Christmas is

for the little folks, and you, who are old and grizzled now, must know it and love it only through the gladness it brings the little ones."

"True," moaned Joel; "but how may I know and feel this gladness when I have no little stocking hanging in my chimney corner—no child to please me with his prattle? See, I am alone."

"No, you're not alone, Joel," said Santa Claus. "There are children in this great city who would love and bless you for your goodness if you but touched their hearts. Make them happy, Joel; send by me this night some little gift to the little boy in the old house yonder. He is poor and sick. A simple toy will fill his Christmas with gladness."

How sweetly Joel slept! When he awoke the sunlight streamed in through the window and seemed to bid him a Merry Christmas. How contented and happy Joel felt! It must have been the talk with Santa Claus that did it all; he had never known a sweeter sense of peace. A little girl came out of the house over the way. She had a new doll in her arms and she sang a merry little song and she laughed with joy as she skipped along the street. Aye, and at the window sat the little sick boy, and the toy Santa Claus left him seemed to have brought him strength and health, for his eyes sparkled and his cheeks glowed, and it was plain to see his heart was full of happiness.

And, oh! how the chimes did ring out, and how joyfully they sang their Christmas carol that morning! They sang of Bethlehem and the manger and the babe; they sang of love and charity, till all the Christmas air seemed full of voices:

Carol of the Christmas morn—
Carol of the Christ-child born—
Carol of the list'ning sky
Till it echoes back again
"Glory be to God on high,
Peace on earth, good-will tow'rd men."

So all this music—the carol of the chimes, the sound of children's voices, the smile of the poor little boy over the way—all this sweet music crept into Joel's heart that Christmas morning—yes, and with these sweet, holy influences came others so subtle and divine that in its silent communion with them Joel's heart cried out amen and amen to the glory of the Christmas time.

The Nativity.

THE air was still o'er Bethlehem's plain,
As if the great night held its breath,
When life eternal came to reign
Over a world of death.

All Nature felt a thrill divine
When burst that meteor on the night,
Which, pointing to the Savior's shrine,
Proclaimed the new-born Light.

Light to the shepherds! and the star
Gilded their silent midnight fold;
Light to the wise men from afar,
Bearing their gifts of gold.

Light to a realm of sin and grief;
Light to a world in all its needs;
The Light of Life, a new belief
Rising o'er fallen creeds.

Light on a tangled path of thorns,
Though leading to a martyr's throne;
A light to guide till Christ returns
In glory to his own.

There still it shines, while far abroad
The Christmas choir sings now, as then:
"Glory, glory, unto our God!
Peace and good-will to men!"

—THOMAS BUCHANAN READ.

Christmas Bells.

I HEARD the bells on Christmas day
Their old familiar carols play,
And wild and sweet
The words repeat
Of peace on earth, good-will to men!
And thought how, as the day had come,
The belfries of all Christendom
Had rolled along
The unbroken song
Of peace on earth, good-will to men!

Till ringing, singing on its way,
The world revolved from night to day,
A voice, a chime,
A chant sublime,
Of peace on earth, good-will to men!

But in despair I bowed my head—
"There is no peace on earth," I said;
For hate is strong,
And mocks the song
Of peace on earth, good-will to men.

Then pealed the bells more loud and deep,
"God is not dead nor doth he sleep!
The wrong shall fail,
The right prevail,
With peace on earth, good-will to men!"

—HENRY W. LONGFELLOW.

A PERFECT CHRISTMAS.

BY WILLIAM O. STODDARD.

CHAPTER I.

THERE was not a bigger house in all the valley than that of Grandfather Vrooman. It was old, cozy and comfortable, and it seemed to lie sound asleep, with a snow blanket all over its roof.

Nothing short of a real old-fashioned Christmas could wake up such a house as that.

Christmas was coming!

Unless Santa Claus and the Simpsons and the Hopkinses should forget the day of the month, they would all be there at waking-up time to-morrow morning.

"Jane," said Grandmother Vrooman, that afternoon, to her daughter, Mrs. Hardy, who lived with her—"Jane, I've got 'em all fixed now just where they're going to sleep, and I've made up a bed on the floor in the store-room."

"Why, mother, who's that for?"

"You wait and see, after they get here, and we've counted 'em."

"Anyhow there's cookies enough, and doughnuts."

"And the pies, Jane."

"And I'm glad Liph gathered such piles of butternuts."

"Oh, mother," exclaimed little Sue, "I gathered as many as he did, and beechnuts, and hickory nuts, and——"

"So you did, Sue; but I wonder if two turkeys 'll go round, with only one pair of chickens?"

"Mother," said Mrs. Hardy, "the plum pudding?"

"Yes, but all those children! I do hope they'll get here to-night in time for me to know where I'm going to put 'em."

At that very minute, away up the north road, two miles nearer town, there was a sort of dot on the white road. If you were far enough away from it, it looked like a black dot, and did not seem to move. The nearer you came to it the funnier it looked, and the more it seemed to be trudging along with an immense amount of small energy. Very small, indeed, for anybody close up to it would have seen that it was a five-year-old boy in a queer little suit of gray, trimmed with red. He had on a warm gray cap, and right in the middle of the front of it were worked a pair of letters—"O. A."—but there was nobody with the gray dot to explain that those two letters stood for "Orphan Asylum." No, nor to tell how easy it was for a boy of five years old, with all the head under his gray cap full of Christmas ideas, to turn the wrong corner where the roads crossed, south of the great Orphan Asylum building. That was what he had done, and he had walked on and on, wondering why the big building did not come in sight, until his small legs were getting tired, and his brave, bright little black eyes were all but ready for a crying spell.

Just as he got thoroughly discouraged he came to the edge of the woods, where there stood a wood sleigh with two horses in front of it, drawn close to the road-side, and heaped with great green boughs and branches.

"The sleigh's pretty nigh full, grandfather," sang out a clear, boyish voice beyond the fence, and a very much older one seemed to go right on talking.

"Your grandmother, Liph, she always did make the best mince pies, and she can stuff a turkey better'n any one I know."

"Grandfather, do you s'pose they'll all come?"

"Guess they will. That there spruce 'll do for the Christmas tree. Your grandmother said we must fetch a big one."

"That's a whopper. But will Joe Simpson and Bob Hopkins be bigger'n they were last summer."

"Guess they've grown a little. They'll grow this time, if they eat all their grandmother 'll want 'em to. Hello, Liph, who's that out there in the road?"

"Guess it's a boy."

"I declare if it isn't one of them little gray mites from the 'sylum Way out here! I say, bub."

"I'm Bijah."

There was a scared look in the black eyes, for they had never seen anything quite like Grandfather Vrooman, when he pushed his face out between the branches.

The trees all looked as if they had beards of snow, but none had a longer or whiter one than Liph's grandfather.

"Bijah," said he, "did you know Christmas was coming?"

"Be here to-morrow," piped the dot in gray, "and we're going to have turkey."

"You don't say! Just wait until I cut a tree down, and I'll come out and hear all about it."

"Is your name Santa Claus?"

"Did you hear that, Liph? The little chap's miles from home, and I don't believe he knows it."

"Is that your sleigh?"

"Yes, Bijah, that's my sleigh."

"Them ain't reindeers, and you're bigger'n you used to be."

"Hear that, Liph?"

Bijah had not the least doubt in the world but that he had discovered Santa Claus in the very act of getting ready for Christmas, and his black eyes were growing bigger every minute, until Liph began to climb over the fence. Then he set off on a run as fast as his legs could carry him.

"Hold on," shouted Liph. "We won't hurt you."

"Let him go," said Grandfather Vrooman. "He's on the road to our house, We'll pick him up."

"Took me for Santa Claus, I declare! Liph, this here tree'll just suit your grandmother."

It was a splendid young spruce-tree, with wide-spreading boughs at less than two feet from the snow level. Grandfather Vrooman worked his way carefully in until he could reach the trunk with saw and ax, and then there was a sharp bit of work for him and Liph to get that "Christmas tree" stowed safely on the top of the sleigh load.

"Now for home, Liph. Your grandmother'll cut into one of them new pies for you when you get there"

"Look!" shouted Liph, "that little fellow's waiting for us at the top of the hill."

The hill was not a high one, and the road led right over it, and there on the summit stood Bijah.

"I'm so tired and hungry," he said to himself, "and there comes old Santa Claus, sleigh and all."

He was getting colder, too, now he was standing still, and when Grandfather Vrooman came along the road, walking in front of the sleigh, there seemed to be something warm about him.

It was not so much his high fur hat, or his tremendous overcoat, or his long white beard, or the way he smiled, but something in the sound of his voice almost drove the frost out of Bijah's nose.

"Well, my little man, don't you want to come to my house and get some pie?"

"Yes, sir."

Bijah could not think of one other word he wanted to say, and he mustered all the courage he had not to cry when Grandfather Vrooman picked him up, as if he had been a kitten, and perched him by the side of Liph among the evergreens.

On he went, and Bijah did not answer a single one of Liph's questions for five long minutes. Then he turned his black eyes full on his driver and asked, "Do you live with Santa Claus in his own house?"

"Yes, sir-ee," responded Liph, with a great chuckle of fun; but all he had to do the rest of the way home was to spin yarns for Bijah about the way they lived at the house where all the Christmas came from. When they got there, Liph's father and the hired man and Grandfather Vrooman were ready to lift off that Christmas tree and carry it through the front door and hall, and set it up in the "dark room" at the end of the hall. That ought to have been the nicest room in the house, for it was right in the middle, but there were no windows in it. There were doors in every direction, however, and in the center of the ceiling was a "scuttle hole" more than two feet square, with a wooden lid on it.

"John," said Grandfather Vrooman to Mr. Hardy, "we'll hoist the top of the tree through the hole. You go up and open the scuttle. Hitch the top good and strong. There'll be lots of things to hang on them branches."

Liph's father hurried upstairs to open the scuttle, and that gave Grandfather Vrooman a chance to think of Bijah. "Where is he, Liph?"

"O, he's all right, grandmother's got him. She and mother caught him before he got into the house. He tried to run away, too."

Bijah's short legs had been too tired to carry him very fast, and Grandmother Vrooman and Mrs. Hardy had caught him before he got back to the gate.

The way they laughed about it gave him a great deal of courage, and he never cried when they took him by his red, little hands, one on each side, and walked him into the house.

"Jane," said grandmother, "what will we do with him? The house'll be choke, jam, packed full, and there isn't an extra bed."

"Father found him in the snow somewhere. Just like him. But what a rosy little dot he is?"

"Are you Santa Claus' wives?" asked Bijah, with a quiver of his lip in spite of himself.

How they did chuckle while they tried to answer the question! All they made clear to Bijah was that the place for him was in a big chair before the sitting-room fireplace, with a plate of mince pie in his lap, and Bush, the big house-dog, sitting beside him.

"It's Santa Claus' dog," said Bijah to himself; "but his house isn't as big as the 'sylum."

CHAPTER II.

There were fireplaces in every room on the ground floor of Grandfather Vrooman's house, and some kind of stove in more than half the rooms upstairs.

There were blazing fires on every hearth downstairs, and Liph got hold of Bijah after a while and made him and Bush go around with him to help poke them up. Bijah had never seen a fireplace before, and it was a great wonder to him, but Bush sat down in front of each fire and barked at it.

It was getting dark when they reached the great front parlor, and the fireplace there was wonderful.

"Woof, woof, woof," barked Bush.

Bijah stood still in the door while Liph went near enough to give that fire a poke, and he could hear Grandfather Vrooman away back in the sitting-room:

"Now, my dear, we'll stick him away somewhere. Put him in one of the stockings, and hang him up."

"That's me," groaned Bijah. "He's going to make a present of me to somebody. O, dear! I wish I could run away."

But he could not, for there was Liph and there was Bush, and it was growing dark.

"Now, my dear," went on grandfather, "I'll just light up, and then I'll go and meet that train. I'll bring Prue and her folks, and Pat'll meet the other, and bring Ellen and hers. Won't the old house be full this time?"

"He caught some more, somewhere," whispered Bijah to himself. "I wonder who'll get 'em? Who'll get me?"

That was an awful question, but Liph and Bush all but ran against him just then, and he heard grandmother say:

"You'll have to stick candles on the windowsills; I can't spare any lamps for upstairs."

"But, my dear, it's got to be lit up—every room of it. I want 'em to know Christmas is coming."

"That's what they were all saying at the 'sylum, this morning," thought Bijah, "and here I am, right where it's coming to."

So he was; and he and Liph and Bush watched them finish setting the supper table, till suddenly Bush gave a great bark and sprang away toward the front door. Grandfather Vrooman had hardly been gone from the house an hour; and here he was, back again.

Jingle, jingle, jingle. How the sleigh-bells did dance as that great load of young folk came down the road; and what a racket they made at the gate; and how Bush, and Liph, and grandmother, and the rest did help them!"

"He's caught 'em all," said Bijah, "but they ain't scared a bit."

No one would have thought so if they had seen Mrs. Prue Hopkins and her husband and her six children follow Grandfather Vrooman into the house.

They were hardly there, and some of them had their things on yet, when there came another great jingle, and ever so much talking and laughter, down on the other road.

"He's caught some more. Some are little and some are big. I wonder who'll get the baby?"

Bush was making himself hoarse, and had to be spoken to by Mr. Hardy, while Mrs. Simpson tried to unmix her children from the Hopkinses long enough to be sure none of them had dropped out of the sleigh, on the road.

Then Liph set to work to introduce his

cousins to Bijah, and Bush came and stood by his new friend in gray, to see that it was properly done.

"Where'd you come from?" said Joe Simpson.

"'Sylum," said Bijah. "Where'd he catch you?"

"Catch what?" said Joe, but Liph managed to choke off the chuckle he was going into and to shout out:

"Why, Joe, we found him in the road today. He thinks grandfather's old Santa Claus and this house is Christmas."

"So I am—so it is!" said Grandfather Vrooman. "We'll make him hang up his stocking with all the rest to-night."

Bijah could not feel scared at all with so many children around him, and he was used to being among a crowd of them. Still, it was hard to feel at home after supper, and he might have had a blue time of it if it hadn't been for Liph and Bush. It had somehow got into Bush's mind that the dot in gray was under his protection, and he followed Bijah from one corner to another.

All the doors in the "dark room" were open, and it was the lightest room in the house, with its big fire on the hearth and all the lamps that were taken in after supper; but there was not one thing hanging on the Christmas-tree until Grandfather Vrooman exclaimed:

"Now for stockings! It's getting late, children. I must have you all in bed before long."

"Stockings?"

They all knew what that meant, and so did Bijah, but it was wonderful how many that tree had to carry. Bob Hopkins insisted on hanging two pairs for himself, and Thad Simpson was begging his mother for a second pair when Liph Hardy came in from the kitchen with a great, long, empty grainbag.

"What in the world is that for?" asked grandmother, perfectly astonished. "Why, child, what do you mean by bringing that thing in here?"

"One big stocking for grandfather. Let's hang it up, boys. Maybe Santa Claus'll come and fill it."

There was no end of fun over Grandfather Vrooman's grainbag stocking, that was all leg and no foot, but Uncle Hiram Simpson took it and fastened it strongly to a branch in the middle of the tree. It was close to the trunk, and was almost hidden; but Liph saw Uncle Hiram wink at Aunt Ellen, and he knew there was fun of some kind that he had not thought of.

Grandmother Vrooman had been so busy with all those children from the moment they came into the house that she had almost lost her anxiety; but it came back to her now all of a sudden.

"Sakes alive! Jane," she said to Mrs. Hardy, "every last one of em's got to be in bed before we can do a thing with the stockings."

Bijah heard her, for he was just beyond the dining-room door, with a cruller in each hand, and it made him shiver all over.

"I wish I was in the 'sylum. No, I don't either, but I kind o' wish I was."

Bijah was a very small boy, and he had not seen much of the world; but his ideas were almost as clear as those of the other children and Grandmother Vrooman for the next fifteen minutes. The way the Simpson and Hopkins families got mixed up, with Liph and Sue Hardy to help them, was something wonderful. Old Bush wandered from room to room after them, wagging his tail and whining.

"Mother," exclaimed Mrs. Hardy at last "the bed you made on the floor in the storeroom!"

"Just the thing for him. All the rest go in pairs. I'll put that poor little dear right in there."

So she did, and not one of her own grandchildren was tucked in warmer than was Bijah. He did not kick the bedclothes off next minute, either, and he was the only child in the house of whom that could be said. Grandfather Vrooman paid a visit of inspection all around from room to room, and Bush went with him. It took him a good while. When he came to the storeroom and looked in, Bijah's tired eyes were already closed as tight as were the fingers of the little hand on the coverlet, which was still grasping a cruller.

He was fast asleep, but Grandfather Vrooman was not; and yet when Bush looked up at him, the old man's eyes were shut, too, and there was a stir in his thick, white beard as if his lips were moving.

Things got pretty still after a while, and then there began a steady procession in and out of the "dark room," which was not dark.

Boxes went in, and bundles, and these were opened and untied, and their contents spread out and looked at and distributed. It was no wonder Grandfather Vrooman's big sleigh had been so full, and the one Pat had driven, when they brought the Hopkins and Simpson families from the north and south railway stations.

Grandfather himself went away out to the barn once for something he said he had hidden there, and while he was gone Aunt Ellen Simpson and Uncle Hiram slipped a package into the grain bag, and grandmother handed Uncle Hiram another to slip in on top of it, and Uncle John Hardy and Uncle Martin Hopkins each handed him another, and the bag was almost half full, but you could not see it from outside; and then they all winked at each other when grandfather came in with a back-load of sleds. Grandmother may have thought she knew what they were winking about, but she didn't, for Uncle Hiram whispered to Aunt Ellen:

"I'm glad its a big stocking. One'll do for both of 'em."

It was late when they all went to bed, and there was so much fire in the fireplace they were half afraid to leave it, but Grandfather Vrooman said it was of no use to try and cover it up, and the room would be warm in the morning.

When they got upstairs the children must all have been asleep, for there was not a sound from any room, and the older people went to bed on tiptoe, and they had tried hard to not so much as whisper on the stairs.

CHAPTER III.

Oh, how beautiful the country was when the gray dawn came next morning!—white and still in the dim and growing light.

So still! But the stillest place was the one Bijah woke up in. He could not guess where he was at first, but he lay a while and remembered.

"Santa Claus's house, and they're all real good. He's going to give me to somebody as soon as it's Christmas!"

He got up very quickly and looked around him. It was not dark in the storeroom, for there was a great square hole in the middle of the floor, and a glow of dull, red light came up through it which almost made Bijah feel afraid.

There was his little gray suit of clothes, cap and all, close by his bed on the floor, and he put them on faster than he ever had done it before.

"Where's my other stocking?"

He searched and searched, but it was of no use, and he said, "I can't run away in the snow with a bare foot."

He had been getting braver and braver, now he was wide awake, and he crawled forward and looked down the scuttle-hole. He knew that room in a minute, but he had to look twice before he knew the tree.

"Ever so many stockings! And they're all full. Look at those sleds! Oh, my!"

Whichever way he looked he saw something wonderful, and he began to get excited.

"I can climb down. It's just like going down stairs."

It was just about as safe and easy, with all those branches under him, and all he had to do was to sit on one and get ready to sit on the next one below him. He got about half way down, and there was the grain bag with its mouth wide open. Just beyond it on the same bough, but farther out, there hung a very small stocking indeed.

"That's mine!" exclaimed Bijah. "It's cram full, too. They've borrowed it, after all theirs were full. I want it to put on now, but I can't reach it out there."

Just then he began to hear noises upstairs, and other noises in the rooms below—shouts and stamping, and people calling to one another—and he could not make out what they were saying.

"Oh, dear! they're coming. Santa Claus is coming. What'll I do?"

Bijah was scared; but there was the wide mouth of Grandfather Vrooman's grain-bag "stocking," and almost before Bijah knew what he was doing he had slipped in.

Poor Bijah! The moment he was in he discovered that he could not climb out. He tried hard, but there was nothing on the sides of the bag for his feet to climb on. Next moment, too, he wanted to crouch down as low as he could, for all the noise seemed to be coming nearer.

So it was, indeed, and at the head of it were grandfather and grandmother and the other grown-up people, trying to keep back the boys and girls until they should all be gathered.

"Where's Bijah?" asked grandfather, after he had counted twice around, and was sure about the rest.

"Bijah!" exclaimed Liph. "Why, I looked in the storeroom; he isn't there."

"Hope the little chap didn't get scared and run away."

"Dear me—through the snow!" exclaimed grandmother.

"Of course not," said Aunt Jane. "He's around somewhere. Let's let the children in. They're all here."

"Steady, now!" said grandfather, as he swung open the door into the "dark room." "Don't touch anything till we all get in. Stand around the tree."

He himself stepped right in front of it, and he looked more like a great, tall, old Santa Claus than ever as he stood there. The children's eyes were opening wider and wider as they slipped around in a sort of very impatient circle; but grandfather's own eyes shut for a moment. It was only for a moment, but when he looked around again he said:

"Now, children, wait. Which of you can tell me what child it was that came into the world on the first Christmas morning?"

They had not been quite ready to answer a question that came so suddenly, and before any of them could speak, a clear, sweet little voice came right out of the middle of the tree:

"I know. And the shepherds found Him in a manger, and His mother was with Him. He sent down after my mother last summer."

"Bijah!" exclaimed grandfather, but grand mother was already pushing aside the boughs, and now they all could see him. Only his curly head and his little shoulders showed above the grain bag, and Uncle Hiram shouted:

"Father Vrooman, he is in your stocking! Who could have put him there?"

"I think I know," said grandfather, in a very low, husky kind of voice; but all the Simpsons and Hopkinses and Hardys broke loose at that very moment, and it took them till breakfast time to compare with each other the things they found in their stockings, and all the other wonderful fruits of that splendid Christmas tree.

Bijah was lifted out of the bag, and he got his stocking on, after it was empty. For some reason he couldn't guess why all the grown up people kissed him, and grandfather made him sit next to him at breakfast.

That was a great breakfast, and it took ever so long to eat it, but it was hardly over before grandmother followed grandfather into the hall, and they heard her say:

"Now, husband, what are you wrapping up so for, just to go to the barn?"

"Barn! Why, my dear, I'm going to town. I told Pat to have the team ready."

"To town? Why, husband—"

"Mother, there'll be stores open to-day. I can buy cords of toys and candy and things. When I get to the Orphan Asylum, to tell 'em what has become of Bijah, and why he won't come back there again, I'm going to have enough to go around the rest of 'em—I am, if it takes the price of a cow."

"Give 'em something for me."

Uncle Hiram heard it, and he shouted "And for me," and Uncle John followed, and all the rest, till the children caught it up, and there was a contribution made by every stocking which had hung on that Christmas tree. They all gave just as fast as they understood what it was for, and the last one to fully understand was Bijah.

"You ain't going to take me?"

His lips quivered a little.

"No, Bijah, not unless you want to go. Wouldn't you rather stay here?"

"Course I would."

That was not all, for both his hands were out, holding up the store of things which had come to him that morning, and he added, "Take 'em."

Something was the matter again with Grandfather Vrooman's beard, but he told Bijah he would get plenty of other things in town

"Keep 'em, Bijah. Good-by, all of you. I'll be back in time for dinner. Children, you and Bush must be kind to Bijah. He came to us on Christmas morning, and he has come to stay."

Bush and the children did their part, and so did all the rest, and so did Bijah, and so it was a perfect Christmas.—Harper's Young Folks.

How to Give the Present.

SAYS Miss Thoughtful: "How shall I give my Christmas gift?" writes Ruth Ashmore in the Christmas number of *The Ladies' Home Journal*. I answer: "Do not give it, my dear, send it; or if you are in the same house with those for whom you have prepared something, put it where it may be found when you are not about. Of course, you are going to make every gift have a holiday air. That is, some of the pennies will go to buy sheets of white, yellow, brown, pink and blue tissue paper, and more pennies will go to buy some pieces of Tom Thumb ribbon to tie them up with. Use yellow ribbon on the brown, white on the yellow, blue on the pink, pink on the blue, and if you should get a scarlet paper, though I do not think it is so very pretty, make it gorgeous with gold thread."

Little Johnts' Christmas.

HER we got it up a-purpose, jes' fer little Johnts, you know;
His mother was so pore and all, and had to manage so—
Jes' bein' a war-widder, an' her pension mighty slim;
She'd take in weavin', er work out, er anything fer him.

And little Johnts was puny-like—but law! the nerve he had!
You'd want to kindo' pity him, but couldn't very bad—
His pants o' army blanket and his coat o' faded blue
Kept hintin' of his father like, and pity wouldn't do!

So we collogued together, onc't one Winter-time, 'at we—
Jes' me and mother and the girls, and Wilse, John-Jack and Free—
Would jine and get up little Johnts, by time 'at Christmus come,
Some sorto' doin's don't you know, 'at would su'prise him some?

And so, all on the quiet, she turns in and gits
Some blue janes—cuts and makes a suit; and then sets down and knits
A pair o' little galluses to go 'long with the rest—
And puts in a red flannel-back, and buckle on the vest.

The little fellow'd be'n so much around our house, you see,
And be'n such a he'p to her and all, and handy as could be,
'At mother couldn't do too much for little Johnts—no sir!
She us't to jest declare 'at he was "meat-and-drink to her."

And Piney, Lide and Madaline, they watched their chance and rid
To Fountaintown with Lijey's folks; and bought a book, they did,
O' fairy-tales with pictures in; and got a little pair
O' red top boots 'at John-Jack said he'd b'n a-pricen there.

And Lide got him a little sword, and Madaline a drum;
And shootin'-crackers—lawzy-day! and they're so dangersome!
And Piney, ever' time the rest would buy some other toy,
She'd take and turn in then and buy more candy fer the boy!

Well, thinks-says I, when they got back, your pocketbooks is dry!—
But little Johnts was there hisse'f that after noon, so I—
Well, all of us kep' mighty mum tel we got him away
By tellin' him be shure and come to-morry—Christmus Day—

And fetch his mother 'long with him! And how he scud acrost
The field, his tow head in the dusk, jes' like a streak o' frost!—
His cumfert fluttern as he run—and old Tige, don't you know,
A-jumpin high fer rabbits, and a-plowin' up the snow!

It must a be'n most ten that night afore we got to bed—
With Wilse and John-Jack he'ppin' us; and Freeman in the shed,
And Lide out with the lantern while he trimmed a Christmus tree
Out of a little scrub-oak top 'at suited to a t!

All night I dreamp o' hearin' things, a-skulking round the place—
And "Old Kriss" with his whiskers off, and freckles on his face—
And reindeers, shaped like shavin'-hosses at the cooper-shop,
A-stickin' down the chimney, with their heels out at the top.

By time 'at mother got me up 'twas plum daylight and more—
The front yard full o' neighbors, all a-crowdin' round the door,
With Johnts' mother leadin'; yes, and little Johnts hisse'f
Set up on Freeman's shoulder, like a jug up un the she'f!

Of course I can't describe it when they all got in to where
We'd conjered up the Christmus-tree and all the fixin's there—
Fer all the shouts o' laughture—clappin' hands and crackin jokes,
Was heap o' kissin' goin' on amongst the woman folks;—

Fer lo-behold ye! there they had the youngun! And his chin
A-wobblin'-like;—and, shore enough at last he started in—
And—sich unother bellerin', in all my mortal days
I never heered, er 'spect to hear, in woe's appointed ways!

And mother grabs him up and says: "It's more' he can bear—
It's all too suddent for the child, and too su'prisin'!—There!"
"Oh, no it ain't"—sobbed little Johnts—"I ain't su'prised—but I'm
A-cryin' 'cause I watched you all and knowed it all the time!"

—JAMES WHITCOMB RILEY.

What Came to Mr. X.

Fresno Expositor.

FROM report, we understand that Mr. and Mrs. X are very respectable people and residents of our charming city. They have been married for some dozen years, and but for one thing their lives would have passed along as smoothly as a sea of glass. That obstacle to their happiness which stood ever before them, like a rock in the sea of matrimony, and threatened their connubial craft, was the fact that they had never been blessed with children. Each severely excused himself or herself, and accused the other of being at fault, and so acrimonious had the dispute become that relatives and friends heard of it more than once.

They were not only highly respectable people, but were earnest and active church members as well. During the present season the good ladies of the church have been making extra efforts to embellish the interior of the edifice for Christmas, and Mrs. X determined to adorn one of the windows for the occasion. Just about this time Mr. X went to San Francisco to spend a fortnight, visiting with the family of his brother, and after being there a few days received a letter from his spouse requesting him to procure a handsome ivorine card the size of the window and have it elegantly embellished with an appropriate text of scripture.

Woman-like, she had avoided all particulars, and after visiting the proper places and finding that he would be able to fill the order, Mr. X telegraphed to his wife as follows:

"Send text wanted and size of window."

The next day he returned to his brother's domicile at the regulation lunch hour of high 12, only to find the whole house in a terrific uproar. His brother extended most hearty congratulations, his sister-in-law even went so far as to embrace and kiss him—a familiarity she had not indulged in for years.

"What is the occasion of all this massive demonstration?" he asked, as soon as he could get an opportunity.

"Why, you have got a baby at your house at last," responded fourteen voices in chorus.

"What yer givin' us—taffy?" slangily interposed Mr. X.

"Naw; nothin' but straight goods," answered the sister-in-law, in the same strain, as she again embraced him.

"Impossible; not a sign of such good luck in sight when I left last week."

"Well, just read this," said the sister-in-law, handing him a familiar bit of yellow paper, such as messages are written upon. He took it, unfolded it carefully, and his astonished eyes fell upon the following:

FRESNO (Cal.), Dec. 14.—*Mr. X, care of Mrs. T., 14,807 Valencia street, San Francisco.*—Unto us a child is born, nine feet long and four feet broad. MRS. X,

Charges paid.

Burdette on Christmas.

TO me it seems—and it isn't my fault that the sunset is fairer and lovelier than the sunrise—that there was something more Christmasy about Christmas when I was a boy. Its pleasures were simpler, its gifts were heartier. At least, I cannot remember to have read, save in these later years, articles in family journals and magazines bewailing the burden of toil and worry and expense in the planning and making, or purchasing of Christmas presents. "Krismus gifs" we called them when I was a boy. It didn't and doesn't have much refinement of culture in the spelling and the sound thereof. But the people who made them didn't rush into the papers to tell how much it cost them, and how tired to death it made them, and how glad they were that it was all over for another year. But last year and the year before I read such articles in print. So did you. Wherefore it seems to me that we killed Kris Kringle a full century too soon. We have more currants in our Christmas cake under the reign of Santa Claus, it is true. But we have also more flies in it.—ROBERT J. BURDETTE.

CONDUCT IN COMPANY. — Whispering and giggling in company betray lack of dignity and self-respect. Significant glances which have any possible meaning are against all the canons of good society, whilst differences of opinion should be received with patience and courtesy, for loud and overbearing contradiction does not belong to the code of good laws and good manners.

Ole Bull's Christmas Present.

AS a tall, dignified-looking gentleman was walking leisurely along one of the by-streets of London, Christmas Eve, his attention was attracted to a little boy who was looking in at a shop-window in which were displayed various articles for sale. As the gentleman, approached the little boy, he saw that his gaze was fixed upon a violin that hung in the window. Upon coming nearer he heard him singing a familiar melody in a sweet voice, which he accompanied with movements of his arms and fingers as if he were playing the violin. He stopped to listen, quite charmed at the innocent, childish spectacle. Just then the little boy looked up.

"Do you think you could play as well upon that violin, as you can sing, my little fellow?"

"I don't know, sir, but I would like to try," the boy replied.

"Come with me," said the gentleman, and together they went into the shop. "How much for that violin?" he asked.

"Five pounds."

"Too much by half," said the gentleman.

After being shown five or six other violins, which he rejected after merely glancing at them (the little boy's big blue eyes looking more and more wistful all the time), the shopkeeper handed out a dingy, antiquated-looking violin, with the remark, "Here's an old fiddle that I got of a sailor. It needs fixing up a bit, but you can have it just as it is for £1, 10s." The gentleman scrutinized it closely, inside and out, remarked that it was very much out of repair, but said that he would give just £1 for it, which the shopkeeper, after some hesitation, accepted, and the money was paid him.

"Put on a string in place of this broken one," said the gentleman; "and furnish me a good bow—I will pay extra for it."

While this was being done, the gentleman looked down at the little, pale, wondering face upturned to his, and said, "What is your name?"

The boy quickly responded, "Leo! and my father rings the chimes—if you hark, you can hear 'em now!" The gentleman listened for a moment or two, and as the sound of the grand old bells died away the shopman handed him the violin and bow ready for use. After tuning the instrument carefully, he unbuttoned his fur-trimmed traveling coat, and placing the violin under his chin, began softly and sweetly to play the tune which the Christmas bells had just rung out. For some minutes he continued to play, weaving the air into every conceivable kind of variation, and ended by playing the melody once more accompanied with harmonics and brilliant arpeggios. After the violin and bow had been placed in the box, he handed it to the bewildered boy, and patting him on his curly head, remarked as he buttoned up his great overcoat: "Carry the violin home with you and take good care of it; it is worth £100 at least. Learn to play the tune I heard you singing outside the window, and as many more as you can. Tell your father to get you a good teacher. You may keep the violin; *it is a Christmas present from Ole Bull.*" He opened the door for his little protege, and passed out into the crowd just as the Christmas bells rang out again their merry chime.—Our Dumb Animals.

OLD SANTA CLAUS AT WORK.

The Brakeman's Christmas Story.

FUNNY things occurred down at our house Christmas, said the brakeman. "I'm away almost every night in the year, but Christmas night I got a lay-off and staid home with the wife and babies. Next door to us lives one of the stingiest old codgers that ever was. Wheeler is his name, and everybody calls him Stingy Wheeler. He is an old chap who has no children and no friends, and who is said to be worth a good deal of money. I've had a good deal of sickness in my house this winter, and times have been right hard with us. It was mighty little Christmas we had, I can tell you.

"'Well, there's one thing we can say, Henry,' said my wife to me, 'and that is that our house is not hard to warm. It beats all the way coal does last us here. That half-ton you got a month ago isn't nearly all gone yet.'

"'That's the way coal lasts when there's nobody to steal it, as we had where we lived last,' I replied. 'Now there's only one man in this neighborhood I'd suspect of stealing coal, and that's Stingy Wheeler. I wouldn't trust that old codger very far.'

"'Neither would I,' said may wife.

"'That night, after we had got in bed, my wife woke me, saying she was sure she heard some one in the coalhouse.'

"'I believe it's old Wheeler,' I said.

"'So do I,' my wife replied; 'but be careful, Henry, and don't get into any trouble with the old skinflint,' she added, as I hastily dressed myself.

"Softly I tiptoed out to the coalhouse, and sure enough there was a man there, hard at work with a shovel. It was Stingy Wheeler, and he was throwing coal from his bin into mine!"—Chicago Herald.

A Christmas Dinner.

BY HELEN CAMPBELL.

NOT a dinner of seven or eight courses, to be expected when a chef is employed, and sighed for by many who have not yet attained to the million or so entitling the owner to a chef and all other troublesome luxuries. A dinner of this nature it is quite worth while to eat occasionally, if only to ensure gratitude that it need not be done every day. For these fascinating dishes, succeeding one another in such order that the appetite is awakened involuntarily, even when really satisfied, mean overfeeding, and the result of overfeeding is a succession of diseases, classed as "mysterious dispensations," but quite comprehensible to the physician. The modern dinner, in Sir Henry Thompson's suggestive little book, "Food and Feeding," is made responsible for most of the dyspepsia and kindred di[illegible] owned by the Americans in general, and, refusing to be a party in any transaction which shall assist in such result, I make a bill of fare sufficiently festive in character to fit Christmas or any winter's holiday occasion, yet not so crowded as to mean overwork for the housekeeper who may be forced to act as her own chef. This state of things is by no means so uncommon as is often asserted, for in spite of enormous fortunes, the mass of people must still count as "middle class," and must in spite of themselves retain acquaintance with the kitchen and its necessities. And if this preamble is regarded as unpleasantly superfluous, pass on to the menu, which holds nothing that is not practicable for the busy housekeeper, and which is minute enough in its directions to insure success for even an inexperienced one.

MENU.

Tomato soup without meat.
Roast turkey, giblet gravy.
Mashed potatoes. Canned corn pudding.
Cranberry jelly. Beets sliced.
Salad, mayonnaise of salmon.
Cheese. Water crackers.
Sweet potato pudding, creamy sauce.
Fruit. Nuts. Raisins.
Coffee.

For a Christmas Dessert.

CHRISTMAS CAKE.—Cream one pound of butter and sugar together, sift in one pound of flour, beat ten eggs separately and mix in. Blanch two pounds of almonds, seed one pound of raisins, and chop half a pound of citron. Grease a large cake pan, put in a layer of the cake batter, then a layer of raisins, almonds and citron; continue until the pan is full, putting the batter on top. Bake in a moderate oven two hours. When cold, ice in fancy designs and ornament with a wreath of holly.

CHRISTMAS PUDDING.—Wash and dry a pound of currants, stone a pound of raisins. Mix together dry a quarter of a pound of sifted flour, a quarter of a pound of stale bread crumbs, a quarter of a pound of brown sugar, a pound of finely chopped suet, and half a pound of cut candied orange peel, grate in half a nutmeg and one lemon. Beat five eggs, to which add a teacup of molasses, pour over the other ingredients and mix thoroughly. Pack in well greased mold and boil ten hours. Serve with hard sauce.

SANTA CLAUS CAKE. — Three cups of sugar, half a cup of butter, the whites of eight eggs, one pint of sifted flour, two teaspoonfuls of baking powder, and a tablespoonful of rose water. Rub the butter and and sugar to a cream, add the flour and baking powder, mix in a smooth batter, add a small teacup of sweet milk, and the flavoring, lastly stir in the stiffly beaten whites of the eggs. Bake in jelly cake pans. For filling make an icing of the beaten whites of four eggs, three cups of sugar flavored with vanilla—divide in half—in one portion mix a teacup of chopped almonds, in the other the same of finely chopped figs. Spread alternately on the layers of cake. Ice the top in fancy icing, and put in the center a little colored sugar figure of Santa Claus (which can be bought at the confectioner's).

SCALLOPED POTATOES.—Mince fine cold potatoes, put in a biscuit pan, sprinkle with bread crumbs, salt and pepper and bits of butter, and bake.

A cream of tartar baking powder. Highest of all in leavening strength.—*Latest U. S. Government Food Report.*

ROYAL BAKING POWDER CO., 106 Wall St., N. Y.

PATRONS OF HUSBANDRY.

Work of the Agricultural Department.

The Patrons of Husbandry throughout the country look with no little pride and satisfaction upon what has been accomplished by the Agricultural Department at Washington—the very existence of which is due to their persistent efforts. Secretary Rusk, in his late report, says that our domestic export trade of the past year aggregates the enormous sum of one thousand millions of dollars—80 per cent of which is made up exclusively of agricultural products. This large export of agricultural products is what is making this country the creditor of the world to the extent of two hundred millions in the excess of our exports over imports, and relieving our home markets of a surplus product which must otherwise have a tendency to reduce farm produce to a point below the cost of production. This favorable condition is largely due to the untiring work of the Agricultural Department in seeking for new markets abroad and in enlarging those already existing. It is altogether through the efforts of this department that we have an already large and fast-growing market for our surplus corn in Germany. An agent was sent over to instruct the people in the use of corn food. Mills were built to prepare the meal and instruction given in preparing it for the table. The result of these efforts has been a very large increase in the magnitude of the sales as well as in the price realized for the corn in that market. Similar work has also been done in removing the prejudice against American meats—especially in that of pork. The indications are that the increased takings of American meats in Europe this year will exceed those of last year fully 62 per cent, and about 20 per cent in prices. Successful efforts have also been made in advancing the price of cotton in Europe by reducing the area of production in this country and substituting therefor more mixed products on the cotton farm. Similar advice is also given by the department to the grain growers. Much attention has also been given to increasing our sugar product.

In further advancing the grain trade Secretary Rusk also points out that there are many reasons making a national standard of grain highly desirable, and concludes that some system of national inspection and grading must be established, in the interest of the grain growers, under the control of the Secretary of Agriculture.

The Secretary declares that the work of the department hitherto has been but foundation work, and says that since he has been in charge of it he has sought at all times, while preparing the foundation, to bear in mind the plans for an ultimate superstructure of which every American farmer and citizen will feel proud, and that he will be quite satisfied if, in the future, his share of credit in the history of the department will be that he was instrumental in laying a broad and lasting foundation. He shows how much the department has gained in the confidence of the farmers, and points out that every gain in this confidence imposes additional responsibilities upon the head of the department.

It should not be forgotten in this connection that the establishment of an Agricultural Department of the Government, and its final advancement to a full position in the Cabinet, has been almost exclusively due to the efforts of the Grange. This work, moreover, was accomplished in the face of the strongest opposition and the most persistent ridicule. The result has been of far greater value to the country than was hoped for by the most sanguine of its promoters, and in this, as in many other ways, the Granges of the country have done a most noble and patriotic work.

From Worthy Master Davis.

SANTA ROSA, Dec. 19, 1892.

Who will organize the first Grange during the new year, and where?

The sixth degree certificates have not yet been received from the National Grange. Patrons who received the sixth degree at San Jose need not be uneasy. The certificates will come in due time. Brother Trimble has had his hands full during the past two months, but he will come out all right in due time.

We hope the ladies of the farm will engage largely in the poultry business. There were more than 200,000 dozen eggs shipped to California in 1892. This State is the natural home of the fowl; let us see to it that we produce our own eggs. There is plenty of money in the poultry yard.

Do you want the Railroad Commission abolished? That subject will be before the Legislature. Inform your representative how you want him to vote on that matter.

Where will the next session of the California State Grange be held? Nominations are in order. The executive committee has one or two bids. Are others going to compete? If so, better file a claim now.

We want to establish the Grange in a good many local neighborhoods this spring. Won't some progressive farmer, fruitgrower or stockraiser send for blanks, constitution and charter outfit, and then go to work getting the charter list? Have a subordinate Grange in your section; it will be the means of imparting much pleasure and valuable information. All persons engaged in agriculture, 14 years of age, are eligible to membership. The Grange is a grand school, both for old and young. To all who want opportunities for self-improvement and to do good, the Grange opens a big field. The Grange is national, and therefore is strong in its organization, yet it is local in its application of benefits.

The Legislature will soon be in session. Keep an eye to the bills that are introduced. See how many of them are in the interests of the producing and industrial classes. See how your senator and your assemblyman vote. Tell him by petition and by personal letter how you *think* he should vote, so that the greatest good to the greatest number will be the result. That rule should govern all. The theory of a republican form of government is, "the majority shall rule." Let us *know* what the wish of the majority is, and then set about carrying out that wish.

A few copies of the journal of proceedings of the California State Grange session of 1892 are just received from the printer, Bro. Watson of the *Orchard and Farm.*

Report the election of officers to the RURAL PRESS, also the date of installation and name of installing officer.

Give us new thoughts with the new year.

Merry Christmas to all.

The National Grange proposes to have a roll-book for each State in the Union, so that Patrons visiting the World's Fair will enroll their names in the State roster. This book will give the name of the Patron, the Grange, his temporary stopping place at Chicago, the hours when at the rooms, etc., so that one Patron may, without too much trouble, find a brother or sister from any State. Grange literature is to be supplied, in the hope of introducing the Order to a great many farmers, who now know little or nothing of it. Editors and publishers of agricultural journals will find no better way of reaching thousands of advertisers and readers than by sending copies of their publications to "Grange Headquarters, World's Fair, Chicago, Ill."

The annual word for 1893 is ready for those Subordinates whose dues are paid to January 1, 1893. Members must be square with their own Grange before the master can impart the word.

The 26th session of the National Grange, Patrons of Husbandry, did not concur in the money-borrowing schemes that some of its prominent members proposed. There are not a few of the members of that body who are opposed to any plan of raising money whereby the Government is made a party to the mortgage contract. A good many Patrons think the rates of interest are too high, but many of those same Patrons are afraid that the plans proposed will only aid in landing the burdened farmer from the frying-pan into the fire. These same cautious farmers—and their name is legion—think it much better and safer to owe their debt to an individual, or even to a bank, than to a Government, to a body without soul, life or death. They fear the Government will be more exacting than is the private individual or corporation. In this they may be right.

E. W. D.

From Mr. Geo. Ohleyer.

YUBA CITY, Dec. 19, 1892.

TO THE EDITOR:—The waning year is chiefly valuable as supplying a milestone from which to view the past rather than to furnish an implement by which we may unvail the future, or words that shall form our good resolutions for the approaching year. Of the past we know something; of the future, nothing; and the best we can do is to drive ahead as if there were no end yet prepared for any emergency.

The central portion of the Sacramento valley has a history that will be written in prose and verse for generations to come. In the heart of this region lies the now-famous little county of Sutter, whose men are as brave, loyal and enterprising as any living, and whose women as handsome and true as the best upon earth.

Out of such material is composed the several Granges of the county of which Yuba City Grange is the pioneer, having been organized nearly twenty years ago. This Grange felt called upon to inaugurate and sustain many reforms during its existence, and always flourished most when confronting a foe worthy of its steel. It is not my purpose to speak of these matters at length or in detail, only referring to them as showing that, through severe training, it became as natural for the people to flock together for offensive and defensive purposes as it was for them to retire after a hard day's work.

SUTTER COUNTY

Is a community of small farms and small fortunes, hence the people, to make their numbers powerful, formed themselves into cooperative associations for the construction of grain warehouses on river or rail; for the maintenance of a public press in their interest; for the construction of a fruit cannery and the creation of a market for the luscious fruits of the county; and last but not least, the creation of adequate educational facilities at home for our youths.

Many, if not all, of these thoughts were first uttered in the Grange and the fruits thereof are abundant and permanent.

Our latest agitation is for a Grange hall. The matter is in the hands of a thoroughgoing and competent committee and the indications point to the erection of a commodious hall during the approaching year. The recent

POLITICAL DISTURBANCE

Has been almost forgotten and the result seems to be satisfactory to everybody.

No one in this section had the slightest suspicion that any of the so-called side tickets had the least chance of success, hence but few votes were "thrown away" on them, as the average voter would say. Most of those with whom I have conversed, and of all parties, say they are more than willing and even anxious that the victors shall have entire control of the Government this time, to the end that the responsibility of success or failure may be fixed beyond doubt,

THE RAILROAD QUESTION

Cuts but a small figure in our county. This is because the county is bordered and severed by navigable rivers, rendering the people independent of them, and so long as they can maintain their navigability they will enjoy the services of the best of freight regulators.

In this effort they have now the willing and powerful aid of the general Government. Nevertheless, our county's fertile farms, orchards, vineyards; flocks and herds have attracted the iron horse and he is daily drawing heavy trains through the county lengthwise from and toward the seaboard, and every resident can go from his home to the ocean metropolis and return the same day, none residing beyond the sound of the moving steam whistle.

Of one thing we are properly solicitous, and that is, shall the coming legislature be in the interest of the people or of the boodlers? Have the several parties exercised more care than in recent years in the selection of their servants, and what has the Grange done toward purifying the body politic? are questions we may propound to ourselves.

AGRICULTURE AND COMMERCE

Are by far the leading interests of our State, and yet at times one is led to believe both are tied down like a lion, knowing not or choosing not to exert their strength.

Two years ago it was said that ten men in each house of the Legislature, having the balance of power, governed the body, defeating many desirable measures and enacting undesirable ones. Should not the weightier interests profit by this lesson and demand a union of their immediate representatives for good works?

A small number, doubtless, of Patrons of Husbandry have secured seats in that body; these could furnish the nucleus around which other agriculturists and their friends could assemble and unite on all nonpolitical measures for their mutual benefit, and thus form a balance of power that would be respected for their strength, if not for their laudable principles.

GEO. OHLEYER.

A Grange Wedding.

SACRAMENTO, Dec. 17, 1892.

On Dec. 14th about two hundred guests assembled at Grangers' Hall to witness the marriage ceremony of De Witt S. Slosson, a well-known young farmer, and Miss Clara E., only daughter of Geo. W. Hack, Grange Lecturer of this county. The young couple set sail upon the sea of matrimony with the best wishes of all who know them. They encountered a heavy storm at the beginning of their journey, but it was of rice showered upon them by kindly hands. This is the seventh wedding within ten years where both the contracting parties were members of Sacramento Grange.

On Dec. 10th, to the house of Edwin Thistle (well known to readers of the PRESS), was born a son and heir.

Members of Sacramento Grange and their families will remember that the social occurs on New Year's Eve. Each member is privileged to invite one friend. Members of other Granges are cordially invited to be present.

MRS. A. M. WILLIAMS,
Chairman of Committee.

The Secretary's Column.

By A. T. DEWEY, Secretary State Grange of California.

GRANGE ELECTIONS.

[Secretaries are requested to send us as early reports as possible for publication under this head.]

GRIMES GRANGE.—Election Dec. 15; officers chosen: H. D. Strother, M.; F. Schillig, O.; Mrs. W. W. Kilgore, L.; G. Beckley, S.; J. J. Morriss, A. S.; Mrs. T. D. Watson, C.; Mrs. C. Gleason, T.; J. H. Balsdon, Sec.; W. W. Kilgore, G. K.; Leone Kilgore, L. A. S. Date of installation, Feb. —, 1893.

LIVE OAK GRANGE.—Election Dec. 10; officers chosen: D. Fisher, M.; Jas. Hedger, O.; Mrs. Denny, L.; Miss Mould, S.; W. R. Johnson, A. S.; Mrs. Wilkinson, C.; Wm. Mould, T.; Mrs. Ella Hedger, Sec.; B. F. Hedger, G. K.; Mrs. Porter, Ceres; Miss Marian Rothney, P.; Miss Jennie Luther, F.; Miss Maud Brenton, L. A. S.; A. E. Davis, Trustee; Mrs. Ada Hedger, Organist. Date of installation, January 14, 1893.

MAGNOLIA GRANGE—Election Dec. 10; officers chosen: Jackson Cunningham, M.; J. W. Gautier, O.; W. H. Cunningham, L.; Lee Bilderback, S.; Edwin Lloyd, A. S.; Mrs. Robt. Elder, C.; May F. Gautier, T.; C. D. Bilderback, Sec.; Robt. Elder, G. K.; Mrs. Annie Cunningham, Ceres; Mrs. J. R. Nickeson, P.; Birdie Bilderback, F.; Bessie Still, L. A. S.; J. R. Nickeson, Trustee. Date of installation, January 14, 1893.

NEW HOPE GRANGE.—Election Dec. 7; officers chosen: W. E. Journeay, M.; Mrs. O. Short, O.; Geo. H. Barber, L.; P. A. Kise, S.; O. Tubbs; A. S.; Mrs. Geo. Carleton, C.; A. Thornton, T.; Geo. Connor, Sec.; W. W. Fogg, G. K.; Mrs. A. Bryant, Ceres; Mrs. P. A. Kise, P., Mrs. W. E. Journeay, F.; Mrs. Geo. Connor, L. A. S. Date of installation, Jan. 7, 1893.

PETALUMA GRANGE.—Election Dec. 10; officers chosen: C. D. Grover, M.; D. Walls, O.; T. Skillman, L.; Mrs. D. M. Winans, S.; M. D. Hopkins, A. S.; Mrs. D. S. Dickson, C.; A. S. Hall, T.; D. G. Heald, Sec.; J. Rodenhurst, G. K.; Mrs. C. D. Grover, Ceres; Mrs. T. Skillman, P.; Miss Sarah Heald, F.; Miss Mary Kelsey, L. A. S.; E. L. Charles, Calvin Todd, Trustees. Date of installation, Jan. 14, 1893.

PESCADERO GRANGE.—Election Dec. 17; officers chosen: I. C. Steele, M.; Laura Weeks, O.; Geo. G. Smith, L; J. H. Creed, S.; Isa Steele, A. S.; Chas. F. Wilson, C.; B. V. Weeks, T.; A. M. Piper, Sec.; Harry Piper, G. K.; Jessie Leighton, Ceres; Nettie Adair, P; Bertha Seeley, F.; Lizzie Chrisman, L. A. S. Date of installation, first Saturday in January, 1893.

SACRAMENTO GRANGE.—Election Dec. 10; officers chosen: E. Greer, M.; P. B. Green, O.; Mrs. A. M. Williams, L.; Geo. L. Hamilton, S.; D. Flint, A. S.; Geo. Rich, C.; H. W. Johnson, T.; Elmer G. McMullen, Sec.; S. H. Jackman, G K.; Mrs. E. Greer, Ceres; Miss Nettie Teeple, P.; Miss Delma Green, F.; Mrs. D. Flint, L. A. S.; Geo. C. McMullen, Trustee. Date of installation, Jan. 14, 1893.

STOCKTON GRANGE.—Election Dec. 10; officers chosen: Marion T. Noyes, M.; Jno. L. Beecher Jr., O.; Mrs. Irene E. Leadbetter, L.; Nathan H. Root, S.; Theodore S. Cole, A. S.; Mrs. W. D. Ashley, C.; Jos. Adams, T.; Nathan T. Root, Sec.; Norman E. Alling, G. K.; Mrs. Cora Beecher, Ceres; Miss Flora Harelson, P.; Miss Anita Leadbetter, F.; Miss Bessie M. Alling, L. A. S.; Thos. E. Ketcham, Trustee. Date of installation, January 7, 1893.

TEMESCAL GRANGE.—Election Dec. 17; officers chosen: Walter Renwick, M.; Maurice Woodhams, O.; Mrs. Sarah H. Dewey, L.; Mr. Stevens, S.; Alfred H. Dewey, A. S.; Mrs. Sarah A. Whidden, C.; L. Frink, T.; Mrs. Nellie G. Babcock, Sec.; Mrs. M. A. Renwick, G. K.; Mrs. Kate McGrew, Ceres; Miss Sarah A. Winchester, P.; Miss Stella Lufkin, F.; Mrs. Stevens, L. A. S.; A. T. Dewey, Trustee; Miss Anita M. Dewey, Organist. Date of installation, Jan. 7, 1892.

WASHINGTON GRANGE.—Election Dec. 17; officers chosen: Nelson Dill, M.; Miss Frankie Howard, O.; James Richey, L.; Lyman Nixon, S.; Jeff Giles, A. S.; C. B. Taft, C.; Charles Blyther, T.; Sam C. Watters, Sec.; Chas. Child, G. K.; Miss Mamie Taft, Ceres; Miss Carrie McIntire, P.; Miss Laura Nixon, F.; Mrs. Rosie Giles, L. A. S.; Will McIntire, Trustee. Date of installation, January 13, 1893.

TULARE GRANGE.

We had the pleasure of visiting this good old Grange last Saturday. E. C. Shoemaker, W. M., presided. Overseer Tuohy, chairman of the committee of conference with the Alliance and Board of Trade, as to

(*Continued on Page* 546.)

INFORMATION FOR SETTLERS!

The members of the Kern County Land Company have a national reputation for wealth, business and financial ability. These facts set the matter of reliability at rest. The company's capital stock is $10,000,000.

They have 400,000 acres of arable, irrigable lands upon which the sun shines almost constantly; and their enormous irrigation system renders them independent of the annual rainfall.

A clear title; rotation, variety and certainty of crops; easy terms; availability to persons in moderate circumstances; ground ready for the plow—no stones nor thistles; good society; schools; churches, etc., are a few notable attractions of this region of country.

Kern is the largest county in the San Joaquin Valley. It has the finest climate for curing and drying fruits, etc.

The 400,000-acre territory of the Kern County Land Company is the pick of the county.

Its area is 5,184,000 acres.

Has the largest irrigation system in America.

The home of the peach, French prune, pear and raisin grape.

Planting and harvesting can be carried on every month in the year.

No rocks, hills or stumps on the land.

A failure of crops is unknown on irrigated lands.

Kern county fruits take the first prize at the State Fair.

Land can be made to pay for itself in less than three years.

Grows more alfalfa than any other county in California.

The advantages of good soil and plenty of sun, which occur in the Kern Valley, would have been of little avail but for the third and all-important one of an abundance of water from never-failing sources.

Through 300 miles of main canals, and 1,100 miles of laterals, the great Kern river furnishes enough moisture to slake the thirst of the 400,000 acres already referred to.

Drought is out of the question.

The system has been constructed in the most careful and scientific manner. Some of the canals are 125 feet wide and six feet deep.

FOR FURTHER PARTICULARS ADDRESS

KERN COUNTY LAND COMPANY.

S. W. FERGUSSON,
Bakersfield, - - - California.

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POTATO-PLANTER

PLANTS Corn, Beans, Ensilage, Etc., Etc.

DISTRIBUTES FERTILIZERS.

Absolutely Guaranteed.

It Marks. It Furrows. It Drops. It Covers.

ALL IN ONE OPERATION.

POTATO CUTTER

A Boy Can Operate It.
Cuts Potatoes for Seed Faster than Eight Men Can by Hand.
Will Pay for Itself In One Day.
FULLY WARRANTED.

Simple In Construction.

It consists of a series of knives secured in an opening of the table. The potato is placed in a pair of hinged jaws above the knives, and by a plunger the potato is cut at a single stroke and the eyes divided in a most satisfactory manner. The screen below frees the seed from dirt or chips and more thoroughly prepares the cuttings for planting.

CORN & BEAN DRILL

THE BEST AND CHEAPEST RIDING PLANTER IN AMERICA.

The price places it within the reach of all.

Thoroughly practical.

Plants 10 to 12 acres per day.

EXTRA SLIDES for planting PEAS, BEANS, etc. with every machine.

Furnished plain or with fertilizer attachment. Capacity of distributing from two hundred to one thousand pounds per acre.

Catalogue of potato and corn planting machinery **FREE.** Address

ASPINWALL MANUFACTURING CO., Jackson, Mich., U. S. A.

AN OLD STYLE PULVERIZER.

Especially adapted to pulverizing "bottoms"—one man and a small boy can operate it.

THE LATEST STYLE

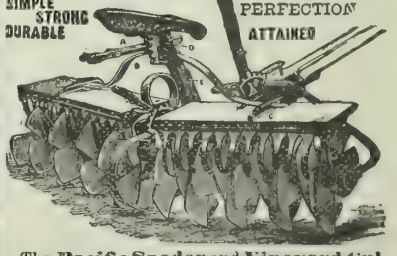
PULVERIZER!

— THE —

PACIFIC SPADER!

Operated by one small Boy. No Man requised.

SOMETHING NEW! FINEST IMPLEMENT IN THE MARKET. SIMPLE STRONG DURABLE PERFECTION ATTAINED



The **Pacific Spader** and **Vineyard Cultivator.** Does more work in one stroke than a Disc Harrow in ten. Sizes, 5½ to 12 feet.

TRUMAN, HOOKER & CO.
SAN FRANCISCO and FRESNO.

— SIZES: —

No 5D—	5½-foot	Spader	16-inch	Blades
No. 6D—	7 "	"	16 "	"
No. 10D—	5½ "	"	20 "	"
No. 14D—	7 "	"	20 "	"
No. 16D—	8 "	"	20 "	"
No. 20D—	10 "	"	20 "	"
No. 24D—	12 "	"	20 "	"

Linden, Cal., Nov. 26, 1892.

Messrs. Truman, Hooker & Co.,
San Francisco, Cal.

Gentlemen:-I was induced by your agent, Mr. I. O. Fowler, to purchase one of your PACIFIC SPADERS, which I have tested on some very hard land and must say it does its work to perfection. I will say to all who contemplate purchasing a Cultivator to take the Pacific Spader every time. I remain

Yours very truly,
C. V. Webb.

LADIES! A valuable book on Good Health will be sent free at your request. Address, Bicura Company, 230 Sansome St, San Francisco.

PILES disappear when Oleate of Bicura is used. Sent by post.

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AGRICULTURAL NOTES.

CALIFORNIA.

Lassen.

H. W. MYERS claims to have killed six jack-rabbits in five shots with a rifle.

Fresno.

FRESNO COUNTY will exhibit 5000 oranges and 1000 lemons at the World's Fair—about 45 boxes.

Colusa.

WILD-GEESE are said to be so numerous in Colusa county that the people there are talking of starting a goose cannery in order to make it profitable to kill them, and strangely enough the thing is not regarded as a wild-goose speculation.

Orange.

MONEY IN WALNUTS.—Anaheim *Journal*: The walnut crop from R. H. Gilman's orchard, in North Anaheim, has been all packed and delivered at the depot, and Mr. Gilman will receive a check to the amount of $4000 for it.

Placer.

THIS YEAR'S ORANGES. — *Republican*: The Auburn Orange Company began to market their fruit on Monday last. The oranges are of fine size and highly colored. This year's crop is estimated at 1000 boxes.

San Diego.

BIG LEMON ORCHARD.—Otay *Press*: It has been decided by the owners of the Chula Vista ranch to plant 1000 acres to lemon trees this season, which will make this the largest lemon orchard in the world.

Shasta.

A HAPPY VALLEY correspondent of the *Free Press* says: S. C. Dick received the highest price for his last shipment of green fruit of any one in the valley, and we think in the county for this year—7½ cents per pound net. Will it not pay to raise fruit?

Yolo.

SALE OF NURSERY TREES.—Woodland *Democrat*: The nursery business is assuming large proportions around Davisville, and our trees find a ready sale all over the coast. Something over a million have been sold for delivery during the present season, and stocks are almost exhausted, while the demand is still active.

Tuolumne.

PREDATORY EAGLES.—*Democrat*: A pair of black eagles that have built their nest and reared their young upon a craggy promontory of the Tuolumne river for many years, are about to be proceeded against as pirates by the ranchers of Jacksonville, they being unwilling to stand the depredation of the feathered pests any longer.

Sacramento.

LARGE BEEVES.—*News*: Odell & Herzog yesterday shipped three mammoth beef steers to the Bay for the San Franciscans Christmas roast. The animals were driven upon the scales before shipping and tipped the beam at 2,700, 2460 and 1900 pounds respectively. The big "beefers" were raised by Joe Platt, the well-known Cosumnes river farmer, and were fed on alfalfa and corn. Mr. Platt received $100 per head for the steers, and says it pays better to raise Christmas beeves than turkeys.

Nevada.

MANY WILD PIGEONS.—Grass Valley *Telegraph*: We see by the papers that there are millions of wild pigeons up in some portions of the northern part of the State, and men, women and children are killing them by the hundreds. We are informed that the wild pigeon crop in this part of the country is larger this year than ever before. An old hunter told us to-day that he saw an immense flock Saturday and he killed several of them. They were fine, fat birds and are splendid eating.

Kern.

EXCITEMENT AT BAKERSFIELD. — *Californian*: There is great excitement in town over the decision of the Supreme Court giving back to the Government a large body of land granted to the railroads. It is well not to be too hasty about making filings on railroad land in the western part of the county, for, from the statement of Southern Pacific Land Agent Madden, no land is affected in Kern or Tulare counties. The total amount affected is about 755,000 acres in Los Angeles and San Bernardino counties; 4912 acres embraced in four cases, and about 750,000 acres in the overlapping grants.

San Joaquin.

AGRICULTURAL ASSOCIATION. — *Mail*: At a meeting of the board of directors of the San Joaquin Valley Agricultural Association, Arthur Ashley, the attorney, was elected secretary, vice J. M. LaRue, the veteran secretary, who has been elected as a member of the Assembly and whose time will be taken up with legislative matters at a period when it will be most needed by the association. The former president and treasurer of the association were reelected. The salary of the secretary was fixed at $500 a year and that of the treasurer at $5 a year, without bonds.

Ventura.

BIG PRUNE RANCH.—*Free Press*: One of the largest individual plantings thus far known is that of J. H. Spear, near Bardsdale, who will set out some 5000 or 6000 prunes and apricots. Within the next few years, it is safe to say, all the land this side of the river, and much of it on the other side, will all be in bearing orchards of one description or another.

HONEY LAND GETTING SCARCE.—*Press*: It is probable that there will not be the amount of honey raised in this county in future as in the years of the past. The reason alleged is that every available acre of tillable land is being cleared, plowed and planted, and this drives the thousands of sheep throughout the valley into the mountains and canyons, and consequently bee-feed is destroyed. Sheep thrive on white sage, and it is from the blossom of this wild herb that California honey has received its superiority and increased value.

Sonoma.

THE FIRST SHIPMENT.—*Republican*: Kopf & Donovan shipped 500 boxes of eggs to Seattle one day this week—the first large consignment to go from Santa Rosa to that place.

CONDENSER CLOSES DOWN.—*Tribune*: The must condenser at Geyserville finished its season's operations last week. This year's run was very heavy and covered a large period of time. There were between 1500 and 2000 tons of grapes consumed by the must-condenser the past season.

PHYLLOXERA RAGING.—*Tribune*: Phylloxera is ravaging the grapevines in the vicinity of Geyserville. It first made its appearance in the vineyard of Leander Ellis, and knowing the disease to be insuppressible, he began at once to dig up the vines. It has since been spreading to neighboring vineyards at an alarming rate, and fears of tremendous damage are entertained.

Butte.

GREAT CROP OF ALMONDS.—Biggs *Argus*: The great crop of almonds on 325 acres of trees of Hatch & Rock this year produced about 66 tons of fruit, which will bring the company over $10,000. Alexander Hammon offered the Rio Bonito Colony Company $175 an acre for 40 acres in orchard on the lower part of the tract. Twenty acres of peaches on Rio Bonito, the trees four years old, brought the owners this year $2700, or $135 an acre.

ONE STORY TREES.—Oroville *Register*: H. L. Hyman, a nurseryman for the past 25 years, has been examining the pruning of fruit-trees in this vicinity, and has in mind the planting of an extensive nursery near this town. He says it is a mistake to allow the young trees to run up high, as is the practice in the East, before they are pruned. There the object is to give warmth to the ground in summer, here to keep the ground as cool and moist as possible about the roots of the tree. Train a tree high here and the ground becomes heated and parched during the hot summers, the sun scalds the bark, the sap sours and the borers injure the tree.

Santa Clara.

DYING OF GLANDERS.—*Mercury*: A. W. Kingsbury, who was taken with the glanders several weeks ago from a diseased horse, is at death's door. The roof of the unfortunate man's mouth has been eaten away, and his sight is gone. His limbs are double their natural size.

VALUABLE LANDS.—First-class prune and apricot land in the Santa Clara valley is worth from $150 to $300 per acre, unimproved, and the bearing orchards are worth $800 to $1500 per acre. This is about equal to the value of citrus land and orchards in the best southern sections of the State.

SANTA CLARA DAIRIES.—"Omar," in the *Mercury*, gives the following as indicating the extent of the Gilroy dairies: J. C. Zuck has 75 cows; A. W. Furlong, 120; A. Forni, 150; G. E. Res, 200; S. Rea, 80; J. P. Sargent, 100; A. Watson, 50; J. H. Ellis, 125; M. F. Holsclaw, 25; Dexter Bros., 40; R. Eschenberg, 70; E. Maze, 48; A. Wilson, 75; J. Murdock, 40; making a total of nearly 1200 cows used for dairy purposes. Add several thousand head of beef-stock at Miller's, Dunne's and other places, and it will be seen that Gilroy is some on horned cattle.

Monterey.

CHINO NOTES.—*Pajaronian*: Down in Santa Ana they are blowing about an immense beet that it is proposed to exhibit at the World's Fair. It is expected to weigh 300 pounds. The Pajaro sugar-beet has not had time to reach that size, owing to beet-factory demands, but it does not take much of a load of Pajaro beets to make 300 pounds of sugar. * * * A talk with some of the citrus-fruit growers of the valley develops the fact that the present windstorm is not doing serious damage to either oranges or lemons, and that very few have been blown off the trees. * * * Strawberries growing, in full bloom and ripening in the open air, at this time of year, is a rare sight to newcomers. In this incomparable section the sight may be enjoyed, not only now, but at almost any time during the winter. * * * The daily beet receipts at the factory are averaging about 500 tons. The major part thereof is from the Moro Cojo and Cooper ranches. It will take about three weeks of clear weather to get out the beet crop on these ranches. The last of the crop of this valley is expected to be in the bins before Saturday.

Los Angeles.

NEW OLIVE-OIL MILL.—The Howland olive-oil mill at Pomona is nearly completed, and the manufacture of oil will commence in a week or two. Some of the machinery was imported from Europe, and the capacity of the mill is greater than that of the similar establishments at Elwood Cooper's ranch and National City.

SEED BARLEY.—Santa Ana *Blade*: The tons of seed barley now being hauled to the San Joaquin ranch will be sown as fast as the ground can be put in condition for it. It is said that the number of men and teams at work there at present present a sight worthy to be looked upon. They are scattered over 25,000 acres of level country, which is as fine barley land as there is in the State.

GOOD LEMON YIELD.—A gentleman of Garvanza has two acres of lemon-trees only, from which he will get about 230 boxes of lemons in all, including 40 boxes recently sold. He sent a specimen into the Chamber of Commerce, and they cannot be surpassed for beauty. Lemons command $5 per box on the trees, and that means $1150 for the two acres. Meanwhile the space between the trees has furnished garden vegetables for the family.

San Bernardino.

OVERLOADED TREES.—*Observer*: Without the assistance of props many of our orange-groves would go to pieces. Nature never intended that an orange-tree should bear such burdens of fruit as our mature orange-trees are now bearing. Though one of the toughest of woods, the branches would split from the trunks of the trees were they not supported as they are. It would be a good idea to relieve, as soon as possible, the overburdened trees of some of their surplus fruit.

WHAT IS THE ORANGE CROP?—*Record*: The *Observer's* estimate of Ontario's orange crop at 130 to 150 carloads is being widely quoted and is calculated to injure rather than benefit the place. The actual shipments will probably not be much more than half those figures, and the discrepancy is sure to cause unfavorable comment. It is safer to keep within bounds in estimates of that kind. The highest figures we have heard mentioned by our fruitgrowers and local shippers are 100 carloads and our estimate is 75 or 80. Last year we shipped 42, and if we can double that, it is good enough. In 1893 we ought to get up toward the 150 notch.

GREAT TOMATO TREE.—*Orange Belt*: A novelty in the tomato line can be seen at Rose Cottage, the home of Henry Thomas. It is a tree that is now 19 feet high, raised from seed planted last April. It is 11 feet in diameter, 12 feet from the ground, and has 70 branches, with very dark green foliage. It seems to be a continuous bearer, and on December 3d the owner gathered 219 tomatoes from the one tree at a single picking. The fruit is of medium size, a rich crimson color, very few seeds, perfectly smooth, breaks open like an apple, though without any core, and is of delicious flavor. It is still growing, and already makes an excellent shade tree for the entire south side of the house.

Tulare.

MORE TO FOLLOW.—*Journal*: The large drier of the Lucerne vineyard, four miles northwest of Hanford, ceased work last Saturday for the season. Eighty carloads, or 800 tons, of raisins have been shipped from this one young vineyard this season, and still there's more to follow.

HOW HE SAVED MONEY. — A *Globe* correspondent of the Tulare Valley *Citizen* says: "A. F. Thompson could only get an offer of $20 for a very large, fat cow, of the butchers. He killed the cow, and after selling $48 worth of beef at a low price to his neighbors, he had 200 pounds for his own use."

MORE THAN ANY OTHER.—*Times*: At the Fruit Growers' Convention held at San Jose, the county of Tulare had more representative fruit-growers in attendance than any other county in the State excepting Santa Clara, the county in which San Jose is situated. This speaks well for Tulare as a fruit-growing county.

DON'T EAT GRAPE SEEDS.—A little son of Mrs. H. A. McCormack of Hanford was taken dangerously ill recently as the result of eating raisin-grape seeds. The little fellow was taken to Oakland, where a surgical operation was performed and the seeds removed. The lad is now recovering, and will soon be well. This should be a warning to parents who permit their children to eat raisin-grapes, skins and seeds.....Charles King of Hanford has shipped 600 tons of raisins this season.

PLANTING.—*Register*: Here in Tulare, having had something of a breathing spell since harvest, now that the rains have come, the big teams are out in the fields again putting in the new crop, and so far as our information goes, the season's planting will be greater than it was last year. But little has been put in dry. That pernicious foxtail has gotten into the fields so that it must be suffered to start before the plowing is done, or it may take the wheat and will certainly damage it.....The *Sentinel* states that there are vineyardists in the upper part of the county who will dig up their grapevines and plant prunes.

WASHINGTON.

SCALE BUGS. — Most of the young trees brought to Washington State from the East are infested with the scale-bug and wooly-aphis. Inspector Jessee condemned several thousand trees from Nebraska at Walla Walla last week.

STOCK FEEDING.—A new industry is developing at Yakima, Wash., that of stock-feeding. During the months of November alone 78 cars of cattle, or about 1700 head, were shipped in there to be held for a month or six weeks for fattening upon alfalfa. They will then be shipped to the Sound markets. This has been a regular proceeding with shippers, for several months, and the number of head arriving is constantly increasing.

LARGE TURNIPS.—The State of Washington reports the largest turnips probably that ever were grown in the West. According to the Wenatchee *Graphic*, A. P. Kiser, who owns a farm on Beaver creek, eight miles east of that city, has on exhibition some turnips weighing 15 pounds up to 21 pounds each. The largest one, weighing 21 pounds, measures four feet in circumference. The farm on which these large turnips, as well as other equally large vegetables, were grown is on a high bench at least 1500 feet above the Columbia river. The land was not irrigated, and produces every season an average of about 25 bushels of wheat per acre. A number of orchards have been planted by the small colony of about 40 farmers, and the fruits, especially apples, do well.

NEVADA.

ALFALFA.—All the alfalfa at Lovelock has been disposed of to the stockmen. There was an immense stock of hay this season, but not more than enough to supply the demand. The price paid was $4.50 per ton in the stack.

THE GOPHER PEST.—*Evening Chronicle*: A decision from Judge Rising of the District Court was received in Dayton last Saturday, which settles the fact that the plague which Lyon county had last May was a gopher plague and not a ground-squirrel plague. Ranchers in the Carson and Mason valleys seeing their crops destroyed by the pests, made big wages by killing the strange animals at a cent and a half per head, the State law providing such bounty for gophers. The first bill presented against the county was for $200. The County Commissioners refused payment, alleging that the animals were squirrels. A long trial was held during the summer, at which a number of zoological experts testified before Justice of the Peace J. S. Craig of Mason valley. The judge decided that the pests were ground squirrels and not gophers, and the plaintiffs had no right to receive a bounty. The case was appealed to the District Court. The court has had the case under advisement for three months, and now gives a learned decision that the animals were gophers. The test case for $200 is but an entering wedge. There are numerous claimants now ready to file their bills, and the result will be that the Lyon county treasury will soon get some heavy drafts from an unexpected quarter.

Chicago's Population.

There is probably no city of importance in the world that can show such rapid and wonderful growth as Chicago since its destruction by fire. To-day its population is about 1,200,000. Mr. Peter Van Schaack, one of the leading merchants of that city said in conversation, that a large number of his personal friends, as well as scores of representative men throughout the Northwest with whom he had conversed upon the subject, had found St. Jacobs Oil a pain-curing and healing remedy of the most extraordinary efficacy. It is the Great Remedy for Rheumatism, Neuralgia, Sciatica, Backache, Bruises, Burns, Swellings etc.

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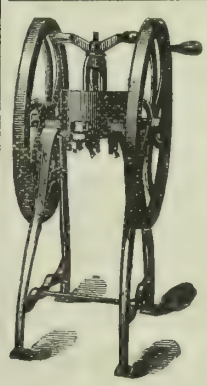

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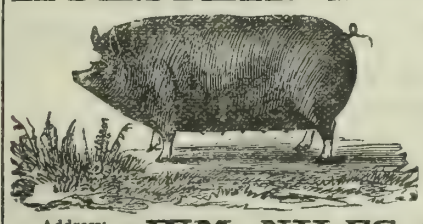

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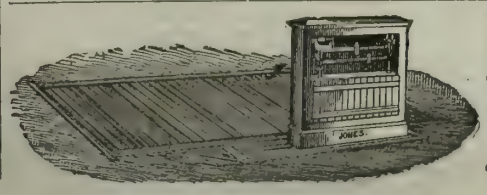

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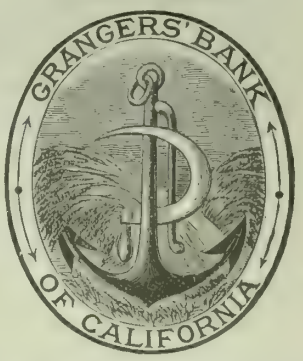

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35 Fine Engravings showing the positions and actions of sick horses Gives the cause, symptoms and best treatment of diseases. Has a table giving the doses, effects and antidotes of all the principal medicines used for the horse, and a few pages on the action and uses of medicines. Rules for telling the age of a horse, with a fine engraving showing the appearance of the teeth at each year. It is printed on fine paper and has nearly 100 pages, 7½x5 inches. Price, only 25 cents, or five for $1, on receipt of which we will send by mail to any address DEWEY PUBLISHING CO., 220 Market Street, San Francisco.

Silk from Wood Pulp.

United States Consul Francis B. Loomis, at St. Etienne, in a report to his Government, gives some interesting facts regarding the proposed manufacture of silk from wood pulp. It appears that the reported failure of the silk crop or output in France, Italy and Syria has again directed the attention of some of the most important manufacturers of St. Etienne to the process invented by Count Chardonner for the manufacture of silk from wood pulp by a method similar in principle to that employed for converting wood into paper. A few years ago the new invention was exploited, and the rights to its exclusive use were sold to companies in Germany, France and England. Large works were built at Besancon, and preparations for manufacturing silk from wood were projected and made on a somewhat extravagant scale. Some remarkable specimens of silk made by this process were shown, but it was found that the fabric so manufactured could not be woven successfully in large pieces, and that it was of so highly inflammable a nature as to be a source of great danger. The experiments were then dropped, and nothing was heard of the matter until a few months ago, when a company was organized to develop the process of Count Chardonner and make it a thoroughly practical one.

This company is quietly at work now, and is making a large number of experiments, which, Mr. Loomis is informed by those in a position to know, are likely to lead to some important and satisfactory results. It is believed that in a short time the company will be able to offer to the trade a substitute for silk which will possess all the essential qualities of silk, and which can be sold for less than half the cost of the genuine article. This company has secured the revision to itself of the exclusive rights to the process, which had been sold, and if its experiments meet with the success that is anticipated, it will be in a position to make its own terms on every side. Consul Loomis has secured interesting samples of ribbons made from wood pulp or cellulose silk, which he sent with his report to the department. Up to the present moment these experiments are more interesting than important, and the silkworm rests secure in its work and its career, but nobody can tell at this early stage of development the wonderful things that the future has in store for wood pulp.

Wages in Europe.

Blacksmiths receive $9.62 per week in England, $4 in Germany, $5.81 in France, $5.38 in Belgium, $3.18 in Austria. Carpenters receive $9.75 in England, $4.11 in Germany, $6.20 in France, $4.07 in Belgium, $5.10 in Austria. Cabinet makers receive $6 22 per week in England, $4.25 in Germany, $6.14 in France, $5.66 in Belgium and $4.40 in Austria. Machinists receive $9 per week in England and $4 60 in Germany—no figures at hand for France, Belgium and Austria. Painters receive $8.92 per week in England and $4.82 in Germany—no figures as to other countries. Laborers, $5.29 per week in England, $3.11 in Germany, $3.93 in France, $3 77 in Belgium and $3 in Austria. Printers are paid 20 cents per 1000 ems in England, and receive $6.64 per week in France, $5 94 in Belgium and $3.95 in Austria; bricklayers, $7.75 per week in England, $4.21 in Germany, $5.74 in France, $4 56 in Belgium and $3.55 in Austria; masons, $8 per week in England, $4 07 in Germany, $5.33 in France, $5.22 in Belgium and $3 73 in Austria; farm laborers, $3 per week in England, $3 06 in Germany, $3.10 in France, $2.72 in Belgium and $3.50 in Austria; coopers, $6 in England, $3 97 in Germany, $5.58 in France, $5.17 in Belgium and $3 64 in Austria; shoemakers, $6 per week in England, $2.95 in Germany and $2.90 in France.—Report of the Bureau of Labor Statistics.

A RAIN GAUGE.—A recent suggestion for the construction of a rain-gauge is that the copper body should be deeply corrugated so that the contained water may be permitted to freeze solid without incurring the risk of fracturing the vessel. It is thought that if the lower part of the rain-gauge were kept immersed in a freezing mixture with the object of solidifying the rain-water as collected, the risks of error due to irregularities in the rate of evaporation would be greatly reduced. For the purpose of measurement the ice would be thawed in a warm room, and the volume of the resulting water would be measured at the temperature of maximum density.

IT is said the wood on the north side of a tree will not warp as much as that on the south side; and that if trees are sawn in planes that run east and west, as the tree stood, they will warp less than if cut in the opposite direction. However this may be, it is certain that the tendency to warp when sawn into boards is much greater in green than in dry wood, and the convex side of the curve is always towards the heart. This warping, due to unequal shrinkage, and to the more open texture of the external portion of the tree, is not found to occur in the middle plank or board of the log, excepting as it may, in slight degree, reduce the breadth.—Canada Lumberman.

Artificial Eyes.

The *Optician* says: The porcelain eye, by its truly wonderful likeness to the human eye in color, size and conformation, is a mark of the advance in opthalmological science. If the removal of eyes in olden time was done in a rude way, as by putting lime between the eyelids, or puncturing the ball with a nail, no less primitive in its way was the artificial reproduction of the eye. The first artificial eye consisted simply of a metal shell painted or enameled over, figuring the sclerotic and iris and leaving the cornea absent. It was not until the seventeenth century that a Dutchman made an artificial eye of enamel, and combining this with glass, succeeded in representing the cornea. However, the eyes were simple oval shells, like the half of a bird's egg, and could be worn in either orbit, there being no right or left. How different now! Not only have we rights and lefts, but the resemblance to the natural eye is so great that it often takes an expert to detect it; and how completely the public in general can be deceived by it is illustrated by an incidental case occurring in the practice of the late Dr. Williams, of Cincinnati. A sharp-witted Irishman who had his eye removed by the doctor did not wish to let his neighbors know that he was wearing an artificial eye, so when he returned home he told them the old one had been taken out, scraped and put back. Not only did he deceive his neighbors, but the county papers took it up and made so much noise that the good doctor became indignant and exposed the patient's story, whereupon the Irishman, when next seeing the doctor, said: "Doctor, you see what a good thing I was making for you, and you went and spoiled it all." And the belief, says Dr. A. E. Davis, of New York, to whom we are indebted for these details, that an eye can be taken out, scraped and put back again, is not confined to the grossly ignorant, as shown by one case reported in this paper; hence it may be well to disabuse their minds upon this point before the operation is done. Artificial eyes should be removed each night, washed and kept in a dry place, and not in a glass of water during the night, as is usually done. Two years is about the limit of time of service of an artificial eye, when it becomes rough and has to be renewed. However, another medical man reports one case where a woman, for fear she would not be able to replace the eye if removed, wore it continuously, without once removing it, for 15 years.

THE HIGHEST CHIMNEY ON THE CONTINENT.—The highest chimney in Germany and probably on the Continent has just been built at Stolberg, near Aix-la-Chapelle. It is 407 feet high, and it stands, moreover, on an eminence which rises some 270 feet above the surrounding plain. The inside diameter of the stalk is, at the bottom, 16 feet 8 inches; at the top, nearly 10 feet. The chimney, provision for the ascent of which has been made by fixing iron stips in the masonry, has occupied six months in erection, and the work was carried out wholly without accident.

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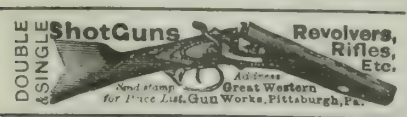

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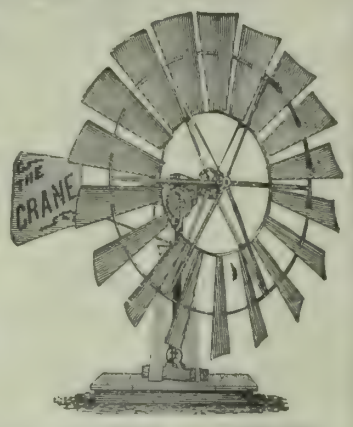

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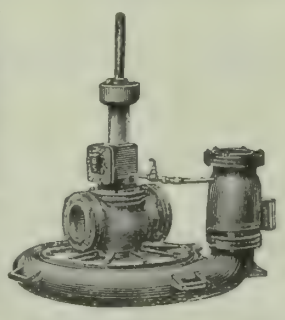

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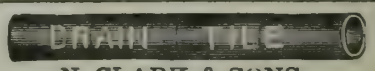

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S. F. Market Report

Market Review.

San Francisco, Dec. 21, 1892.

The end of another week finds the wheat market in a condition more distressed, if possible, even than a week since. There is very little in the situation either at home or abroad to encourage the producer or to give out present hope of prices materially advanced. There seems to be no diminution of the visible supply, but, on the contrary, estimates of stock on hand in the United States are higher than they were a week since. Dealers say they expect forced sales of wheat in January and February in the local market, because banks which have been attempting to help farmers over the depressed season to better times will be apt to call in their loans January 1st, and holders therefore must sell. This is rather a pessimistic view of the situation, it is true, and, even if true, it does not seem likely that it can have material effect on the market, which can hardly be in worse condition.

A new feature of the week in the wheat market has been the loading of four British ships on owners' account. The owners, tired of waiting for charters, believe they would better give their vessels employment, even at a risk, rather than to allow them to run the chance of remaining idle until next season. It is not probable that a similar movement among owners of idle vessels will become general.

Barley is in much the same condition as wheat, so far as sellers are concerned. The market is still very weak. There is strong expectation that overland freights on this staple will be reduced in January, and, if so, a new market will be opened up for the surplus. It is based only on a rumor, however, and has so far had no visible effect on the market.

Live Stock.

In live stock there has been first rate demand during the week and prices are firm. Supplies are good and the market is altogether in good shape.

Vegetables.

New green peas have made their appearance from Los Angeles and are selling at 8c and 10c per pound. Marrowfat squash are scarce and command higher prices. There is very little asparagus in the market. Fresh vegetables of nearly all kinds are in light quantity and when in good condition bring good prices.

Poultry.

There is notable activity in the poultry market, so far as it concerns turkeys. A heavy demand is noted owing to the holiday season, and prices are stiff. An advance was made yesterday to 22 cents per pound for choice dressed, and, unless receipts are very much heavier than is now anticipated, quotations are likely to be higher before the week is out. As a matter of course, the demand will drop off next week, and receipts will go down heavily also, so prices may remain high for a time. Advices from the interior are that there is less supply of turkeys than at this time of year for several seasons. Prices are materially higher than one year since. Chickens are completely overlooked by buyers. Ducks and geese are in fair demand.

The wild small game market is in anything but good condition. Arizona quail have driven the California birds to the wall, and the latter go begging at 75 cents per dozen. Sales were made to-day as low as 50 cents. California hunters complain that they cannot compete with Arizona, inasmuch as they are prevented by law from trapping, by which method the Arizona game is altogether captured. Mallard ducks are lower, and nearly the whole range of prices in other game is below what it was a week since.

Fruit.

There is very little to be said about dried fruits. There has been no material change in quotations during the week past, and there is likely to be no special movement until after the holidays.

Offers for figs are slightly better, the top quotation for black sun-dried now being 6 cents.

Receipts of raisins are light, and the demand is not by any means active. Dealers do not expect that there will be any change in present conditions until after the holidays.

The holiday trade has had no especial effect upon fresh fruit, though quotations in Mexican limes and choice Sicily lemons rule higher; while domestic lemons have taken a drop, being quoted at $3.00 to $3.50 per box. Grapes are almost out of the market. The late severe weather has had a bad effect, and the season will very soon be at an end. Oranges are beginning to come in with some freedom, though there is as yet small demand for them; and there probably will not be until full-ripe ones come in. The quality is certain to improve from now on, and it cannot be long until the demand for sweet oranges can be readily supplied. Meanwhile imported Japanese oranges find easy sale, being preferred at this time by many to the California product.

Apples are firm for choice varieties, though the market is being flooded with inferior product. Producers are anxious to dispose of holdings of the poor grades at any price. The prospects are that the markets will before long be rid of these cheap varieties, and that choice will range still higher in prices.

Nuts.

There is a fair Christmas demand for walnuts, peanuts, almonds and chestnuts, though there is no change in quotations.

Dairy Produce.

There is nothing unusual to be said of dairy products. Some improvement is noted in the demand for cheese, the price for gilt-edged and Young America having advanced one cent. Eggs and butter rule nearly the same, with a steady demand for choice varieties. Cold storage eggs are higher, with excellent demand.

Miscellaneous.

There is marked improvement in smoked meats. Advices from the East are to the effect that the supply is only about one-half what it was a year ago. The result is noticeable improvement in the local situation, with a fine chance that prices will rule still higher.

Buying prices for hops range from 17 for fair to 19 cents for choice. Dealers say they expect no better prices during the coming year; but their opinion need not now be taken as an infallible criterion.

Potatoes have taken a jump, even under rather free receipts from Oregon. About 3800 sacks arrived by steamer Monday. Burbank seedlings now bring from 75 to 85 cents, and Oregon from $1.10 to $1.25. Quotations one week since for the latter were 80c@$1.10. Garnet Chilies are altogether out of the market.

Spring wools are out of the market, and quotations are nominal. There are on hand about 2,000,000 pounds wool to be carried over to the new year, divided as follows: Choice spring, 100,000 pounds; Oregon, 250,000 pounds; low grade, 1,650,000. These it is expected will be closed out in small lots before the spring clip. Just at this time—between spring and fall—there is little of interest that can be said about the past or new clips.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending Dec. 20, '92, were as follows:

Flour, qr. sks	168,316	Chicory, bbls	169
Wheat, ctls	109,510	Hops, bdls	113
Barley, "	13,328	Wool, bdls	248
Rye, "	1,499	Hay, ton	2,137
Oats, "	13,328	Straw, "	116
Corn, "	5,112	Wine, gals	255,150
*Butter, "	484	Brandy, "	47,715
do bxs	260	Raisins, bxs	12,458
do bbls	....	Honey, cs	40
do kegs	42	Peanuts, sks	132
do tubs	...	Walnuts "	....
do ½ bxs	....	Almonds "	118
†Cheese, ctls	551	Mustard "	....
do bxs	65	Flax "	....
Eggs, doz	13,4 0	Popcorn "	....
Beans, sks	31,202	Broom corn, bbls	....
Potatoes, sks	42,426	Leather, rolls	564
Onions, "	3,964	Tallow, ctls	209
Bran, sks	16,616	Hides	2,708
Buckwheat "	42	Pelts	1,025
Middlings "	3,869		

The Tonnage Movement.

During the first 11 months of 1892 the deep-water arrivals at this port comprised 911 vessels (sail and steam), with an aggregate tonnage of 1,149,402 tons. The departures during the same time were 840 vessels, representing 1,080,176 registered tons. The combined movement, inward and outward, shows a total of 1751 vessels, and an aggregate tonnage of 2,229,578 tons, as follows:

Class.	No.	Tons.
Sail	1,189	1,334,093
Steam	562	895,495
Totals	1,751	2,229,578

Every maritime nation is represented in the tonnage movement of the port. Combining the arrivals and departures for the past 11 months (sail and steam), we have the following comparison for American and British vessels:

Nationalities.	No.	Tons.
American	1,066	1,122,476
British	505	870,599
Gain for American	560	251,877

While this is apparently a very favorable showing, it should be stated that many of these American vessels are of small class, making numerous trips between San Francisco and the Pacific islands, etc., while a large number were engaged in the Cape Horn trade, coastwise business and the fisheries.

German, Norwegian, Hawaiian and Nicaraguan vessels have otherwise figured most prominently in the commerce of this port.

Receipts of Domestic Produce.

The following are the receipts of the principal items of California produce at San Francisco from the beginning of the harvest year to date, compared with the corresponding period in the previous harvest year:

	July 1, '91, to Dec. 19, '91.	July 1, '92, to Dec. 17, '92.
Flour, qr. sks	2,697,211	2,833,004
Wheat, ctls	8,363,956	5,847,206
Barley, ctls	1,841,825	1,964,217
Oats, ctls	106,912	200,821
Potatoes, sks	528,039	629,419
Corn, ctls	184,486	137,505
Rye, sks	102,788	57,440
Buckwheat, sks	1,425	3,153
Beans, sks	254,524	378,999
Bran, sks	291,692	292,561
Hay, tons	75,985	71,513
Wool, bales	34,836	37,805
Hides, No.	75,652	81,142
Raisins, bxs	110,345	131,873
Quicksilver' flasks	6,587	10,615
Hops, bales	8,512	6,034

The receipts of certain articles of produce from Oregon, Washington and other distant points, for the same period, compare as follows:

	July 1, '91 to Dec 19, '81.	July 1, '92 to Dec. 17, '92.
Flour, sks	243,360	168,827
Wheat, ctls	853,184	373,993
Barley, ctls	23,643	234
Oats, ctls	266,882	168,810
Wool, bales	5,626	3,301
Bran, sks	32,189	62,718
Hops, bales	336	260
Hides, No.	46,146	41,416
Rye, sks	2,839	53
Potatoes, sks	18,434	23,412

Wheat In the Country.

The "visible" supply of wheat in this country east of the Rocky mountains is placed at 78,321,000 bushels, or 2,750,000 more than estimated a week ago.

The Barley Trade.

The exports of Barley from San Francisco by sea in November last were as follows:

To—	Ctls.	Value.
United Kingdom	78,173	$88,781
New York	41,201	43,533
Hawaiian Islands	15,399	14,061
Tahiti	241	269
Mexico	200	181
Totals	135,214	$146,875
Previously	1,067,655	1,135,644
Since Jan. 1	1,202,869	$1,282,469

The shipments by sea and overland compare as follows:

Eleven months—	By Sea.	By Rail.	Totals.
1892, ctls	1,202,869	4,880	1,207,749
1891	864,637	.....	864,637
1890	316,150	12,952	329,102
1889	817,999	158,201	976 200
1888	913,871	654,722	1,568,593

This year the exports have been unusually large, being only exceeded in 1888. Since 1889 very little has been shipped East by rail.

During the 11 months ending November 30, 1892, the total shipments by sea were as follows:

To—	Centals.	Value.
England	747,419	$812,597
New York	317,498	325,943
Hawaiian Islands	127,832	132,550
Australia	2,508	3,100
Society Islands	2,623	2,803
Mexico	2,292	2,273
Central America	1,722	1,995
British Columbia	855	1,079
Marquesas Islands	116	125
Japan	4	4
Totals	1,202,869	$1,282,469

Being 338,232 centals more than sent by sea during the corresponding period in 1891.

Sugar Bounty.

The descriptions of sugar entitled to bounty in the United States for the fiscal year ending June 30, 1892, were as follows:

	Pounds.	Bounty.
Cane	364,829,411	$7,077,316
Beet	12,004,848	240,098
Sorghum	1,136,086	22,197
Maple	144,882	2,465
Totals	378,115,227	$7,342,076

Louisiana got $6,882,589 of the above bounty, Texas $176,301 and California $163,500. It is estimated that $8,400,000 will be required to pay the bounty on the sugar produced in this country during the current fiscal year.

Markets by Telegraph.

British Grain Trade.

London, Dec. 19.—The *Mark Lane Express* says: English wheats advanced 5d during the week, owing to the comparatively good price offered by London millers. American wheats have fallen 6d, and a further decline was only checked by the firmness of the New York market. Prices ruling indicate that only the higher grades of American flour can now be profitably exported. Large Russian shipments are continued.

The Grain Outlook.

An exchange, speaking of the grain receipts at Chicago, says the year 1892 is going to be the banner year and will beat all previous records. In 1891 the receipts of grain there were 197,484,866 bushels. From January 1st to November 30th, this year, the receipts amounted to 212,016,105 bushels. "If we allow only 10,000,000 bushels for December (and they are likely to be nearer twenty than ten millions) there will be an increase for the year of nearly 25,000,000 bushels. To give an idea of the growth of that traffic we may state that in 1890 grain receipts were 176,954,138 bushels; in 1889, 163,715,801 bushels, and in 1888, 154,986,942 bushels, which shows a very healthy increase."

One cause of the uneasiness in the grain trade, it is stated, is found in the manner in which wheat is being pushed forward to terminal centers and to the seaboard, while the exportations are not in volume proportioned to its accumulation.

A prominent Chicago operator is reported as saying that he is a bear on wheat for the following reasons:

"The foreign demand has been filled up, the stocks everywhere are very large and the receipts in the the northwest are heavy, with indications of their continuing for thirty days. The speculators in the northwest are bearish, as stocks there are larger than a week ago and wheat is still coming in. The crowd in the northwest takes a different view of the situation from the speculators here, the latter being bullish. The elevator people, who are carrying the cash wheat, are hedged, having sold against their cash holdings for May, and do not care much how prices go for the next four months. The situation reminds me of 1886, when I sold wheat for May about this time of the year for 88 cents and bought it back in April at 72 cents."

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	Dec.	Jan.	Feb.	Mar.	April.	May.
Thursday	5s 7½d	5s07½d	5s08½d	5s09½d	5s10½d	5s11½d
Friday	5s07½d	5s07¾d	5s08¾d	5s09¾d	5s11¼d	5s11¼d
Saturday	5s06¾d	5s07¼d	5.08¼d	5s09¼d	5s10 d	5s11 d
Monday	5s06¾d	5s07¼d	5s08¼d	5s09¼d	6s10¼d	5s11¼d
Tuesday	5s06½d	5s07 d	5s08¼d	5s09¼d	5s10 d	5s11¼d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market for P. S
Thursday	30s6d	31s0d	30s6d	Slow
Friday	30s6d	31s0d	30s6d	Quiet
Saturday	30s3d	30s9d	30s3d	Neglected
Monday	30s3d	30s6d	30s3d	Very little demand
Tuesday	30s3d	30s3d	30s0d	Weaker

To-day's cablegram is as follows

Liverpool, Dec. 21.—Wheat, slow. California spot lots, 6s 2½d; off coast, 30s; just shipped, 30s 3d; nearly due, 30s; cargoes off coast, slow; on passage, inactive; French country markets, very quiet.

San Francisco.

WHEAT.

	Buyer Dec	Jan.	May
Thursday, highest	1 26⅝	....	1 31⅝
" lowest	1 20¼	....	1 30
Friday, highest	1 25⅞	....	1 30
" lowest	1 25⅛	....	1 29⅝
Saturday, highest	1 25⅞	....	1 30⅜
" lowest	1 25⅜	....	1 29⅞
Monday, highest	1 26⅝	1 26⅝	1 30⅜
" lowest	1 25⅛	1 26⅝	1 30
Tuesday, highest	1 26¼	....	1 30½
" lowest	1 26	....	1 30¼

The following are to-day's recorded sales on Call:

Wheat - Morning—Informal—May, 100 tons, $1.30½ per ctl. Regular Session—Buyer Decembe, 100 tons, $1.25⅝; 100, $1.25½. May, 100 tons, $1 30; 1200, $1.30½ per ctl. Afternoon—May, 500 tons, $1.30⅜. Buyer December, 100 tons, $1.25⅝ per ctl.

BARLEY.

	Dec.	Jan.	May
Thursday, highest	*81	84½	85⅝
" lowest	81	83½	83⅝
Friday, highest	80	79	83⅜
" lowest	80	78½	82½
Saturday, highest	....	....	82⅝
" lowest	....	....	82½
Monday, highest	78¾	79½	*83⅝
" lowest	78	78⅛	*82¼
Tuesday, highest	*77⅞	....	83
" lowest	*77½	....	82½

*Buyer option.

The following are to-day's recorded sales on Call:

Barley—Regular Session—May, 200 tons, 82⅜c; 200, 82½c; 100, 82¼c per ctl. Afternoon—May, 600 tons, 82c; 100, 81⅞c; 200, 81¼c; 100, 81⅞c; 100, 81¼c per ctl.

Eastern Markets.

The following shows the closing prices per cental of wheat for the past week at

New York.

Day.	Dec.	Jan.	March.	May.
Thursday	126½	128	132	135⅛
Friday	124½	125	130	133⅛
Saturday	124½	125	....	132⅝
Monday	124¼	125½	127½	136⅛
Tuesday	124⅛	124⅝	129⅛	132⅝

The following is to-day's telegram—per bushel:

New York, Dec. 21.—Wheat, 47½c for January, 77c for March, 79½c for May, 79½c for June and 80c for July.

Chicago.

Day.	Dec.	Jan.	May.	July
Thursday	118⅜	120	129	127
Friday	117	....	127½	125½
Saturday	117	118	127½	125
Monday	115½	116⅞	127½	....
Tuesday	116⅛	117½	127½	124½

The following is to-day's telegram—per bushel:

Chicago, Dec. 21.—Wheat, 76⅝c for May.

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

December 14, 1892.

Limes, Mex	3 00 @ 4 50	purposes sells at an advance on outside quotations	
Do Cal	— @ —	Beets, sk	— @ 75
Lemons, box	3 00 @ 3 50	Carrots, sk	30 @ 50
Do Sicily choice	5 50 @ 6 00	Okra, dry, lb	8 @ 10
Apples	40 @ 65	Parsnips, ctl	1 00 @ 1 50
Do Choice	75 @ 1 25	Peppers, dry, lb	7 @ 8
Do Extra choice	1 50 @ 1 75	Turnips, ctl	— @ 70
Grapes, pr bx	15 @ 85	Cabbage, 100 lbs	75 @ 80
Pears	25 @ 75	Garlic, ℔ lb	1½@ 2½
do Winter Nelis	1 00 @ 1 75	Mar'fat Squash, ℔ ton	5 00 @10 00
Persimmons	50 @ 1 00	Cauliflower	75 @ 1 00
Oranges, pr bx—		Celery	50 @ 75
Navels, River'de	3 50 @ 4 50	Mushrooms, ℔ lb	
Do, Butte Co	— @ —	Do, Common	8 @ 15
Seedl'g, River'de	2 00 @ 2 75	Do, Button	20 @ 25
Do, Fresno	2 75 @ 3 00		
Do, Butte Co	2 50 @ 2 75		
Extra choice fruit for special			

General Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

DECEMBER 21, 1892.

BEANS AND PEAS.		Do country m'ls	3 90 @ —
Bayo, ctl	2 20 @ 2 30	Superfine	2 50 @ 3 00
Butter	2 40 @ 3 00	NUTS—JOBBING.	
Pea	2 45 @ 2 60	Walnuts, hard shell, Cal. lb	6 @ 8
Red	2 40 @ 2 50	Do soft shell	8 @ 9½
Pink	2 00 @ 2 05	Do paper-shell	10 @ 12
Small White	2 45 @ 2 55	Almonds, sft sh'l	12 @ 13½
Large White	2 25 @ 2 35	Paper shell	13 @ 15
Lima	2 75 @ 3 00	Hard shell	6 @ —
Fld Peas, blk eye	1 60 @ —	Brazil	10 @ —
Do green	1 75 @ 2 00	Pecans, small	8 @ 10
Do Niles	1 60 @ 1 75	Do large	14 @ 16
Split	4 50 @ 5 50	Peanuts	3½@ 4
BUTTER.		Filberts	10 @ 12
Cal., poor to fair, lb	15 @ —	Hickory	7 @ 8
Do g'd to choice	22½@ —	Chestnuts	13 @ 14
Do Giltedged	— @ 32½	ONIONS.	
Do Creamery	27½@ —	Silverskin	75 @ 90
Do do Giltedge	— @ 35	POTATOES.	
Eastern, ladie	12½@ —	River Reds	45 @ 55
Cal. Pickled	20 @ —	Early Rose, ctl	55 @ 65
Cal. Keg	20 @ —	Peerless	60 @ 70
East'rn Cream'y	25 @ 27½	Burbank Seed's	75 @ 85
CHEESE.		Do do Salinas	90 @ 1 30
Cal. choice cream	9½@ —	Do do Oregon	1 10 @ 1 25
Do fair to good	8 @ —	Sweet	50 @ 75
Do Giltedged	— @ 12½	Extra choice sell for more money.	
Do Skim	5 @ 6½	POULTRY.	
Young America	— @ 12½	Hens, doz	5 00 @ 6 00
EGGS.		Roosters, old	5 00 @ 6 00
Cal. "as is," doz	20 @ —	Do young	5 00 @ 5 50
Do shaky	15 @ —	Broilers, small	2 00 @ 3 00
Do candled	30 @ —	Do large	3 00 @ 4 00
Do choice	32½@ —	Fryers	3 50 @ 4 00
Do fresh laid	— @ 35	Ducks	4 50 @ 5 00
Do do s'led wht'e	— @ 37½	Do large	5 50 @ 6 50
Eastern cold-storage	23 @ —	Do extra large	6 50 @ 8 00
Do fresh	25 @ —	Geese, pair	1 50 @ 2 25
Do selected	— @ 32½	Turkeys, gobl'r	18 @ 19
Outside prices for selected large eggs and inside prices for mixed sizes—small eggs are hard to sell.		Turkeys, hens	18 @ 19
FEED.		Do dressed	20 @ 22
Bran, ton	13 00@ 14 00	All kinds of poultry, if poor or small, sell at less than quoted; if large and in good condition, they sell for more than quoted.	
Feedmeal	25 00@ 26 00		
Gr'd Barley	19 00@ 19 50		
Middlings	— @ 21 00		
Oil Cake Meal	— @ 35 00		
Manhattan Horse Food (Red Ball Brand) in 100-lb. Cabinets	— @ 8 00	Manhattan Egg Food (Red Ball Brand) in 100-lb. Cabinets	— @11 50
HAY.		GAME	
Compressed	7 00 @10 00	Quail, per doz	50 @ 75
Wheat, per ton	9 00@ —	Ducks	— @ —
Do choice	— @ 13 50	Do Mal'd ⅌ doz	3 00 @ 3 50
Wheat and oats	8 00@ 11 50	Do Sprig	2 00 @ 2 25
Wild Oats	7 00@ 9 00	Do Teal	1 50 @ —
Cultivated do	6 00@ 9 00	Do Widgeon	1 50 @ —
Barley	6 00@ 9 00	Do small	1 25 @ —
Alfalfa	8 00@ 10 50	Geese	3 00 @ —
Clover	8 00@ 10 00	Do gray ⅌ doz	2 00 @ 3 00
Straw, bale	35@ 50	Do White	1 00 @ 1 50
GRAIN, ETC.		Do Brant	1 25 @ 1 75
Barley, feed, ctl	77½@ 77½	Snipe	2 00 @ —
Do good	78⅜@ — —	Do English, doz	1 50 @ 2 00
Do choice	80 @ — —	Do Jack, per doz	75 @ 1 25
Do brewing	91 @ 98	Hare, per doz	1 25 @ —
Do do choice	93¾@ — —	Rabbits, large	1 25 @ 1 50
Do do Giltedge	97½@ — —	Do small	1 00 @ 1 25
Do Chevalier	80 @ — —	PROVISIONS.	
Do do Giltedge	1 15 @ — —	Cal. bacon, heavy, per lb	12 @ —
Buckwheat	2 25 @ — —	Medium	13 @ —
Corn, white	1 07½@ 1 10	Light	14 @ —
Yellow, large	1 00 @ — —	Lard	9½@ 12½
Do small	1 07½@ 1 10	Cal sm'k'd beef	11½@ —
Oats, milling	1 35 @ 1 37½	Hams, Cal salt'd	14½@ —
Feed, choice	1 37½@ — —	Do Eastern	14 @ —
Do good	1 30 @ — —	SEEDS.	
Do fair	1 25 @ — —	Alfalfa	9½@ 10
Do common	1 12½@ — —	Clover, Red	15 @ —
Surprise	1 40 @ — —	White	30 @ —
Black feed	1 05 @ 1 15	Flaxseed	2 25 @ —
Do seed	1 17½@ 1 30	Hemp	4½@ —
Gray	1 30 @ — —	Mustard, yellow	7 @ —
Rye	1 12½@ 1 17½	Do brown	4½@ —
*Wheat, milling Gi tedged	1 27½@ 1 32½	WOOL.	
Do choice	1 26¾@ — —	FALL, 1892.	
Do fair to good	1 25½@ — —	S Joaquin, plain	6½@ 10
Shipping, choice	1 26¼@ — —	Do mountain	8 @ 11
Do good	1 25 @ — —	Do lamb	8 @ 10
Do fair	1 22½@ — —	Northern Choice	14 @ —
Common	1 20 @ — —	Do Defective	11 @ —
Sonora	1 20 @ 1 30	Do Lamb	10 @ 14
HOPS.		HONEY—1892 CROP.	
1892, fair	17 @ —	White comb, 2-lb frame	9½@ 12½
Good	18 @ —	Do do 1-lb frame	11½@ 14½
Choice	19 @ —	White extracted	7½@ —
FLOUR.		Amber do	6¾@ —
Extra, city mills	3 90 @ —	Dark do	6½@ --
		Beeswax, lb	23 @ 25

Dried Fruits.

The quotations given below are for average prices received by commission merchants for consignments by growers. Something very fancy fetches an advance on the highest quotations, while poor sells slightly below the lowest quotations. Prices, unless otherwise specified are for fruit in sacks; add for 50-lb. boxes ¼c per lb. and for 25-lb. boxes ½ to 1c per lb.

APPLES - 1892.	Do do fancy — @16
Sun-dried, ¼'s 4½@—	Evap., peeled, in boxes choice 18½@—
Do sliced 4½@ 5	Do do fancy 20 @21
Evap. bl., ring, 50-lb. bx 8 @ 9	PLUMS—1892.
Fancy, higher.	Pitted, sun-dried 10 @10½
APRICOTS—1892.	Do evap. boxes, choice 11 @12
Do bleached 13½@—	Unpitted 4 @ 5
Do do fancy 15 @16	PRUNES—1892.
Evap. choice, in boxes 15 @16	Cal. French, ungraded 7½@ 8
Do fancy, do 15½@17	Do graded, 60 to 100 9½@10
FIGS—1892.	Do do 40 to 60 11 @12
Sun-dried, black 4 @—6	Fancy sell for more money.
Do white 3½@—	RAISINS—1892.
GRAPES—1892.	London Layers, cluster per box 1 90 @2 00
Sun-dried, stemless 2½@ 3	Do choicest do 1 50 @1 60
Do unstemmed 1½@ 2	Do prime pr bx 1 25 @1 40
NECTARINES—1892.	Loose Muscatels, 2-crown, pr bx 75 @1 00
Red, sun-dried 7 @ 8	Do 3-crown do 1 10 @1 20
Do Evap., in boxes 11½@12	Do do do faced 1 20 @1 25
White, sun-dried 9½@11	Unstem'ed Muscatels in sks. pr lb. 2½@ 3
Do evaporated 12½@13	Stem'ed 2-crown 2¾@ 3
PEARS—1892.	Stem'ed 3-crown 3½@ 4½
Sun-dried, quarters 2½@ 3	Se'dl's M'sc't'l sks 4 @ 5
Do sliced 4 @ 5½	Do do in bxs — @1 00
Evap., slic'd, in b'xes 7 @ 8	Do Sultanas, sks 6 @ 7
Unp'led, q'rt'd, bl'ch'd 5 @ 8	Do do bxs — @1 40
PEACHES—1892.	Halves, quarters and eighths 25, 50 and 75 cents higher respectively than whole boxes.
Sun-dried, unpeeled 7 @ 7½	
Do do prime, bl'ched 9 @10	
Do do choice, do 11 @11½	
Sun-dr., pl'd, bl'ched 10 @11	
Do do prime 14 @—	
Do do choice — @15	

Live Stock.

BEEF.		MUTTON.	
Stall fed	6½@—	Wethers	6½@—
Grass fed, extra	6½@—	Ewes	6 @—
First quality	5½@—	Do Spring	7½@ 8
Second quality	4½@—	HOGS.	
Third quality	4 @—	Light, ⅌ lb, cents	5½@—
Bulls and thin Cows	2 @—	Medium	5½@—
VEAL.		Heavy	5½@—
Range, heavy	5 @6	Soft	5 @—
Do light	6 @8	Feeders	5 @—
Dairy	7½@8½	Stock Hogs	5½@—
		Dressed	8 @ 8½

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The Secretary's Column.

(*Continued from page* 538.)

their joining with the Grange in reviving the Farmers' Institute, reported that little or no encouragement had been met with. The former institute meetings, which were started by Tulare Grange and afterward championed by the Grange and Alliance, and the cause of utter failure, after having held two or more successful meetings, was well discussed by Bros. Tuohy, Forrer (of the U. S. Experimental Station), Mackie, Moore, Maples, Chapin, Sister Ingraham and others. Suggestions being called for, we stated our belief that the interest shown by those present was sufficient evidence that a good Farmers' Institute could be held semiannually at least, and entirely under the auspices of the Grange. The committee of five was continued and an appropriation of $20 was voted to provide for the expenses of holding the first meeting. This, no doubt, will secure the permanent establishment of a well and successfully conducted Farmers' Institute in Tulare county.

Under "Good of the Order," was urged the importance of Patrons conferring with agricultural and other members of the legislature favorable to legislation for farming interests and all true reform. It is anticipated that at least two legislative members from Tulare county will be found on the right side. Among absent veteran Patrons, we missed pleasant "Maples" and others of "Merritt" by name as well as by nature, whom we are always glad to greet. Although the attendance was small, the well-known live spirit of Tulare Grange was manifest.

In Tulare Grange, last Saturday, a letter of regret was read from Sister E. Z. Roache speaking encouraging words for the future of the work, and appreciatively of Tulare Grange and its W. M.

EXECUTIVE MEETING.

No date has yet been fixed for the Executive Committee meeting; it will be held soon, however. Selecting the location for the next S. G. will be considered; also subjects recommended by the S. G. for legislation at the coming session of the legislature. The Committee desire that Patrons throughout the State shall confer urgently with the members of the legislature from their district in regard to legislation needed in local and farming interests and reforms for the good of the commonwealth.

Among the names stated to be in favor of good legislation and worthy of conference for the purpose of forwarding the work of good legislation are P. R. Adams of Santa Cruz county; C. S. Cargill of Watsonville Grange; C. F. Bennett, Assemblyman from Tustin, Orange county; C. A. Barlow of San Luis Obispo county; W. Vann, Assemblyman from Colusa county; Senator B. F. Langford and Assemblyman Hutson, San Joaquin county; Senator D. A. Ostrom, Wheatland; Eben R. Owen, Assemblyman, of Elk Grove. These are only a few, we apprehend, of many that can be depended upon for square legislative action.

JOINT INSTALLATION.—Temescal Grange has invited Eden Grange to join in the installation of officers at Oakland, Jan. 7th, at 10 o'clock. Bros. Goodenough and Perkins have been selected for installing officers. The usual harvest feast, some good talk and lots of Grange sociability will be enjoyed by members and also by visiting Patrons, it is hoped.

SANTA ROSA GRANGE.—State Master Davis and his wife, who were present, report a large attendance and a good meeting upon Grange election day at Santa Rosa. Chas. Gamble was elected W. M.; George Rogers, W. O., and S. T. Coulter, W. L.

STATE GRANGE PROCEEDINGS.—Copies of the proceedings of 1892 have been forwarded to the subordinate masters, secretaries, State officers of California and masters and secretaries of other State Granges. Should any have failed to receive copies, please notify this office. Granges or members who wish further copies will be supplied upon sending two cents for postage. The volume comprises 128 pages and contains a good deal of interesting and important matter, including its literary and memorial departments, masters' reports of subordinate Granges, and other departments. We would recommend by masters its careful examination relative to resolutions and recommendations adopted by the S. G. These, with other appropriate selections, might well be read from time to time at Grange sessions.

SISTER C. E. KINNEY is spending some weeks with Flora M. Kimball, P. M. of National City Grange.

WATERLOO GRANGE.—Resolutions of respect to the memory of Martha Hancock were adopted recently by Waterloo Grange. She died Nov. 24th, in her 52d year. Committee—D. W. Keiver, S. Light, Lizzie Anderson.

WORTHY OVERSEER ROACHE and wife are planning for some revival work in Watsonville and vicinity. So are many Patrons, we believe, in other quarters.

THE sixth degree certificates have not been received as soon as anticipated. We hope to report their arrival soon.

INCREASED ACTIVITY. — Reports from quite a number of subordinate Granges have been received during the last week. Many elections of officers have been held and installation meetings appointed for next month. Let us have an onward movement along the whole line throughout the coming year.

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Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription, paid in advance, 5 mos., $1 10 mos., $2; 15 mos., $3. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

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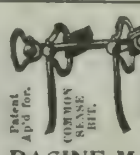

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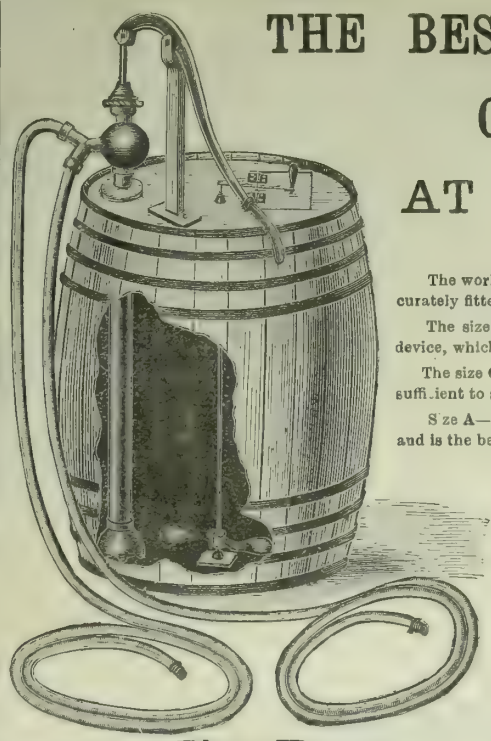
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Bamboo Extensions,
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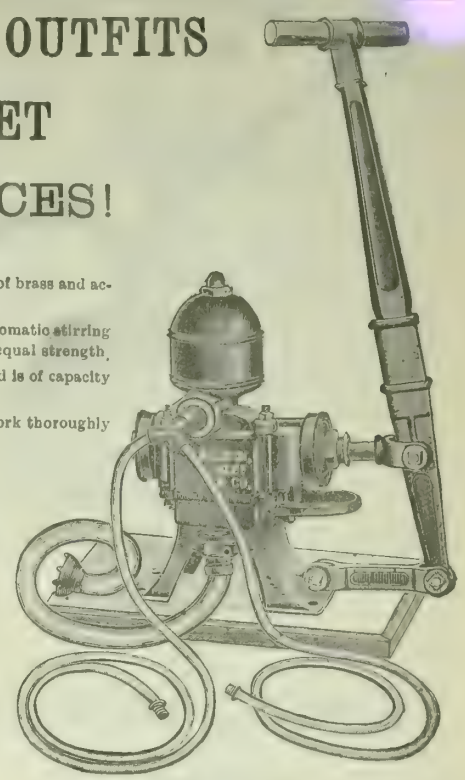
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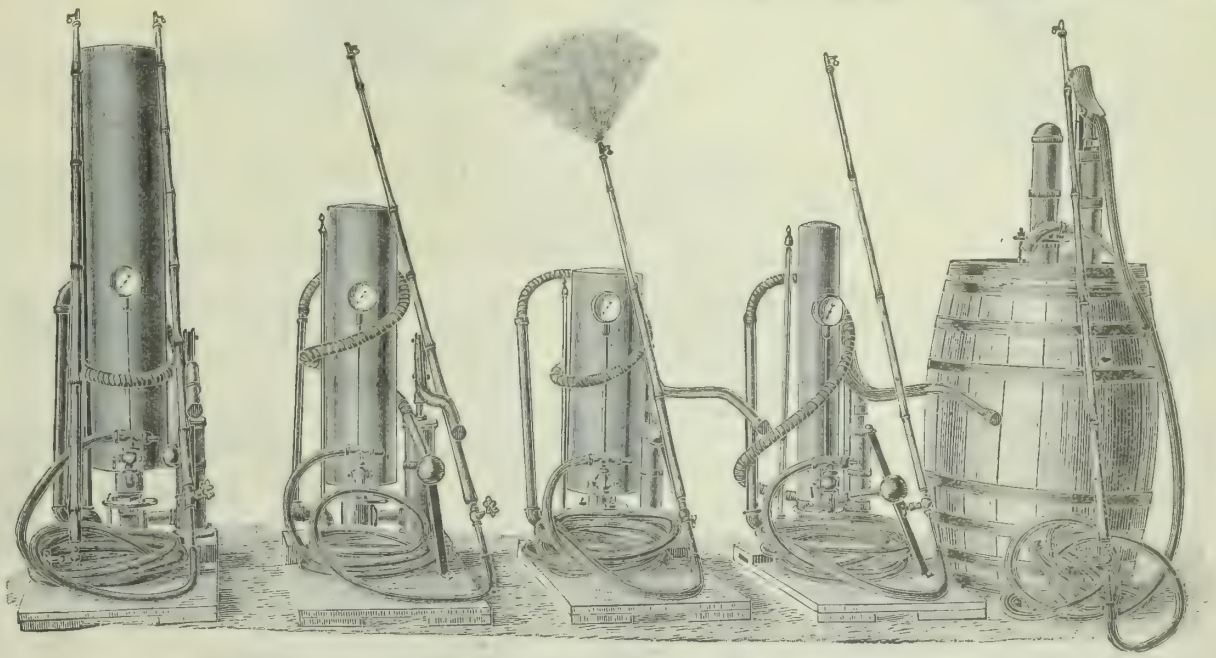

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SEND FOR CIRCULARS TO
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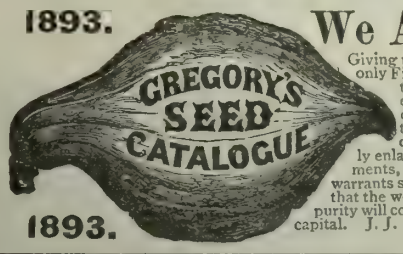

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HOE YOUR OWN ROW
With the "Planet Jr." Double Wheel Hoe, Cultivator, Rake and Plow. It will do as much work as three men, and do it better. It will cultivate, hoe, rake, or plow both sides of a row at once at the speed of a moderate walk, or a fast walk, as you choose. These are the main features; the rest are told in the "Planet Jr." Book for 1893. It also explains and illustrates 20 other farm implements of the "Planet Jr." Family. Every farmer should read it. We send it *FREE*.
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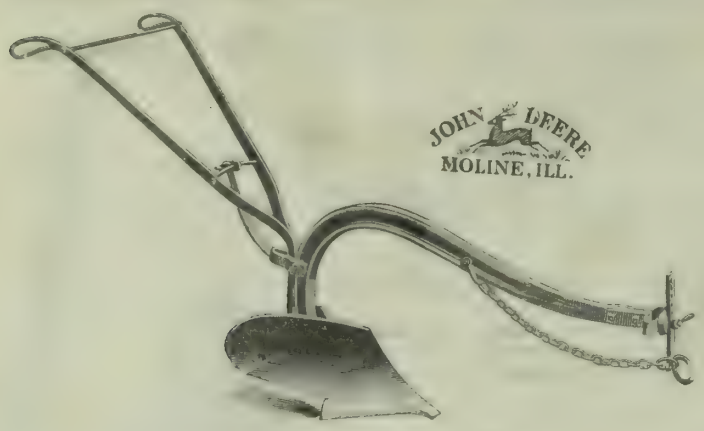

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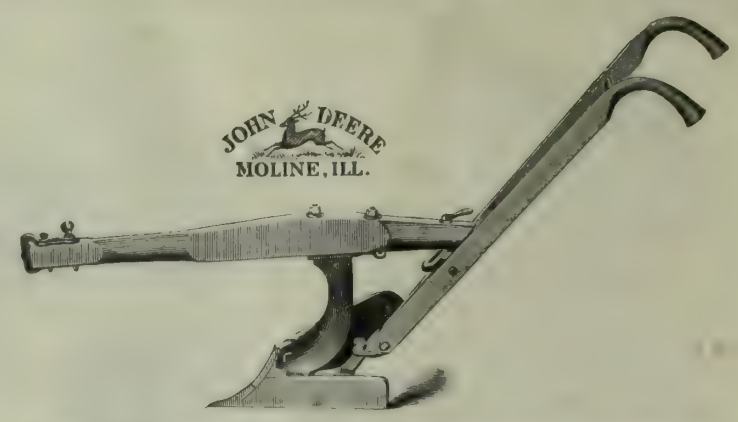
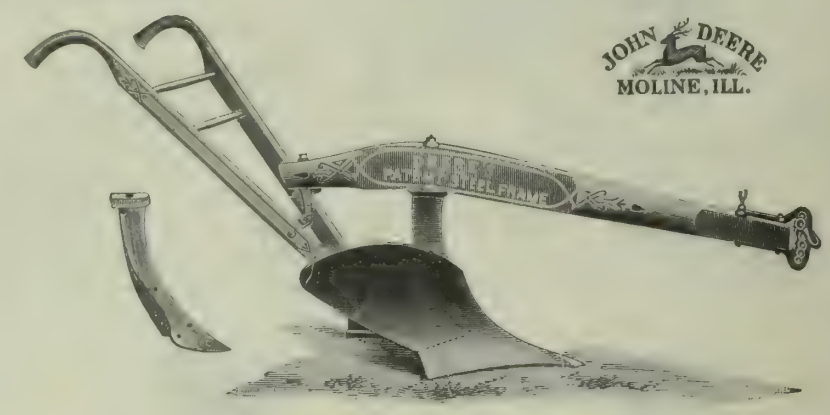
CHILLED OR STEEL BOTTOMS.
FOR VINEYARDS OR ORCHARDS.



Wood Beam Vineyard and Orchard Plow.
CHILLED BOTTOMS.

JOHN DEERE PLOWS ARE GOOD.



Deere's Patent Steel Frame Plow.
ADJUSTABLE BEAM, STEEL FRAME, STEEL MOULD, STEEL OR CHILLED SHARE.
THE LATEST AND BEST.

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DEERE IMPLEMENT CO., 305 & 307 Market St., San Francisco.

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CHAMPION SPRAY PUMP.

The above cut illustrates our new spraying pump, the "Champion," and its adaptability to the work for which it has been especially designed.

After ten years experience in the spraying pump business, and the wants of orchardists therein, we have built this pump, as being best suited to their requirements. Before putting it on the market we submitted the model to several prominent fruit growers, and as the design met with their unqualified approval also, we have no hesitation in declaring it to be the best spray pump ever made, and justly entitled to be named "Champion."

As will be seen from the illustration, the pump is very compact and strong. It is perfectly double-acting and has a brass-lined cylinder. The motion of the piston is horizontal. The handle is so arranged that the leverage is very powerful, and the movement is easy and natural. The air chamber is unusually large, admitting of the continuous and even discharge necessary for good and thorough spraying.

The valves are metal and have metal seats. They all lie directly beneath the air chamber and are readily exposed on loosening four bolts, and without touching the cylinder.

The pump has a double suction and a double discharge, one each on either side. The above cut shows the pump in operation with four lines of discharge hose. It can be readily arranged for a less number if desired. With this pump one man can easily keep four men busy spraying, as well as attend to the team and stirring of the liquid We believe the pumps supply a long felt want, as, for service, convenience, easiness of operation and durability, they are far superior to any other in use.

Our BAMBOO EXTENSION is an admirable invention. The operator of the pump, by the use of this extension, can get to all parts of the tree while on the ground, also saving himself from getting his hands and face burnt from the solution. As a rule, the man who does the driving of the team does the pumping, and the party who has charge of the Bamboo Extension does the spraying. This is the very best pump made, without any exception.

NOTICE.

We also carry a full line of other Spray Pumps—GOULDS, STAR, EUREKA; also full line of Spray Nozzles, Spray Hose and everything connected with the Spray Pump Outfits.
SEND FOR SPECIAL CATALOGUE—Mailed Free.

WOODIN & LITTLE,

312 and 314 Market Street, Junction of Bush, San Francisco, Cal.

GIRLS

JACKETS!

Real nice one, too—latest style out. PRETTY CAPS TO MATCH

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Colors are gray mixed and light tan mixed, the new popular fabrics—not dark. We have only 78 left, and they will not go round.

AGE 4 ARE $2.50—POSTAGE 18c.
AGE 6 ARE 2.75—POSTAGE 20c.
AGE 8 ARE 3.00—POSTAGE 22c.
AGE 10 ARE 3.25—POSTAGE 24c.
AGE 12 ARE 3.50—POSTAGE 25c.

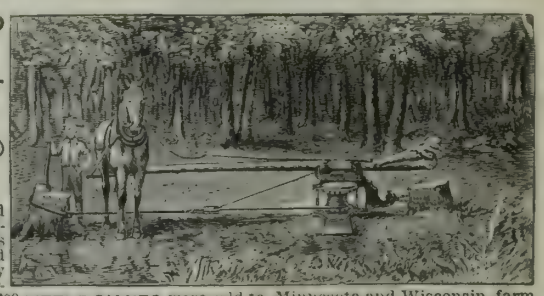
Caps to Match Go with the Coats.

You will be asked $5.00 for these elsewhere. We have LADIES' COATS $3.75 to $12.00. Long Coats, last year's style, 30 left, were $12.00 to $20.00, now $5.00 to $8.00. Our list tells about 'em. Send for it—FREE—to

SMITH'S CASH STORE,

414-416-418 Front Street, San Francisco, Cal.

BUY THE IMPROVED
LITTLE***
**GIANT
Grubber



It is the Cheapest, Best and Most Powerful Grubbing Machine in the world, and has established and maintained its reputation for superiority against all competitors. During the last six months over 600 LITTLE GIANTS were sold to Minnesota and Wisconsin farmers alone. Where the LITTLE GIANT is known the farmer will buy no other. One man and a chunk of a boy can do the work of ten men. For illustrated Catalogue, prices, terms, references, etc., address

Mohland & Co., Sigourney, Iowa.

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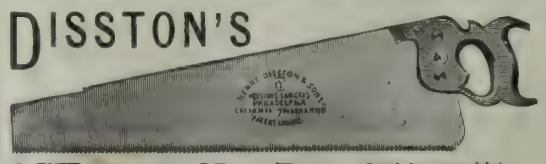

It will pay you to buy a saw with "DISSTON" on it. It will hold the set longer, and do more work without filing than other saws, thereby saving in labor and cost of files. They are made of the best quality crucible cast steel and are FULLY WARRANTED.

For Sale by all dealers.

ASK FOR No. 7. Send for pamphlet, "THE SAW" Mailed free.

HENRY DISSTON & SONS, Inc.
PHILADELPHIA, PA.

PACIFIC RURAL PRESS

Vol. XLIV. No. 27. SAN FRANCISCO, SATURDAY, DECEMBER 31, 1892. THE DEWEY PUBLISHING CO. Office, 220 Market St.

Fine St. Bernard Dogs.

The accompanying very handsome group of St. Bernard dog and puppies belongs to the kennel of Capt. Poole, of San Francisco. The sire, Gillot P., won second prize at the recent bench show in San Francisco, and he is considered one of the finest dogs on the Pacific Coast. The mother, Victoria, also won second in her class at the same show. The four puppies bear unmistakable marks of fine blood, and evidently possess splendid bone and substance.

An air of romance and adventure surrounds the St. Bernard. He is known as one of the best and noblest four-footed friends man has been blessed with. The name St. Bernard arises from the locality in the Alps mountains where these dogs have been the humble agents of many heroic deeds. St. Bernard is a famous mountain pass in the Pennine Alps, attaining an elevation of more than 8,000 feet above the sea-level. On the summit stands a monastery of St. Augustine monks, who with these dogs have rescued many hundred travelers from death by exposure to cold, or burial in the snow.

The monastery, or *hospice*, is a great resort of travelers across the mountains. As many as 500 or 600 persons are said to have taken advantage of the hospitality of the monks in one day, and it is calculated that 8,000 or 9,000 are annually indebted to their kindness.

The pass, which was traversed in early times by the Romans, by Charlemagne, and Frederick Barbarossa, is celebrated for the passage of 20,000 French troops under Napoleon in 1800.

School-book pictures of the St. Augustine monks and the St. Bernard dogs in the act of rescuing some unfortunate creature from the snow are familiar to all.

A GROUP OF ST. BERNARDS.

CALIFORNIA prunes have driven the foreign product out of our local market, and are making great headway throughout the United States. There are substantial reasons to believe that the market will be doubled in five years. It is not yet time to tremble through fear of overproduction.

NEW YORK has received thus far for the season 539,000 boxes of California raisins. The total includes bags reduced to boxes. About two-thirds of this quantity went to New England. The market is ruling weak and cheap. The best bags will not exceed 3 cents a pound, while plenty of damp but useful stock runs down to 3 cents. Boxes of loose raisins are worth from $1.20 to $1.35 and clusters or layers from $1.80 to $2.00 for the finest brands.

THE English syndicate which was attempting to develop the northern half of California, it is reported, has abandoned its enterprise, and will surrender its concession by the Mexican government of 18,000,000 acres of land. Grass is growing over the projected and partly built railroad from San Quentin to Yuma. This is what is known as the Ensenada scheme.

IN the past eight years $6,000,000 has been spent in irrigation enterprises in Arizona, and the result is the rescue of many hundred thousands acres of fertile land from an arid waste. It was possibly of Arizona that the poet aid "the desert shall blossom as the rose."

A GIGANTIC scheme to irrigate desert portions of San Diego and San Bernardino counties by water from the Colorado river is on foot, under direction of a Belgian company with $10,000,000 capital. A part of the plan is to colonize the irrigated land with Belgian and other farmers. One of the proposed items of development is an orange orchard of 4000 acres. Parts of Arizona and Mexico are also to be irrigated if there is sufficient surplus of water in the Colorado available.

THE various counties in the northern part of the State manifest a degree of interest in the coming citrus fair in San Francisco that insures the complete success of that project. The exhibits will be large and elaborate. Butte county being the leading one in the production of oranges, will have 4800 square feet; Placer, 3000 square feet; Yuba 1600 square feet; Sacramento, 1200 square feet; Tulare, 600 square feet. Several smaller displays will be made by other counties, which will take up from 200 to 500 square feet each.

A 1700-POUND heifer has just been sold in Humboldt county, and people up there say that is a pretty big heifer. It is, but there are some calves in California which think they weigh a ton. They are two-legged, and are principally engaged in declaring that agriculture, horticulture, and every other productive pursuit is going to the demnition bow-wows.

THE San Francisco *Examiner* unkindly calls the proposed cooperative association of growers, packers and brokers a "big raisin trust." There are trusts and trusts, and some trusts are not like other trusts. For instance, this raisin "trust" has no design of squeezing the consumer or jobber. Its object is simply to prevent being squeezed.

RIVERSIDE orangegrowers, packers and shippers have organized to "maintain the price" of this season's orange yield. It is not always easy to hold up prices of any commodity. But organization can sometimes have an important influence on supply and demand.

THE total hay export this year from Hollister and vicinity was 27,375 tons.

THEY have started a curious social game in Southern California. It is called the "peanut hunt," and is used for entertainment where cards and dancing are not desired. The hostess hides peanuts in all sorts of queer places about the room, sometimes putting two or three nuts in the same place. Then she provides each of her guests with a little basket, tied with gay ribbons, and the "hunt" begins. After a certain time the "finds" are compared. The one who has the largest number wins the first prize—the "booby prize" being awarded to the one having fewest.

GRAPEGROWERS and winemakers are being urged to hold back their product from the market until better prices are forthcoming for wines and brandies. It is represented that this year's production of wine in California will not be over 12,000,000 gallons, against from 17,000,000 to 18,000,000 in former years, and the consequence will unavoidably be an advance in values.

A LOCAL paper estimates that there yet remain unsold in the Salinas valley 13,627 bushels of wheat and 26,538 of barley. If the owners can only hold it in the warehouse long enough, their patience will no doubt be rewarded by better prices—a somewhat superfluous prediction, it is true. When things are at their worst, they must improve.

A LULL in tree-planting is noted in the southern part of the State. The disposition is to wait results upon orchards already put out. The cessation pertains more particularly to prunes than to any other fruit. Oranges, lemons, peaches and apricots seem to be well represented in the young orchards.

PETALUMA is to have a starch factory, and the potato raisers in that vicinity are congratulating themselves that they will have no trouble in disposing of their product. Producers of that particular vegetable, however, have little reason to complain of prices this year, starch factory or no starch factory.

THE Sonoma county hop crop for 1892 was 8500 bales. Of this output 3000 bales were contracted before harvest at 15 to 17 cents. Fifteen hundred bales were sold at spot cash from 18 to 20 cents, and there yet remain unsold 2500 bales. The yield was expected to be 10,500 bales, instead of 8500.

URBAN growers of oranges in Northern California are suffering from nocturnal visits by predatory bands of youths. One cannot but feel sometimes that the obsolete bastinado had wholesome merits when applied vigorously to such petty pirates.

THEY are still picking grapes in Colusa county, or were a few days since. They are described by the *Herald* as large and plump, and just as fine as could be found anywhere a month ago. Doubtless the late storm ended the grape season definitely.

THE Redlands *Citrograph* denies the existence of "dry rot" in the orange crop, and says there is no cause for uneasiness. A black spot caused by bruises or otherwise occasionally appears in the orange. That is all.

COYOTE scalps are coming into Fresno by sackfuls. The $5 bounty proves irresistible to hunters, and the poor beasts are hurled into the coyote hereafter by hundreds.

PACIFIC RURAL PRESS.

By The Dewey Publishing Co.

Office, 220 Market St.; Elevator, 12 Front St., San Francisco., Cal.

Annual Subscription Rate Three Dollars a year. While this notice appears, all subscribers paying $3 in advance will receive 15 months' (one year and 13 weeks) credit. For $2 in advance, 10 months. For $1 in advance, five months. Trial subscriptions for three months, paid in advance, each 60 cents.

ADVERTISING RATES.

	1 Week.	1 Month.	3 Months.	1 Year.
Per Line (agate)	$ .25	$ .50	$ 1.20	$ 4.00
Half inch (1 square)	1.00	2.50	6.50	22.00
One Inch	1.50	5.00	13.00	42.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type, or in particular parts of the paper, at special rates. Four insertions are rated in a month.

Our latest forms go to press Wednesday evening.

Registered at S. F. Post Office as second-class mail matter.

Any subscriber sending an inquiry on any subject to the Rural Press, with a postage stamp, will receive a reply, either through the columns of the paper or by personal letter. The answer will be given as promptly as practicable.

ALFRED HOLMAN.....General Manager

San Francisco, December 31, 1892.

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[NEW THIS ISSUE.]

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Squirrel and Gopher Exterminator—Wakelee & Co.
Shire Horses—Parsons and Griffith, Geyserville.
Seeds, Plants, Etc.—Sherwood Hall Nursery Co.
Dividend Notice—San Francisco Savings Union.
Dividend Notice—German Savings and Loan Society.
Poland-China Hogs—H. J. Philpott, Niles.
Black Percheron Stallions—L. V. Willits, Watsonville.
Seeds—Mesa Seed Co., Salt Lake City, Utah.

☞ *See Advertising Columns.*

The Week.

Californians had a wet Christmas, but as a rule they did not grumble. The storm, which began on December 22d, attained great proportions and covered the whole area of the State. It continued four or five days with intermitting severity, but was for the most part a warm storm in California valleys. The wind attained considerable velocity, but was not particularly destructive. The precipitation was very heavy in some localities, and some damage has resulted from swollen streams and broken levees. As we write on Wednesday the weather seems clearing.

The holiday season in the city is progressing as favorably as possible under dripping skies and flooded streets. Christmas was generally and happily celebrated, both in public and household events. New Years is just at hand, and we take occasion to extend to all our readers our best wishes for a new year of happiness and prosperity unparalleled.

Index to Volume XLIV.

As this issue closes the current half-year volume of the Rural, we devote the last page to a carefully-prepared index of the issues since July 1. A glance at the index will show how broad and varied has been the range of subjects considered, and how thoroughly they relate to the specialty which we serve. The reader of the Rural who files away the current issues and upon the receipt of the index fastens the 26 numbers together or has them bound in a volume, has a source of information which will be of continual interest and value. The index, of course, makes it possible to turn at once to all the phases of treatment which the subject has received in our columns. In the indexing we have given most attention to matters of practical importance as data of this nature are most likely to be sought for reference.

The hop surplus on hand in the State is thus estimated by the Santa Rosa *Democrat:*

	Bales.
Sonoma county	2600
Mendocino county	1041
San Francisco	2000
Sacramento and vicinity	8000
Total	13 641

For The New Year.

Never before perhaps has the Californian approached the border line between the old and the new with a stronger light of confidence upon his pathway than now guides his steps. Natural conditions could not have been better arranged if all the forces of the material universe had purposely combined to favor California. The autumn was unsurpassed; not a condition working injury and at the same time not one to foster foreboding for the future. The croaker and the growler could not catch a pretext in earth or air or sky and were silent, The opening of winter had the two superlative qualities of lateness and mildness; even the wind, without which no storm of moment can be had, was warm as well as strong. The downpour was generous,and no intervals of drouth and killing frost intruded in regions where frost is feared. Work was well along, and never before did the California farmer listen with more comfort and content to the long roll of the raindrops on his roof. It is true that there may still be conditions locally adverse. January has possibilities of low temperatures, and all the winter may menace the low lands with flood and the hillsides with washes, but there is far more reason to forget such reflections than to anticipate them. The shaping of the season thus far warrants the expectation of one of the most comfortable winters and one of the most auspicious for full production of field, fruit and garden crops that the State has ever enjoyed.

Such being the natural endowment of the season, it is gratifying to note that in the human factors of the industrial equation there are similar signs of promise. Upon the whole, the productive enterprises are in good shape and are disclosing signs of progress which augur satisfactory development. Even in directions in which there has been reason for doubt and distrust there is now appearing promise of triumph over obstacles and ultimate reward. The State is unquestionably advancing, not in boom spirts but steadily and quietly. Our industries are growing well, as the year's statistics, when available, will show; but greater advancement than that of centals, gallons or carloads, is to be found in the fact that our people are learning how to shape their efforts to secure the best results. This fact has become more apparent in the last year's experience than in all the years which have preceded. It is this which gives the greatest promise for the future and constitutes the surest foundation for the coming greatness of the State.

Our fruit industries comprise the greatest factor in our present prosperity, and in them, too, seems to be the chief expectation of advancement. Never before did such quantities of fruit, both green and dried, go forth from California as during 1892. Values, on the whole, were good and the demand satisfactory, and yet it is clear to all that the grower did not nearly realize his share of the gross returns, nor does it appear that the amount delivered to distant consumers was more than a fraction of the quantities which can be thus disposed of. The better marketing of fruit and the better distribution of it are then deeply involved in the prosperity of the industry as they have been since the beginning, but the movements among producers this year, centering at Fresno and in the Santa Clara valley show that something is about to be realized from the discussion which has prevailed. It is apparent that the California producer must master the situation, and he never showed such signs of mastery as now. This we hold to be one of the most hopeful signs for the future, and it affords encouragement to the extension of our fruit-producing lines. With this in view, we feel surer of the outcome of the vast plantations which will be made this year of all kinds of tree fruits than would otherwise be possible.

Live stock enterprises also promise well for the future. The continued rich returns for the produce of our racing studs brings greater funds to our breeders, and, what is perhaps more promising, the activity is drawing the attention of the whole country to the desirability of better stock. The time of the fancy values may pass away, but the elevation of the whole range of prices for better animals will be enduring. Similar views must be held with regard to the cheapening of the best blood of horned cattle. It is no longer a fancy commodity; it is a staple and it takes the prices of a staple, with narrow margins but a safety and solidity which signifies that it has become a popular dependence. Every one of the innumerable indications of progress in dairy practice is also significant. Producers are sending out marketable commodities at a lower cost rate and in greater quantities than ever before. This, too, is an unmistakable indication of advancement.

We are aware that the western mind is trained to look for signs of prosperity in times of unusual movement and in ebullitions of activity, but these are not the best indications. To us the present growth of California, with its quiet and steady gain of population and capital from without and with its interior development mainly based upon the results of experience and the rewards of production, is the most hopeful of its history. With such a gait the State will go forward into a new year with everything propitious and with assurance of a good years' progress. Those who have idle funds for wise investment should not stay their hands. It promises to be a good year for the enlistment of both capital and strength in well directed progressive effort.

Better Outlook for Vineyard Products.

Mr. Clarence J. Wetmore, executive officer of the State Viticultural Commission, has been gathering statistics of the California wine output for 1892-93. They are yet incomplete, but enough is known to warrant the statement that the total product will fall far short of the total for 1891-92, and will not exceed 12,000,000 gallons. The total last year was about 16,000,000 gallons. Roughly estimated, the product in gallons for the present season will be as follows, comparison being made with the outputs for 1890 and 1891:

County.	1892.	1891.	1890.
Napa .....gallons.	2,200,000	4.000,000	6,500 000
Sonoma	2,750,000	2,750,000	3,500,000
Alameda	1,100,000	1,250,000	1,500,000
Santa Clara	2,250 000	4,500,000	4,000,000
Santa Cruz	250,000	250,000	250,000
Fresno	1,000,000	1,000,000	1,000,000
Los Angeles	500,000	500,000	600,000
San Joaquin	500,000	500,000	500,000
All other	1,000,000	1.000,000	1,000,000
Total	11,600,000	15,750,000	18,850,000

The reduction in the output has been due to familiar reasons—heat, bad weather in the time of flowering, producing *coulure*, restriction in the acreage; and phylloxera. Some growers have dried their grapes, owing to the poor condition of the wine market. It is far from the truth to infer from these conditions that viticulture has fallen into chronic decay, or that it will cease to be a leading industry of the State. The reduction in production in 1892 has been due to unusual and unprecedented reasons, all of which can scarcely prevail at one time in the future. It is true that poor prices have generally prevailed since 1885, and that growers and producers have met a considerable degree of discouragement from that source. The phylloxera has appeared and by its ravages destroyed large parts of a number of vineyards. But these conditions are not necessarily permanent, and are not such that they may not be materially improved by increase of consumption, reduction of competition, and safer and more intelligent methods of growing grapes, care of the vine, and protection from disease. There is a market ordinarily in the United States for about 18,000,000 gallons of wine, of which perhaps 4,000,000 are supplied by France. The shortage in this year's California product appears certain to improve prices over the figures of the past several years. The market has at this time a better tone than for many months, and quotations are now higher than one year since. There is in San Francisco and other cellars a very large aggregate of empty cooperage, indicating that stocks are running down, and that dealers must shortly seek to replenish. When the buyer, and not the seller, is the seeker in the market a wholesome condition and an active demand are certain to ensue.

It seems to be good policy, therefore, for the producer to be in no hurry and not to force sales at this time. Of course there are some, perhaps many, whom stress of circumstances will not permit to delay disposition of their holdings at this time. But a survey of the situation discloses that winemakers generally are holding back, believing a few months will bring a marked advance in prices and a strong inquiry for wines.

The signs of the times point to a revival of the industry. Many wine men in San Francisco think twenty cents per gallon will be easily secured before the next vintage.

Improvement in the market this season will be of marked and permanent benefit to the entire industry. With low prices obtaining through a series of years, there has been no sufficient inducement for growers to take adequate measures in fighting phylloxera. The viticultural commission has information that in Napa county there has been a decrease in average of 2000 acres—from 18,000 to 16,000—due to this cause alone. It is estimated that if no attempt were made to check the phylloxera, in six years the vines would be wholly ruined, and the industry totally prostrated. The planting of resistant vines has been the only successful means so far discovered of checkmating the operations of the destructive louse. At the present time it cannot be said that the movement for protection of the industry by this means has reached extensive proportions. The chief reason for the apparent neglect and indifference of growers is the cost—an average of perhaps $150 per acre. Paying prices means positive betterment of the financial condition of growers and wine-makers, and consequent ability to expel the diseased vines from their vineyards, and replace them with vermin-proof resistant vines. The general outlook for the wine industry, therefore, seems to us to be more healthy and encouraging than for several years past.

From an Independent Standpoint.

Of the 120 members who compose the State Legislature soon to meet at Sacramento, something more than half represent rural constituencies; and it would be a natural inference that the interests of the farm, the orchard, the vineyard—the whole range of rural pursuits—and of those who follow them, would be carefully looked after. If the merchant class had a clear majority, the interests of trade would be secure; and the principle would hold good with reference to every other class and its particular interests. But there is one exception; in the case of the farmer the rule fails. Year after year he asks for simple justice, but his appeals are neglected; while demands on the part of those who feed upon agriculture are promptly answered. There has not been in California, since the earliest times, a Legislature in which the representatives of country constituencies were not superior in numbers; and yet, there has never been a session in which rural interests have had equal consideration as compared with other subjects of legislation.

Many things combine to maintain this unnatural and unfair status; but the chief cause lies in the organization of legislatures upon political lines and the co-relative fact of their domination by political managers. By the first means—by the single stroke of political organization—the rural force in each legislature is divided, cut squarely in two; and by the second, the divided parts are pitted against each other. Instead of working in union for ends which both want, or should want, the country members are led by politicians first into division and then into combat; and the unvarying consequence is a reenactment of the folly of the old fable, where dogs fight over a bone while the fox trots gaily away with it. So long as representatives of the country allow themselves to be organized into opposing elements, just so long will they play into the hands of their enemies. It is in the nature of things that the interests of transportation, trade and the like should control the political organizations; and the real opportunity of the agricultural interest in the legislature is to remain outside of such organizations free to join forces at such times and in such ways as the calls of justice may give occasion.

In the Legislature soon to assemble the representatives of rural constituencies may, if they choose, hold the balance of power; and, if they will deal wisely with this weapon of strength, they may promote such legislation as they want, defeat such as they oppose—in short, they can, if they will, regulate the doings of the session in all respects relative to the interests of those who elected them. At the very beginning of the session they ought to come together and agree upon a line of policy; and the first article of their covenant should be a pledge to remain free from the domination of the political bosses. It is not recommended that a Republican shall give up his Republicanism, a Democrat his Democracy, or a Populist his scheme of reforms; let each man stand true to the political creed upon which he was elected; that is right, and good faith demands it. But it is one thing to stand firm in support of political principles and quite another to fall under the domination of partisan bosses. It is against the latter that we urge an independent stand. It is the pitfall into which the rural legislator usually tumbles headlong, and from which he emerges bound hand and foot; compelled to look on inactive and silent while the interests for which he ought to stand, for which he is bound in honor to stand, are sacrificed or abandoned.

A combination of rural representatives, such as we propose, could prevent the election of an unfit man to the U. S. Senate. We do not need to tell the public that unfit men are in the race, and that they have strong backing. So powerful, indeed, are the interests that seek to add another to the list of corporation agents at Washington, that there is scarcely a chance of putting in a proper man unless the rural element shall unite in support of the broader and higher interests of the State, and stand in resolute opposition to the sinister forces of "politics" allied with corporation capital. Such union can be brought about without sacrifice of political principle or party loyalty; and if made in the right spirit it will save California the damage and the discredit of another shameless prostitution of the senatorial office. It would not be practicable and not desirable for the rural representatives to force upon the legislature a particular man for the Senate; but it would be practicable and entirely reasonable for them to stand in resolute and united opposition to an unfit man. If they fail to do it, they will be derelict to duty.

In reply to an estimate of qualifications for the Senatorship, printed in these columns last week, we are told that there are no men up to the standard; and one correspondent smartly remarks that "the RURAL will have to go to Utopia for its candidate." Now the RURAL will have no candidate, but it flatters itself that it knows what the people of California want—at least it knows what they do *not* want. They do not want a man deficient in character either public or private; a man lacking knowledge of the State or any part of it; a man not sufficiently intelligent to have both knowledge and convictions upon general national questions; a man connected with corporation interests; a man wanting personal energy or business habits; a man who is a mere speechmaker and wind-bag; or a man so allied to political or business interests as to be limited in freedom of view or license of action. And we maintain that such men are common; that there is from one to ten in every county of California. But, we are free to admit, such men are not common in what has appointed itself a *political class.* Indeed, if there is a single man in the whole list of those who may be called "politicians" who fills the bill as we have stated it he has thus far escaped our notice. But if the Legislature will look beyond this political class; if it will search the countryside and the village business group; or seek among the sober, reputable element of our cities (for we are not so narrow as to insist that the Senator must come from the country) it will find not one man but many capable of representing California in the Senate with ability and dignity.

There is a scheme on foot to throw over the Australian balloting system under which California voted at the late election, and either to return to our old system or take up another which will be offered to the legislature in ready-made form. The proposition will ostensibly come from some rural county, (since there are always country members foolish enough to serve as stool pigeons) and it will be alleged that the movement for change is of rural origin; but, as a matter of fact, it is a scheme devised and hatched by city politicians, and its purpose is to do away with regulations designed to prevent thugs and bosses from controlling elections. The boss who "handles" mercenary voters naturally objects to a system which seeks to prevent him from seeing to the "delivery of the goods". It will be urged against the new system that it is cumbersome; that it puts illiterate voters at disadvantage; that it is too costly—and what else we do not know; and a good many influences which appear to be respectable will support the appeal for change. Let not the legislature be deceived; let it be borne in mind that any system that will protect the liberty of the voter must be elaborate; that voters, generally, found little difficulty in getting in their ballots at the late election; that another time the expense will be very much less; and that it is better to have an expensive system of balloting than to submit to the results of fraud at the polls. A simpler system would, no doubt, be more convenient in the country where there is, comparatively speaking, no attempt at fraud; but in the cities and particularly in San Francisco where there is always an effort to influence the election by corrupt practices, safeguards against illegal voting are absolutely necessary. The best evidence that the "shoe pinched" last November is in the frantic effort of the bosses and those who co-operated with them to overthrow the Australian system. It should be borne in mind in dealing with this question that the people of the State at large have equal interest with the people of the cities in making elections in the cities fair and straight.

About a month ago, Mr. Philip Armour of Chicago, gave three millions of dollars for the foundation of a manual training school. His plans provided for an establishment fully endowed and equipped to support an attendance of four thousand students. A gift so magnificent for a purpose so good was almost unprecedented; and it was perhaps natural that the newspapers of Chicago and elsewhere should go to extravagant lengths in their compliments to Mr. Armour. He was called by every good title known to eulogy, and it was declared that his name would go down to posterity as one of the greatest benefactors of mankind. While the echoes of public approbation are still in the air, Mr. J. D. Rockefeller steps up and to-day (Dec. 27th) gives to the Chicago university a pledge for one million dollars to be delivered in Dec. 1893; this gift being Mr. R's fourth donation to the same institution, the grand total of his beneficence being in the neighborhood of four millions—one million ahead of Mr. Armour. The news of Mr. Rockefeller's gift is accompanied with the usual laudation of the giver; and if we may believe all that is intimated, he and Armour will go arm-in-arm down the "grand aisle of the centuries" as illustrious examples of God-like nobility.

How did Messrs. Armour and Rockefeller acquire this money? Something over twenty years ago the former saw a chance to squirm into a position between the meat producer and the meat consumer in the Chicago market. His plan was not to add to the production or to widen the market—simply to stand between the seller and the buyer and demand toll. By dint of unscrupulous intrigue he accomplished his purpose, and in time no producer in the whole West could sell beef except to Armour or his allies at prices of their own fixing; and no retail butcher could buy his supplies except from the same "combine" at such prices as they chose to exact. Under the system which Mr. Armour brought to perfection and which still operates under his guidance, the price of beef cattle fell to the minimum and is held there; while the price of butchers' meat rose to the maximum and is held there. Armour and his allies have accomplished this; and what the producer loses on one hand and what the consumer loses on the other goes into their pockets. Mr. Armour has grown vastly rich and it is for him an easy matter to give four or five per cent of his wealth to a benevolent purpose; indeed, a profitable thing since it silences many who condemn his methods and gives him new license under the cover of a charitable and moral whitewash to continue his predatory course. Rockefeller's career is the Armour career over again with the basis of operations transferred from beef to coal oil. The Standard Oil Company, of which Rockefeller has been (and is still) the leading spirit, has on one hand cut down the earnings of the oil producers and on the other held the price of oil to the consumer above its normal level. Its success has involved the subsidization of railroad companies, the mercenary manipulation of politics and the cruel destruction of business rivals. Mr. Rockefeller has grown enormously rich; is said to be one hundred and sixty times a millionaire. To him the gift of one million or four is of small consequence; it limits him in no comfort, convenience or indulgence; it is even profitable since it diverts public notice from the nefarious practices of his "business."

These men have produced nothing; they have really earned nothing; their wealth has been drawn from the industry of others. They have been mere leeches to suck up and enriching themselves with the spoils of other men's labor. To these men—to all men of their kind—we deny the credit and honor of philanthropy, no matter how much they may give or to what purpose! There can be no genuine generosity in men who make the necessaries of life dear, that they may pile up useless millions. They have the hearts of brigands and pirates, and their so-called generosity is either the lavishness of soldiers of fortune or a shrewd investment in public good-will. These falsely-called benefactions are in effect a public damage, since, invariably, they raise up a horde of unthinking and sentimental apologists to deaden the moral perceptions of the public by glossing over iniquities. Better far is it for the moral health of the country that such men should die as they have lived, like Gould, than to gild their infamies with a thin veneer of public benevolence.

The Nicaragua Canal.

MERCED, Dec. 26, 1892.

TO THE EDITOR:—In the issue of the RURAL PRESS of December 24th, attention is directed to a remodeling by amendment of the scheme of the Nicaragua Maritime Canal Company, with which palliative the bill is to be urged for passage after the holidays. "The amended measure is not yet complete, but it will, so Senator Morgan says, amount *practically* to a transfer of the project from private to Government ownership."

In quoting from the RURAL, I have italicized the word "practically" because it disguises the real object of the promoters, which is, to state it without circumlocution, a device whereby the canal may be constructed upon the credit of the United States for the benefit of the Canal Company.

It will be remembered that as an inducement for obtaining a charter, the promoters of the scheme protested that no request for pecuniary aid for the prosecution of the work would ever be made to Congress, and the position now taken is that the company is not asking for an appropriation for that purpose, but only for a guarantee in order to obtain a loan of $100,000,000. The indignation which would be provoked by such mendacity as a request for an appropriation of that amount is the only thing that has prevented a suggestion of it; hence the subterfuge of a guarantee, the bonds of the company without it not being efficaciously marketable.

The proposition now is that the United States and the Nicaragua Maritime Canal Company shall cooperate in cutting the canal; that the impecunious company shall borrow the necessary capital to complete the work but just begun—that it shall transfer to the United States seventy per cent of said bonds, whether as collateral security or to be vested in possession is not yet known; that it shall have a paramount control in the directorship, and that in consideration of the premises the United States shall guarantee the payment of the bonds.

Has Congress the power to guarantee the payment of a debt contracted by an individual or corporation? Indubitably not. "The Congress shall have power to borrow money on the credit of the United States." Cons. U. S., Art. 1, Sec. 8.]

The Constitution has delegated the power to borrow money for the use and benefit of the United States, but has not delegated to Congress power to loan the money of the people to an individual or corporation or to guarantee the payment of a loan made by either, and it is incredible that any Senator or Representative, not corruptly interested, should be insensible to the fraud upon the people of the United States couched in the supplemented phraseology of the bill.

Notwithstanding the incontrovertibility of its unconstitutionality, and its amazing audacity in view of the late political cataclysm, it is not impossible that the measure may squeeze its way through provided enough Democrats can be either hoodwinked or influenced to favor it by the methods usually adopted with legislators of doubtful honor and pliant consciences. The imminent danger that the company may obtain the legislation it seeks so zealously just now, is that the bill is under manipulation by some Democratic members whose unquestioned legal attainments forbid the suspicion that they are ignorant of its brazen illegality.

Prior to the war for secession which demoralized all classes, and notably the politicians, a Southern Democratic statesman would rather have been charged with larceny than with having a private interest in an Act of Congress the effect of which was to plunder the

people for the benefit of any individual or corporation fired with the ambition and greed to tax the commerce of the world, and resorting to shameless and inexcusably illegal means to compass the selfish object.

Throughout the whole history of federal legislation, no scheme has been more audaciously presumptuous than that of the adventurers who have proposed to execute one of the most costly enterprises of modern times—most important to the United States, and of essential import to every other nation, and this too without, comparatively, a dollar for its prosecution, relying first for success upon their financial ability to convert their bonds by placing them upon the markets of the world and, failing therein, resorting to address, personal influence, inflated public sentiment and coalition with public servants to obtain the autograph of our Uncle Samuel as security for $100,000,000, though his experience in other confidence games in which he was forbidden by his Constitution to indulge should have taught him he must again pay the penalty of his credulity.

As a business scheme, the joint ownership and directorship is an absurdity; as a cooperative project it is an insult to the people of these States, as it presupposes inability on the part of the United States to complete, except under dual ownership and control, a design conceived by them half a century ago, subsequently demonstrated to be feasible by the survey of their engineers, and intended not only to facilitate the commerce of this country, but to be a benefaction, through judicious taxation of tonnage, to all the peoples of the earth. Considered as a constitutional and lawful act, every phase of the Nicaragua imbroglio has been an impeachment of the statesmanship of the Democratic party.

Why has not the constitutionality of the charter and every amendment to the pending bill been challenged? Neither the excuse of ignorance nor of inadvertence will avail. Against the unconstitutionality of the grant the evidence is complete.

August 18.—In Convention. Mr. Madison submitted, in order to be referred to the committee of detail, a series of powers, one of which was "A power to grant charters of corporation in cases where the public good may require them, and the authority of a single State may be incompetent. Mr. Pinckney, on same day, also submitted a number, among which was "A power to grant charters of incorporation." August 22.—Mr. Rutledge, from the committee to whom were referred the propositions of Mr. Madison and Mr. Pinckney, reported in favor of some of the propositions, but not for a grant of charters of incorporation.

In Convention. September 14, 1787. Dr. Franklin moved to add after the words "post roads," Article I, Section 8, a power to provide for cutting canals where deemed necessary. Mr. Wilson seconded the motion. Mr. Madison suggested an enlargement of the motion into "A power to grant charters of incorporation where the interests of the United States might require, and the legislative provisions of the individual States may be incompetent." Mr. Randolph seconded the proposition. Mr. King: The States will be prejudiced and divided into parties by it. In Philadelphia and New York it will be referred to the establishment of a bank, which has been a subject of contention in those cities. In other places it will be referred to mercantile monopolies. Col. Mason was for limiting the power to the single case of canals. He was afraid of monopolies of every sort. The motion being so modified as to admit a distinct question, specifying and limited to the case of canals—Pennsylvania, Virginia, Georgia, aye—3; New Hampshire, Massachusetts, Connecticut, New Jersey, Delaware, Maryland, North Carolina, South Carolina, no—8. Madison Papers, pp. 462, 543, 544. Journal of Constitution, pp. 256, 310.

Here, then, we have a company with a fictitious charter proposing to make the United States a party to its scheme through a guarantee of an estimated indebtedness of $100,000,000, and in consideration of the guarantee offers to transfer certain stock and a designated share of control in the operation of the enterprise. Even if the grant of incorporation were valid, the United States, for want of constitutional power, could take nothing by the proposed transfer. Here is the proof: "The Congress shall have power to dispose of and make all needful rules and regulations respecting the territory or other property belonging to the United States."

The only property which Congress has the power to dispose of or make needful rules or regulations respecting is the territory or other property belonging to the United States. This imaginary corporation is to operate on territory belonging to foreign nations and Congress is limited by the Constitution to the disposal and regulation of property belonging exclusively to the United States. As the property, according to the amended bill, is to be jointly held by the United States, by the Company and by Nicaragua and Costa Rica, Congress can neither dispose of it nor make any regulation concerning it; hence the conferring of a directorship would be nugatory, and the transfer of a share of the bonds would be a void act for want of constitutional power to acquire property which is to be held jointly with another. As Congress can neither loan money nor guarantee a loan made by any person, individual or corporate, the company must either prosecute the enterprise with its own funds or transfer *all* its title and interest to the United States for a valuable consideration.

What in the name of all the gods at once is the matter with the politicians at Washington? Have the heretofore successful plottings against the Constitution fascinated them? Why, this amended bill is simply an application of the parable of the devil taking the Savior up on a high mountain!

What was the meaning of the late election? If it had any worthy of consideration, it was that federal legislation must hereafter be in the interest of the people and not merely for those who can purchase it; that the conspiracy between Congress and the bankers and bondholders, the traffic between it and the manufacturers, the alliance between it and corporations, and the pandering for votes by the enrollment of supposititious pensioners and the constant violations of the Constitution would no longer be tolerated.

No federal system has ever been devised so perfectly adapted to the government of a free people; so patriotic in conception; so perspicuous in purpose; so clear in expression—and, in conjunction with the debates in the Convention (fortunately preserved for us)—so definite as to the boundaries of its powers.

The present is the time in which, and the guarantee of the bonds of the Nicaragua Canal Company the object against which, the friends of the Constitution should make a determined stand. If the Democratic party at every opportunity justifies, by its defense of the oracle of the people, the flattering preference for an administration of the federal Government by it, and divines truly the cause for the change, its term of service will continue until the revolt from the infamous legislation which was no longer endurable, shall have become a tradition.

With the sentiment of the people overwhelmingly in favor of the ownership, directorship and controllership of the canal by the United States, the abrogation of the Clayton-Bulwer treaty is a foregone conclusion. The Nicaragua treaty made with the United States, which granted a strip of territory three miles wide on each side of the canal, with perpetual right of way across its territory, together with other generous and valuable inducements, which treaty was inconsiderately withdrawn by Mr. Cleveland, should be returned to the Senate at his earliest opportunity. Its revival is demanded by every consideration which should actuate a patriot and statesman. The reimbursement of the Maritime Company for all expenditures, and with interest, is not to be controverted.

This being done, and the interocean waterway completed and opened to commerce under the just and beneficent control of the people of the United States, every nation will participate in the common benefit. Upon the western coast, in every hamlet and mart of trade its revivifying power will be felt. So potent will be its transforming influence that even the desert lands will be converted into fertile fields, embellished with groves of fruit and adorned with flowers and happy homes. What wonder, then, considering this inspiring subject, that, with fuller evidence, a less clouded view, and maturer judgment, the RURAL had cause to reverse its opinion as to the proper operation and ownership of the Nicaragua canal? The desire to be right rather than consistent, as exemplified in this instance, will tend to evoke greater confidence in the RURAL PRESS and secure for it a more extended patronage.

Truly, Mr. Editor, I can say that I know of one who admires your candor and commends your better service. M. N. M.

A Letter from Tahiti.

PAPEARI, TAHITI, Nov. 9, 1892.

TO THE EDITOR: It is spring with us here. All vegetation is in the prime of its annual growth. Fruit trees of all kinds are laden with their rapidly growing fruits. Summer will soon be here and with it the harvest of the orange will commence. Orange trees are well laden with fruit, the oranges being of three different sizes. The first will be harvested in December or early January, and the picking will continue until August.

In manyof the islands a little south and also westward, oranges are now ripe. The seasons on the different islands differ very much, although they may be separated but by a few degrees. I shall endeavor to collect exact data as to time of ripening of the fruit upon this and surrounding groups.

All shipment of oranges from Tahiti to California is considered by the shippers to be over; and unless California should suffer the complete loss of a crop, the exportation from here to her markets will be an enterprise entirely of the past. The exportation to New Zealand will continue until Australia comes to the front and supplies the market.

The once-beautiful cocoanut groves of Tahiti are seemingly a complete ruin. A palm scale, introduced here, has swept the groves like a hot blast of fire. What the future holds in store for this beautiful tree is hard to tell, but they are in a sorry condition now. ELMO R. MESERVE.

A Novel Gopher Killing Method.

VACAVILLE, Dec. 27, 1892.

TO THE EDITOR:—I send you to-day a novel recipe for killing gophers. It is this: Catch an old male gopher. Tie a string to one hind leg to carry him by and start out. Find a gopher hole. Open it with a spade or other convenient instrument. Put your old gopher down near the mouth of the hole and go to whipping him. He will soon begin to squeal. Out will come another gopher, on the fight. Knock him on the head. Pick up your "bait" gopher, go on and repeat the operation.

This novel method of killing gophers is practiced by some little boys in this vicinity, who kill a great many in that way, and make money by it, too.

The theory is this: The gopher is a terrible thing to fight—especially the old males, and when they hear the old "bait" gopher squealing at the mouth of the hole, they are sure to run out and pitch on to him, when they are easily killed. W. W. SMITH.

The Game Law.

When the game law was amended the law used was so ambiguous that a great many construed it to mean that game used for food could be killed at any season of the year. Of course it was never intended that such a license should be granted.

Crittenden Robinson, president of the Sportsmen's Association, addressed an inquiry to the Attorney-General and received in reply the following:

"Yours of the 26th ult received. I agree with you in the construction of game laws: Section 626 Penal Code, Statutes of 1891, page 472. The killing of game is not *mata in se* or wrong of itself, but is wrong only when, for the public good, it is prohibited by statute. The best of citizens, through lack of acquaintance with law, are liable to violate it.

"Under the eighth paragraph of the statute, it is a misdemeanor to kill any of the birds or other animals therein mentioned *at any time of the year*, whether during the open or closed season, 'unless the carcass of such animal or bird is used or preserved by the person taking or slaying it, or is sold for food.'

"This was enacted to prevent the wanton and wasteful destruction of game by persons who are not in pursuit of food either for themselves or for others, but who kill for mere amusement or for the hides of animals. The law is a good one and should be rigidly enforced, for game is becoming scarce in the State, and the food supply of a country cannot be too great. I do not think any one in this office ever meant to express views differing from these."

Why are Ducks Scarce.

The Lincoln *News Messenger* ventured to suggest that the prevalent scarcity of wild ducks and geese this season is due in large part to the fact that carp have denuded the lakes, ponds and sloughs of plant life, and the Wheatland *Four Corners* responds in the following humorous and sarcastic vein:

"The *News-Messenger* is no doubt right in the theory for we have heard the residents along Plumas lake and Feather river complain of the carp. In some places they are as thick as mudhens, and have a similar habit of making regular rounds upon the grain and pumpkin fields not farther distant than fifty miles from water. The carp is a carniverous fish. We have known fishermen who have lost the soles of their shoes and even now and then sacrificed a leg in answer of the carp's jaw, when they have been so negligent as to angle with their pedal extremities in juxtaposition to the water. Thousands of our hunting dogs of the choicest breeds have hung their scalp on the watery girdle of the carp. In connection with game, the carp has not been satisfied in robbing the fowls of daily bread by mowing the fields for miles around, but have taken extreme delight and solid comfort in grasping the ducks by the right hand as they swam upon the water, and invite them into the carps' parlor at the bottom of the stream. No doubt the carp is a great factor in the game question and should they not receive congressional appropriation shortly, they will come into greater prominence."

THE season of "orange festivals" has begun in California. A number of very pretty entertainments have already been held in several parts of the state.

The Raisin Situation.

William Harvey, secretary of the State Raisin Growers' Association, when asked by the Fresno *Expositor* what the present raisin situation is, said:

"Many of the growers have received cash returns for all raisins delivered at the packing houses before November 1st. The average price received, after deducting all expenses, nets the grower from 4⅞ to 5¼ cents per pound. This satisfactory result is due entirely to the association.

"The growers who have not done so well as this are those who lost control of their raisins by taking advances on them.

"Those who received these prices were always ready to say to the brokers who insisted on cutting prices, 'No, the raisins are ours and we will not sell them for less than combination prices. We will hold them first.'

"One of the difficulties which the raisin market has had to face is that there has not been capital enough in Fresno to hold the raisins till the consumption in the East should create a demand.

"Brokers in San Francisco and in the East have in many cases advanced the grower the freight, and often more, and in exchange for this favor, taken control of the raisins.

"In some cases many carloads have been sent to one city, and thus a glut of the market has resulted, and the brokers who had advanced money on the raisins were mostly concerned in getting their money out of them.

"The result of this can be easily understood. The raisins are often sacrificed.

"One-half of the pack of the State this year, equal to 1000 carloads, was sent East, and was sold before November 1st at what merchants said was combination prices.

"The second half, or 1000 carloads, was sent to large cities, and in many instances the price has not been satisfactory.

"Overproduction of raisins is a myth. It is in no way responsible for the present low prices. Judicious marketing will remedy any evil in this direction.

"One great difficulty has been that the market has had to face several small growers who sell their crops for what they can get, and often this is one, one and one-half or two cents a pound. These raisins have been forced into the market in competition with others who have insisted on combination prices.

"This has, in some cases, resulted disastrously. The brokers were not willing to hold the umbrella over these small growers who were thus slaughtering prices, and the prices have been broken, and in some instances raisins have been sold very low."

Thinking it would be a good item of news to publish the names of a hundred or more growers who had received 4½ cents or more for their raisins this year, the reporter asked Mr Harvey for such a list. He said he had not the list made out, but would prepare for publication a good list of growers of this county who had received these prices.

The Orange Crop.

From every part of the orange region of Southern California there comes a report of a large yield of citrus fruit now hastening to the ripening. A Pomona man, who was sent out by Chicago fruit dealers to make a careful estimate of the prospective crop, tells us that but once before has he ever seen orange trees so generally well filled with fruit, and that in Pomona, Ontario, at Santa Anita, and near San Gabriel, he found the most enormous crops of oranges, tree for tree, he ever saw. At Riverside and Redlands every fruitgrower reports the trees heavy with fruit, and the same statements come from Santa Ana valley.

Unless some climatic calamity, now unforseen, occurs between this time and next March, there will be literally hundreds of thousands of dollars to flow into the hands of the orangegrowers of Southern California. We shall have the best market for our citrus fruits for several years. The buyers are offering, even as early as this in the season, $1.20 and $1.35 a box for Seedlings and $2.50 for Navels, with the prospect of an unprecedentedly large yield, too. We all remember prosperous orange seasons when the market has opened on $1 a box for Seedlings and $2 for Navels, and when March came the price rose to $1.50 for Seedlings and $3 for Navels.

The prospect for the orangegrowers is bright indeed and (that is, barring climatic conditions) for a royal season of prosperity—unusually good prices for fruit and and a great crop. Who could ask for more?—Pomona Progress.

Weather for January.

The local weather bureau gives out the following facts relative to weather during the month of January, from data compiled by observation covering a range of twenty-one years: Mean or normal temperature, 50.4°. The warmest January was that of 1873 and 1877, with an average of 54.6.° The coldest January was that of 1890, with an average of 46.2°. The highest temperature during any January was 73° on the 6th, 1887. The lowest temperature during any January was 29° on the 15th, 1888. Precipitation of rain and melted snow: Average for the month, 4.67 inches. The greatest monthly precipitation was 11.97 inches in 1878. The least monthly precipitation was 0.98 inches in 1891. The greatest amount of precipitation recorded in any 24 consecutive hours was 4.67 inches on the 29th, 1881. The greatest amount of snowfall recorded in 24 consecutive hours (record extending to winter of 1884-5 only) was 3.7 inches on February 5th, 1887.

GLEANINGS IN OLIVE CULTURE.—Under this title Mr John S. Calkins, of Pomona, has issued a neat eight-page circular on olive propagation, planting and culture, olive as a street tree, etc. The circular will be sent free to all applicants.

HORTICULTURE.

Echoes of the Fruitgrowers' Convention.

MONTEREY, Dec. 15.

TO THE EDITOR:—As your reporter failed to give me a single line in his report I must needs report myself, as I wish certain suggestions I made in the convention to go on record. I think the discussion on "Transportation of Fruits" was the first subject that brought "Berwick of Monterey" to his feet.

He wanted, *and he wants*, to make every fruitgrower and farmer of this State realize the importance to Californian agriculture of the Nicaragua Canal. He pointed out that it would, when built, save our products 5000 miles of torrid zone transport. There would be one journey of say 2500 miles through tropical heat instead of two different spells each of 3500 odd miles. The eastward bound ship-freight would reach its destination in four weeks, instead of four months, etc., etc.; so he proposed the resolution, which was afterward carried, favoring the construction of that canal by the U. S. Government direct, and instructing the Secretary of the State Board to urge immediate action to that end on our Congressmen and Senators.

The railroad resolutions were also offered by him. One of these propounded the proposition that it was for the best interests of this nation that our Government should spend money in transcontinental railroads rather than in increasing our supernumerary ironclads. Berwick of Monterey believed with George Washington that "overgrown military (or naval) establishments are inimical to liberty, and are particularly hostile to republican liberty." Every additional ironclad was an additional chance of foreign embroilment, as the Chilean episode proved. Wherever Jack went ashore "Barbary Coast" allurements were apt to get him into trouble, and might involve this great nation. What was the matter, anyhow, with Government ownership of railroads? The railroad system, great as it is, is only an extension and improvement of our common road system. There are more common roads to-day than there are railroads; and the Government owns and keeps in repair (or out of repair) all our highways and byways. Then why not our railways? But Mr. Aiken and the resolution committee would have none of Berwick's radical ideas, and the convention, something doubtfully, backed the committee.

WASH OR NO WASH.

Bug kill bug, or wash kill bug, was warmly agitated. Berwick believed that while we were awaiting the coming bug our orchards were being ruined by the present bug. He had been round Pajaro lately and seen the apple trees sorely afflicted by woolly aphis and some leaf louse. While we were fiddling, Rome was burning! So he used sprays. He believed strongly in hygiene for the orchardist and for the orchard as well; so he uses washes to keep his trees clean and healthy, free from moss and lichens and aught detrimental.

CALIFORNIA'S FRUIT DROPSY.

Some who held up to the convention the old bogey of overproduction, spoke of it as an impending dropsy.

Berwick of Monterey thought the best way of warding off dropsy was to keep up a good circulation. Build two or three Government transcontinental railroads and circulate your fruit product rapidly and cheaply and there will be no dropsy. We have just passed, said he, what has been called a campaign of political education; we want now a campaign of fruit-eating education. There are millions and millions of money annually worse than wasted on patent medicines; teach our people to eat good, wholesome fruit, instead of worrying their insides with patent pills and potions, and you will have a happier and healthier race of Americans and no fruit dropsy in California. Teach them to eat fruit as the Berwick family do—about a pound each every day of their lives—and there will be no overproduction.

LOW HEADS FOR TREES.

B. of M. believed in low pruning. He was asked for any law of nature to support his theory. Knowing at the moment of no law of nature he at least knew of a law of grace, the law of humility, the low head. "God resisteth the proud but giveth grace to the humble." The high-headed tree is very apt to break down, is inaccessible and inconvenient. Systems were proved by results. B. tried to please his trees and his trees reciprocated and pleased him. He had taken 42 boxes of apples from a single low-headed tree.

USING COUNTY FAIRS AS FRUIT EXCHANGES.

Another resolution handed to the committee by the same B. was to the effect that our county fairs would be of more practical benefit if the old European usage were adopted—of making them meeting places of buyers and sellers of local products, such as dried fruits and dairy products, etc., rather than allow them to become perambulatory centers of gambling and vice. Fairs are still used in older countries for this advantageous meeting of traders and producers! Why not in California?

NORMAL SCHOOL VISIT.

Quite a number of the fruitgrowers visited the State Normal School and listened to the morning's prayerful and patriotic music feelingly rendered, subsequent to which Prof. Childs asked if any fruitgrower would address the school, and meeting no response, singled out Berwick of Monterey and called on him. He, rising to the occasion, expressed the pleasure he always felt in meeting young California. He had great respect for youth, alike in its past, present and future tense. "In the past as something that once was mine; in the present lovely and pleasant as I see it before me; in the future as a thing that we old fellows hope to regain and enjoy eternally." He begged the young folks not to leave school thanking God their education was finished, but glad that it was just beginning. He knew no enjoyment in life greater than the reception of a new idea. That was why the fruitgrowers had met in convention—old as they were—to try and learn something each from the other. There were not only things to learn in life, but, unfortunately, things to unlearn. So they must not be discouraged if they had to change their opinions. He would offer them a verse of Holmes' as a motto:

> "Yet in opinions look not always back,
> Your wake is nothing, mind the coming track!
> Leave what you've done for what you have to do!
> Don't be consistent; but be simply true!"

That was the one thing needful; to be ready to follow the truth regardless of where it might lead. It can never lead amiss. EDWARD BERWICK.

FORESTRY.

National Forestry.

LAMANDA PARK, LOS ANGELES CO.

TO THE EDITOR:—National forestry is based upon two grounds—first, the advantage of maintaining forest production by the control of forests by an undying corporation like the State. Under this head come the prevention of waste, the prevention of fire, the regulation of ripe timber-cutting and provision for the reproduction of the most useful forest growths. A forest management with this object alone would also have to arrange for the exploitation of all the resources of forest lands, other than forest products themselves. These interests would comprise water developments, reservoirs, mines, quarries, game, fish, travelers for health or pleasure, and, in places, pasture.

The object of regulating these last uses of forest lands would not be to curtail or vex them, but to prevent useless waste and destruction of the forests by carelessness and fire.

The reason that national forest management is advantageous to secure a continued supply of lumber and other forest products, is that private or even State management cannot give a uniform system or a uniform protection, nor consider the forests from any better point than a narrow and purely individual or local one.

Thus, in individual or State ownership, a good system adjoining an indifferent or a bad one would be constantly subjected to the dangers of trespass, depredation and fire growing out of the bad one. So, also, a system in regard to some particular forest product, like tar, might be good policy, give returns and maintain product, if uniform and general, while it might, and probably would, be both costly and useless if individual or local.

Besides this, a national system would necessarily consider the forest from a wide and general view as to locality, product and time.

As to locality, a national system would consider, for instance, the interests of Dakota, Nebraska, Missouri and all the States upon the water system heading in Dakota. An individual system would not consider such interests at all. A Dakota system would only consider Dakota and pay no heed to the other States.

As to product, an individual system could only consider individual interest; a State system could only consider State interest. In neither case could national and general interests be provided for.

As to time: The most important forest product, lumber, requires a very long period of time to come to its highest economic value. One, two and often three or more generations must be born and die before a forest comes to maturity. This fact makes it plain that no individual system can ever adequately provide for the reproduction of forests. To secure the reproduction of the most valuable timber requires scientific management covering many years of intelligent and watchful care.

That this care pays handsomely we know from the returns of national forest management in Europe, but individual interests, especially in this country, even if capable of a uniform and broad policy, can never be expected to expend care and money for rewards to be enjoyed only by generations yet unborn.

While the first ground for a national forest management is important, the second is essential.

The second ground for a national forest system is based on the demonstrated necessity for the maintenance of a certain forest area to secure the highest agricultural product from any given territory, and, second, on the demonstrated necessity for a certain forest covering on watersheds. The first base is due to the influence of forests on winds, frosts, climatic extremes, and on their probable effect on the character and distribution, if not on the quantity, of the rainfall. The second base is due to the influence of forests on the delivery of rainfall into springs and streams. As any watershed is forested, so is the delivery of its rainfall affected. If it be adequately forested, the rainfall will be detained and seep into the ground to appear in the springs and streams in a perennial and even delivery. If it be denuded and bare, the delivery of the rainfall will be short in time and floodlike in character. The watercourses in such districts always are of torrential character. The rainfall tends to become diluvial in character and its delivery is so in fact. The water delivery is alternately dangerous in its excess, in its detritus-carrying and detritus-dumping, and in its erosive power, while the sudden flood flow of the rains precludes the possibility of a perennial supply. The water is gone and the stream bed is now a raging torrent, and now a dry and arid waste. Irrigation, domestic water and the value of streams for navigation are all diminished or destroyed by an undue denudation of the watersheds.

Iteration has worn through the shell of prejudice and indifference, and, reenforced by actual recent and recurring experience, has made California a community demanding immediate forest protection for its watersheds.

We favor the Paddock forest bill. At the same time we would have preferred our own bill introduced long years ago, which provided for the withdrawal of all Government lands in forest and for a system of management of the same. The Paddock bill is probably a more practicable measure. It provides for the management and care of forest reservations made and to be made. It consequently looks to a policy of initiative and growth and avoids the difficulty of creating suddenly a large forest force and changing all at once the entire neglect of, and freedom for depredation and waste in, the Government forest lands. On the other hand, every day that passes reduces the Government forest holdings and increases the waste due to carelessness and fire. The situation reminds one of the Roman legend of the Sibylline books.

Whatever defects the Paddock bill may have, it is good—doubtless the best we can now expect—and should be heartily supported.

Granges, Farmers' Alliance units, irrigation communities and all those on streams that would have their flood action dangerously increased by undue forest denudation, should send petitions to Congress *now*, praying for the passage of Senator Paddock's forest bill, S. 2763, favorably reported and on the Senate calendar. ABBOT KINNEY.

THE STOCK YARD.

Tuberculosis in Cattle.

Written for the RURAL PRESS.

The two greatest scourges the dairyman has to contend with are abortion and tuberculosis, the latter being equal to consumption in human beings. Both milk and meat from tuberculous animals are very properly considered unfit for human food, though, possibly the danger has been overrated.

Steers are at all times comparatively free from the disease, so that the danger of human beings contracting consumption from the use of meat from that class of cattle is reduced to a minimum.

In regard to the danger arising from using the milk of consumptive cows, there is great difference of opinion, some holding that its use is dangerous in any and all stages of the disease of the cow, while others contend that it is only when the udder becomes affected with tubercles that there is danger in using the milk. An account of some experiments given in the report of the Secretary of Agriculture for 1891, goes far to sustain the correctness of the opinion maintained by the latter class.

Two Jersey cows (Nos. 155 and 156) which were markedly affected with tuberculosis, were received by the department on the 28th of February, 1891. The following is an outline of the experiment made with the use of milk from the two cows, and the result: "March 18th, two guinea pigs were inoculated with the milk of each cow. At the same time two young pigs were being fed with the milk daily. April 4th, four fresh pigs were inoculated, two with the milk of each cow. Cow No. 156 died June 5th, with extensive generalized tuberculosis. The udder was carefully examined, but no tuberculous deposits could be detected. The four guinea pigs were killed after a period ranging from one and one-half to four months after inoculation, but no trace of tuberculosis could be seen in any of them. Cow No. 155 died June 24th. The tuberculosis changes were equally advanced, the udder intact. The four guinea pigs inoculated with milk from this animal were also free from tuberculosis. On June 22d, two days before the death of this cow, two guinea pigs were inoculated with the milk, which had by this time nearly given out. Both guinea pigs were killed Oct 10th. In one of these, tuberculosis was present, but in a slight degree only. The animal had grown fat and had failed to show the disease during life. The two pigs which had received the milk daily were killed, but no tuberculosis lesions detected."

It thus appears that two pigs were fed on milk from consumptive cows for a period of about seven months, without any ill effects. The only case of injury was to one of the guinea pigs, in a very slight degree, inoculated some days before the death of one of the cows, when the secretion of milk had almost ceased; a few tubercle bacilli were present in this milk. The cow from which this milk was obtained, at the time was probably in such an emaciated condition that no conscientious dairyman would ever think of using milk from a cow in such a state. The greatest, and almost the only danger, then, appears to be in the use of milk from an affected udder. But there is danger also in not knowing when the udder is affected, which will almost always be the case long before there is a visible enlargement of the milk vessels. So insidious in its nature is the disease that the cow is often very far gone before the owner suspects that there is anything wrong.

Cows that are fed on stimulating, or unwholesome food are most liable to be attacked. The system of forcing, as it were, cows to give larger quantities of milk than they are by nature and constitution adapted for, has a tendency to weaken the natural disease-resisting powers, consequently herds so treated are most likely to have the largest percentage of prematurely worn-out cows, and such as are most liable to succumb to contagious diseases of any kind. Consumption is now generally considered as coming under that head, consequently every dairyman who is alive to his own interests will see it to be his duty to get rid of all suspicious cows immediately upon the first indications of disease. To do so will inure to his own benefit. There is no known cure for the disease. It was at one time hoped that the effect of the Koch lymph, or tuberculin would be curative, but we believe experience does not confirm it as a fact. However, as a test for tuberculosis it is likely to prove valuable.

The great difficulty has heretofore been in diagnosing the disease and detecting it in its early stages. There is now practical evidence to show that the use of "tuberculin" may overcome that difficulty. Bulletin No. 21 Pennsylvania Agricultural Experiment Station, by Dr. H. P. Armsby, affords proof of this.

Passing over the tests made at the station by Dr. Pear-

son of the University of Pennsylvania, which showed, by the Koch test, two of the cows, Gertrude and Carmina, to be affected, we give the report of the test by physical examination as compared with the Koch test:

At this point Hon. Thomas J. Edge, Secretary of the State Board of Agriculture, suggested that the opportunity be utilized to make a comparison between this new method for the detection of the disease and the older and more common method by physical examination, and offered for this purpose the services of the veterinarian of the board, Dr. F. Bridge of Philadelphia. In view of the interest attaching to the subject this offer was gladly embraced, and Dr. Bridge accordingly came to the station on July 29, and, without previous knowledge of which animals were indicated by the Koch test as tuberculous, made a careful examination of the herd. Two cows—Lavender and Carmina—were pronounced tuberculous, and two others—Cowslip and Rosella—as very probably so, and it was recommended that all four be slaughtered. All the other animals of the herd were pronounced free from tuberculosis.

The following comparison shows the results of the two methods of examination:

Name of Cow.	*Koch Test.*	*Physical Examination.*
Carmina,	Tuberculous,	Tuberculous.
Gertrude,	Tuberculous,	Not tuberculous.
Lavender,	Not tuberculous,	Tuberculous.
Cowslip	Not tuberculous,	Probably tuberculous.
Rosella,	Not tuberculous,	Probably tuberculous.

It will be seen that the two methods agreed in only one case out of the five.

All five animals were slaughtered on the afternoon of the same day, the post-mortem examinations being conducted by Drs. Bridge and Pearson with the following results:

"*Carmina.*"—Bronchial glands of the left side as large as walnuts, cheesy and calcareous. On middle lobe of right lung a tubercular abscess the size of a walnut and several tubercules the size of small peas were found; a well-developed case of tuberculosis.

"*Gertrude.*"—Bronchial glands of right lung as large as hickory nuts and containing cheesy deposits. Tubercular mass the size of a hickory nut found in upper end of posterior portion of right lung; hepatized area 3x2 inches on top of posterior lobe of right lung and containing cheesy abscesses or tubercules from the size of a pea to the size of hickory nuts. Numerous tubercules the size of a pea, surrounded by thick, fibrous capsules, cheesy at the center and surrounded by red zones, found scattered through the omentum; a well-developed and clear case of tuberculosis.

"*Lavender.*"—Has severe bronchitis of right lung; also pleurisy; great thickening of the pleura; fibrous masses attached to the costal pleura; no tuberculosis.

"*Cowslip.*"—Severe acute bronchitis in anterior lobe of right lung; no tuberculosis.

"*Rosella.*"—Bronchitis and pneumonia; no tuberculosis.

In brief it was found:

1. That both animals which gave a temperature reaction with the Koch test were tuberculous.

2. That no one of the animals slaughtered which failed to give such a reaction was tuberculous.

3. That all the non-tuberculosis animals slaughtered had some lung lesion which deceived an experienced veterinarian into the belief that they were tuberculous.

The results of the test are strongly confirmatory of the value of the Koch test as a means of diagnosis.

From the above it will be seen that diagnosing tuberculosis by the Koch test is reliable when in scientific hands. It is, however, to a certain extent in the experimental stage. Should future experiments agree in proving it to be a sure test, there is no reason why the disease should not be completely held in check, if not stamped out, whenever a law has been passed declaring it to be a contagious disease to be treated as for instance pleuro pneumonia has been.

THE DAIRY.

A Model Dairy Ranch.

A writer in the *Sutter County Farmer* visited, and thus describes, the model dairy ranch of Mr. Lafranchi, two miles east of Sebastopol:

The buildings are far better than the average, and consist of a good dwelling-house, near it a new kitchen and dining-room, every window of which has wire fly-screens. The granary and wagon-house are conveniently divided, and the very large barn is also very carefully planned in this respect. Even the feeding-sheds for the calves are kept in good repair. The milk and butter-houses are located in the shade of two large trees between the house and the barn, and being located on the highest ground and in the shade, are very cool in the summer. The west part of the ranch, like a great portion of the soil in the Sebastopol vicinity, is a light, sandy loam, while the eastern portion is a heavier loam and adobe. Hay is the main crop, very little grain, if any, being grown. For hay he seeds with black oats and thinks there is as much money in hay, take it one year after another, as in grain, with much less trouble.

Now we come to the part in which we were most interested. We were first shown the dairy, which will number 74 cows the coming season. Among the fresh cows we were surprised to find no full-blood stock, and when asked in regard to it, Mr. Lafranchi said he "selected for milk and not for blood." We examined nearly every cow and found every sign of good milkers. The cows were in good condition and easy to milk. Instead of leaving them out to suffer from the storms, they are kept in the barn, where a bountiful supply of good hay is before them. Here is where the maxim, "Feed your cows if you expect them to feed you," is fully demonstrated.

Mr. Lafranchi says if he were going to select blooded stock for milking qualities he would, from his experience, prefer the Jersey and Durham cross, and we find him not alone in this selection.

When asked if he could make money in the dairying business, Mr. Lafranchi said he was doing very well in the business and is satisfied with it.

Our next visit was to the butter-making department—first the milkroom. Here we found a large, clean room, on one side of which were the milk-racks, constructed as follows: A board of suitable width is placed at each end and others at every few feet the entire length of the rack. Into the edges of these pieces (which are placed on end) are set narrow strips on which the pans rest, thus giving the air a chance to reach the most possible surface of the pans. This plan is the one adopted both West and East, and has been found preferable where the cream is raised in pans.

The milk is strained into a large, galvanized iron tank, and from there, by means of a faucet, is drawn off into the pans. By this method, all specks are kept out of the milk, which method has a decided advantage over the practice of straining into the pans direct from the pail in which the milking was done, as it is impossible in this way to avoid specks of dirt getting into the milk, which is always detrimental to fine-flavored butter. A stove in the room keeps the temperature even, and from experiments, Mr. Lafranchi has found he gets the most cream from his milk with the temperature at about 60 or 61 degrees, by an accurate thermometer which hangs in the milkroom, which room is devoted to milk only.

Adjoining the milkroom is the butter department. In this room is the 60-gallon Petaluma churn, manufactured by the Petaluma planing-mill. It is simply an oblong box hung on centers at the ends, which is revolved by horse-power, and the falling of the cream produces the butter. There are no breakers inside. A churn of this kind requires careful attention, as, it being square, more care to cleanse the corners thoroughly must be observed. After washing and scalding the churn, Mr. Lafranchi again rinses it in briny water, thus insuring sweetness. He says 15 minutes is the usual time required to churn the cream into butter.

The butter is washed in the churn and salted with the best Liverpool salt, which is sifted before being put into the butter, thereby not only freeing the salt from any dirt, but also keeping out lumps which too often are found in even well-known brands of butter. Mr. Lafranchi has an abundance of pure water to use in his butter-making, and so careful is he in this respect that only galvanized iron pipes are laid for conducting water used in the butter-making process.

Passing into a third room, we found ourselves in the storeroom, which is quite empty now. Mr. Lafranchi ships no butter, he finding a ready sale for it in Santa Rosa, selling mostly to the stores and hotels, and supplying a few private parties who have been his customers for years. The buttermilk and skimmilk is fed to the calves and hogs and thus utilized to good advantage. He expects to keep 50 hogs of the Poland China breed this summer, and says he is satisfied they are the most profitable hogs a farmer can raise.

Creamery Interests.

The following paper on the "Creamery Interests of Southern California" was read at the late meeting of the Santa Ana Farmers' Institute by C. H. Sessions, of Los Angeles, proprietor of the Lynwood dairy:

LADIES AND GENTLEMEN: The creamery in the East has become a permanent institution. Farms that had been almost ruined by continual grain growing, and with large mortgages staring their owners in the face, have been redeemed by dairying. Statistics prove that the number of farm mortgages in creamery districts are gradually being reduced.

The creamery industry in Southern California is still quite young, but lately the business has taken a start, which shows that it is becoming popular. In this end of the State I think there are five regular public creameries, and as many large dairies fitted up as creameries, that buy milk from farmers near by. The most of those doing business are located in the neighborhood of Santa Ana and Compton. With your natural advantages of feed and artesian water, this is one of the best dairy regions in Southern California.

Where a section is so far from the city that there is no demand for milk or hay, the creamery is the best means of profitably utilizing these products.

A creamery to be successful should be located in a good dairy section where there are cows enough to furnish a large quantity of milk regularly throughout the year.

One or two men with the improved machinery can handle a large quantity of milk as cheaply as a small quantity, so far as the labor goes, while the extra expense of fuel after the separator is once started is comparatively small. When the milk is handled in a small way by the women of the farm with the crude appliances found on most farms there is a great deal of labor connected with it, such as the setting of the milk, the skimming, the hand churning, the hand working, concluding only with the washing of the pans and other utensils.

There is often not cream enough to churn every day, and when several days messes are mixed, some of it is too ripe and some not ripe enough, and consequently the butter cannot be uniform in quality.

The butter from, say a dozen farms, goes to the country merchant who fills a case with the rolls, some being thick and short while others are long and narrow, weighing from 26 to 32 ounces each, and varying in color, and some of it having been kept too long waiting for shipment to the city. I have seen such cases opened and you can imagine how they look. It cannot be sold to fine trade at a good price, but must be jobbed off to a hotel or restaurant for cooking purposes at any price it will bring, which is usually pretty low, and the farmer suffers accordingly.

On the other hand, where the farmers take their milk to the creameries it relieves the women of this great amount of work, with its discouraging returns. The cream is separated by machinery at the rate of 2000 pounds or more of milk per hour, properly ripened, and then brought to the required temperature before churning.

The cream being uniform the amount of color and salt is always the same, the butter is not overworked to spoil the grain, and when the cases are opened in the city the buyer finds the contents the same, one shipment after another, and when the consumer calls for a certain brand he knows exactly what he will get.

On account of this uniformity, creamery butter in all markets is quoted higher than dairy, therefore the dividends paid by the creamery will be equal to, if not greater than those received by the farmer, and save the women folks all the hard work.

The creamery cannot make a fine quality of butter unless the farmer is as careful in producing the milk as the creamery man is in making the butter.

The cows should be fed on good, wholesome feed. While a little green feed is good, there should be some hay fed to prevent a soft and salvy butter. The best butter-maker cannot make good butter from milk tainted by feed, water stable odors from careless milking, buckets and cans rinsed out, instead of being thoroughly washed and aired in the sun.

The creamery on my own place is equipped with everything necessary for handling several thousand pounds of milk daily, but at present my principal business is selling milk in the city.

After filling the milk orders, I separate the balance of the milk, sending such cream as is ordered to the city, and the balance is made into butter.

In addition to the milk produced by my own dairy, I am buying all I can from the farmers in the vicinity.

It was formerly the rule to buy milk by weight, paying everyone the same price regardless of quality, which was placing a premium on poor milk, made so by cows giving a large quantity of low-grade milk, or by smuggling in a little water, and discouraging those farmers who delighted in keeping Jersey or other cows giving a high-grade milk.

Lately the Eastern creameries have been paying for milk according to the butter value, as found by Dr. Babcock's simple test, and it has been very successful.

A breeder of Guernseys wrote me a short time ago that since the creameries had begun paying according to the butter value there had been an increased demand for butter-making breeds, showing that the farmer will keep better stock if he can get more for milk.

For several months I have been paying by the Babcock test, and it may be interesting to you to know how the quality of milk varies.

For May the tests run from 3.2 to 3.9 per cent butter fat; June, 3.3 to 4; July, 3.6 to 4.1; August, 3.6 to 4.2; September, 3.6 to 4.2; October, 3.6 to 4.3.

In conclusion, let me say to the ladies, ask your husbands to arrange with the nearest creamery to take your milk; it will save you much hard work and give you more time for your other household duties.

And now to the gentlemen. You have on your farms all the latest labor-saving machinery for working the farm, but you have done little or nothing to save your wife's work. Begin as soon as possible to carry your milk to the creamery, the greatest labor-saving machine the women have, and you will find the returns greater than when made up at home.

During the summer you can take your wife to the seashore or mountains for a vacation, while the boys stay at home and carry the milk to the creamery, which you cannot do if your wife makes the butter. Try it and see if it is not a success.

Dairy Results in California.

A. N. H. of Humboldt, Cal., writes to *Hoard's Dairyman* as to dairy results in California:

"I have been a constant reader of *Hoard's Dairyman* for four years, and would not think of doing a dairy business without it. I have a small farm of 40 acres, and keep 40 head of live stock the year round. Twenty-eight of them are milch cows. Have milked 24 steadily since April; five are heifers. Our creamery started April 6th. From that date until October 31, I sold 116,420 pounds of milk, for which I received $1153. I don't think that was bad for a beginning. I am now getting 400 pounds of milk per day from 20 cows, and am feeding a grain ration of bran, corn and oats; two-thirds corn and one-third bran and oats; 10 pounds per cow, fed twice daily, and all the clover-hay they can eat. Bran costs $17 per ton; cornmeal $28, and oats $28. I use the Babcock test and am well satisfied, for I have sent five cows to the butcher.

"I did not intend to tell what I had done, but rather to ask advice. I have lost three of my best cows from milk fever in the last four years. All are taken alike shortly after calving, get down and never get up. I lost one last week, taken in the morning and died at noon. I gave 20 drops of tincture of aconite every two hours, bled her in the jugular vein, and also bled her in each milk vein, taking two gallons of blood. Did I do right? Please tell me how to prevent it. Should I milk a big milker before calving? Should I feed a cow that is fat, grain before she calves?"

To this the *Dairyman* adds the following:

"Answering A. N. H. we can say that we know of no cure for milk fever which can be relied on. At times all remedies fail, and at other, cows recover without remedies. It is a dread disease. The best advice we can give is to take especial care with other cows and put them on a relaxing diet two weeks before calving. Get the bowels well emptied out. The last week give the cow a box stall by herself, if possible. Keep her perfectly quiet and free from all nervous excitement. Milk fever is essentially a nervous disease. Avoid cold water and cold-air drafts for four days after calving. Keep the bedding dry and look out for anything that will promote a chill. Leave the calf by her side. It will quiet her, and do not milk the udder out clean the first four days. After that time danger is not usually to be expected. We never heard of bleeding the cow in the milk veins. Am afraid your treatment was too heroic."

POULTRY YARD.

Poultry Notes.

The difference between an egg laid by a plump, healthy hen, fed with good, fresh feed daily, and an egg laid by a thin, poorly-fed hen is as great as the difference between good beef and poor. A fowl fed on garbage and weak slop, with very little grain of any kind, may lay eggs, to be sure; but when those eggs are broken to be used for cake, they will spread in a weak, watery way over your disb, look a milky white instead of having a rich, slightly yellow tinge. A "rich egg' retains its shape and yields to the beating of the knife with more resistance and gives you the conviction that you are really beating something thicker than water.—Rural World.

The *Rural New Yorker* tells of Miss Lucy Tucker, a Rhode Island girl, 15 years old, who has raised 400 turkeys this year from 35 hens and two gobblers. Her fowls are fattened and dressed so well that the dealer pays her extra prices for them, so that her average return for them is $3 each. Her expenses are about $300, the rest profit. The young turkeys are fed three times a day on Rhode Island cornmeal mixed with sour milk until two months old, then twice a day until about three months old, then whole corn until fattened. The hens make their nests at a distance from the house by the side of stone walls and in clumps of bushes in all parts of the farm, which comprises 380 acres.

It is reported that a lady near Newport, R. I., raised and sold 230 goslings from seven geese. Mr. Wm. Rankin, in the *American Agriculturist*, tells of having one pair three years ago, and the goose laid 51 eggs. He hatched out 38 goslings and reared 35, which he fattened, killed and shipped, receiving a return of $81.47, or about $2.32 each. He got 25 cents a pound for his first shipment, 22 cents for the next lot and 18 cents for the rest. If the Newport lady obtained as good prices, it was a snug little income.

If the poultry-keeper would keep an exact account of all the eggs and poultry used and sold, and an account of the food given, he would soon find out that it pays to keep them. But the money for eggs comes in by pennies and the grain money goes out by dollars, which often makes it look the larger.

The Value of Hens.

The following very sensible and timely remarks are from the Oroville *Register:*

Farmers complain of hard times and lack of money, yet they permit the people of San Francisco to send nearly $100,000 out of the State in a short time to purchase Eastern eggs. The Californian has for so many years obtained big prices for his products and been in a position to buy what he pleased, that he cannot yet bring himself down to the little things such as eggs and poultry, milk and butter, "garden truck" and the growing of berries to help out farm expenses. A little figuring may prove an eye-opener to some. It costs as much to keep one cow as it does 100 hens, yet the cow will not return one-half the profits in the same time that the hens will. If a farmer will take the the same trouble with his poultry that he does with his cows, pigs and sheep, he will find the fowls will pay better than any live stock on the ranch. It's the neglect of hens that makes them at times appear unprofitable, but the cow that is dry is well taken care of, and the hen that does not lay for a few weeks should be fed just as well as though she were returning to her owner good interest on her value every day in the week. Look well to your poultry, keep the hen-houses clean, see that the hens have plenty of the right kind of food, get the best breeds, study up what the best poultry-raisers say, buy the best poultry journals and read them with care, and in a few months you will find that your hens are helping you to cut down expenses and to pay your bills.

To Make Hens Lay.

The *Ohio Farmer* has the following: Put two or more quarts of water into a kettle and one large seed pepper or two small ones; then put the kettle over the fire. When the water boils, stir in coarse Indian meal until you have a thick mush. Let it cook an hour or so; feed hot. Horse-radish may be chopped fine and stirred into mush as prepared in the above directions, with the result that we are getting from five to ten eggs per day, whereas, previous to feeding, we had not had eggs for a long time. We heard a good deal of complaint from other people about not getting eggs. To such we would warmly recommend cooked feed fed hot. Boiled apple skins seasoned with red pepper, or boiled potatoes seasoned with horse-radish, are good for feed; much better than uncooked food. Corn, when fed to hens by itself, has a tendency to fatten rather than produce the more profitable egg-laying.

A spoonful of sulphur stirred with their feed occasionally will rid them of vermin and tone up their systems.

Fattening Chickens.

Old fowls may get very fat while running at large, but chickens not fully mature must be closely confined and bountifully fed with meal in order to wax fat.

It is well to wet the meal with boiling water and feed it warm. Two parts corn to one part oats, ground together and mixed with milk fattens chickens. This feed cannot be excelled.

A suitable coop should be provided, the bottom made of bars and raised high enough to permit scattering dry earth under or clearing away the excrements. Every precaution should be taken to avoid a filthy condition. The top and two of the sides may be also made of bars, thus giving free circulation of air, and affording means of making the room smaller by putting in a cross partition between the bars, making the size right to accommodate a small number of chickens. There should be just as many chickens in a coop as may stand or roost; not as crowded as a centennial horse-car, but full. On the two sides made of bars, one opposite the other, troughs should be arranged for feeding on the outside.

In cooping chickens for fattening, they should be assorted, putting those of like condition together. Some may become fat in two weeks; others must be fed longer. When they are fat they should be slaughtered, not kept along as you might keep pigs. When you get the chickens to the right condition they may be called ripe, and further feeding is mostly loss.

THE VINEYARD.

Resistant Vines a Success.

Writing of resistant vines, A. H. Grassman, of Mountain View, says in the Napa *Register:*

Resistant vines are a success, providing the work is done in a practical manner with the best variety which resists. After experimenting with many varieties since 1877, I have found the Vitis Riparia the best. The Vitis Rupestria is also resistant. The Lenoir will do in some soils, but it is not resistant, but it will hold out longer than any other resistant vine which I have experimented with except the Riparia and Rupestus. I prefer the Riparia above all others, because it is the most resistant and easier to propagate. It will grow in most any soil and take the graft readily, providing the grafting is done in a practical manner. I will give a few points in regard to the work, though it is impossible to write of the best way it should be done. It takes a great deal of experiment to do it correctly. First, the Riparia cutting is the best from the stock and not from suckers. The best method I have found is to propagate the cuttings in the nursery and then a year or two after to plant them out in the vineyard. Cuttings planted directly in the vineyard are not as good as one or two-year old rooted vines.

I have found that it is best to graft after growing in the vineyard two or three years. They have then more and stronger roots, and the grafts grow more vigorous. Some vineyardists graft after one year growing in the vineyard, but they are not as much of a success as if they were left to grow two or three years in the vineyard.

The best time to graft is in March and April, but only in dry weather. Grafting in wet soil is not advisable. As to grafting, this could be only done by being with the grafter and showing him, providing he has got patience and is willing to learn. Everything must be looked after correctly. The grafts must be well prepared and well taken care of till grafting time. The cultivation between the grafts must be only done by an experienced hand. The best way to prepare the scions is to cut them about the middle of January. The nearer the buds are together the better, but be sure they are not from suckers. Put them in sand in the cellar. The best time to cut off the roots from the grafts is in the fall. They should be suckered the first season. They should not be touched till the fall.

Some have adopted the method of cutting off the roots from the grafts in the spring, but I have found it not good. They bleed too much in the spring and the vine is too much disturbed.

One thing I must say: I have examined several resistant vineyards, as well as my own, in Napa county and Sonoma county. I found that some grafted vines did not grow as healthy as others. I soon found out by examination that the grafting was done very poorly. I simply say this: Before any one undertakes to have a resistant vineyard, he should do it practically and not cry afterward it is not a success.

If one wants to give resistant vines a fair test, let him plant a Riparia-rooted vine close to the phylloxera-infected vine. The result will be the sick vine will gradally die and the Riparia vine will grow flourishing.

Stock Notes.

A first-class animal of any kind can always find a market.

Smooth beef will bring better prices than rough, coarse cattle.

By having early-maturing cattle the output may be readily increased.

With cattle, it is the steady, continuous growth that pays nowadays.

There is certainly no profit in keeping cattle and half starving them.

Put your money and feed into young, thrifty cattle rather than old ones.

A safe rule is always to stick to the breed that you have done well with.

There is no advantage in feeding for excessive weight with fattening steers.

Good breeding, aided by good feeding, is necessary for securing early maturity.

Another important item in successful feeding is to supply the right kind of food.

Lower prices for beef cattle should always be a spur toward keeping improved stock.

The lack of system in feeding is the cause of more injury to stock than contagious diseases.

Never keep roughness before the cattle all of the time; feed what they will eat up clean.

Many farmers keep cows that the only return they give is the value of the calf at weaning time.

ARCHITECT Page Brown has submitted to the State Harbor Commissioners further plans for the new depot building at the foot of Market street, and in a few days the board will settle definitely on a general plan.

TRACK AND FARM.

The Great Hobart Sale.

The great sale in New York of the California Hobart stud lasted two days and netted $216,410 for 74 horses, Stamboul going for $41,000. The result was something of a disappointment, as higher prices were expected. The best sales were:

Stamboul, 2:07½, 1882, b. s., by Sultan-Fleetwing, by Hambletonian; sold to E. H. Harriman, New York city, $41,000.

Nancy Lee, blk., 14, by Dictator-Sophy, by Edwin Forrest; sold to A. H. Moore, Cloverdale Stock Farm, Pa., $7500.

Nancy S., b. f., 1, by Stamboul-Nancy Lee, by Dictator; sold to George Scattergood, Philadelphia, $2800.

Leda S., b. f., weanling, by Stamboul-Nancy Lee, by Dictator; sold to F. P. Clark, New Haven, Conn., $1700.

Naval, b. m., by Dictator-Belle Branfield, by Cripple; sold to Dr. G. H. Bailey, Portland, Me., $1425.

Oasaka, b. f., weanling, by Stamboul-Nava, by Dictator; sold to J. H. Schultz, Brooklyn, $1200.

Astrione, blk. m., 9, by Alcyone-Jesse Pepper, by Mambrino Chief; sold to H. S. Henry, Morrisville, $5300.

Demars, b. c., by Stamboul-Astrione, by Alcyone; sold to F. D. Creamer, Brooklyn, $1800.

Ora Bella, b. f., weanling, by Stamboul-Astrione; sold to George Jacobs, New York, $1200.

Silverone, 2:19¾, b. m., 10, by Astrione-Silverlock, by Mambrino Prince; sold to B. Thayer, Boston, $6000.

Silverbowl, b. c., 1, by Stamboul-Silverone; sold to H. E. Sohns, New York, $3400.

Albuta, b. c., weanling, by Stamboul-Silverone; sold to James Golden, Boston, $1500.

Eugenia, 2:19¼, pacing, blk. m., 7, by Alcantara-Lady Conkling, by Strathmore; sold to L. J. Phillips, Mass., $1300.

Madras, b. c., 12, by Alcazar-Eugenia; sold to Geo. L. Benus, New York, $1000.

Adolph S., b. c., weanling, by Stamboul-Eugenia; sold to John L. Roper, Norfolk $710.

Alta Belle, br. m., 11, by Electioneer-Beautiful Bells, by the Moor. Belle Electra, b. m., 4, by Piedmont-Alta Belle, by Electioneer; sold to J. B Dutcher, Pawling, N. Y., $3300.

Peralta, b. c., weanling, by Stamboul-Belle Electra; sold to A. B. Forbes, Springfield, $1600.

Kittie Wilkes, b. m., by George Wilkes-Snipnose, by American Clay; sold to A. J. Welch, Hartford, $552.

Etta, b. f., by Stamboul-Kitty Wilkes; sold to Uhlein Bros., Milwaukee, $1500.

Meta Rose, b. f., 1, by Stamboul-Kitty Wilkes; sold to P. C. Eastman, city, $2100.

George Norval, b. c., 3, by Norval-Wilkes; sold to G. J. Harley, Greatneck, L. I., $1100.

Ardea, blk. f., weanling, by Electricity-Kitty Wilkes; sold to S. Hyde, Fall River, $650.

Kitty Sultan, blk. m., 5, by Sultan-Kitty Wilkes; sold to G. O. Wilson, Baltimore, $550.

Alta Vela, b. f., 1, by Palo Alto-Kitty Sultan; sold to Henry Pierce, San Francisco, $1525.

Al Maden, ch. c., weanling, by Palo Alto-Kitty Sultan; sold to Dr. F. L. Gerald, Laconia, N. H., $1025.

Prospect Maid, 2:23¾, br. m., 18 by George Wilkes-Neilson, by Mambrino Pilot; sold to Chas. Robinson, city, $1075.

Anheuser, b. c., weanling, by Stamboul-Prospect Maid; sold to E. C. Boardman, city, $1700.

Trinket, 2:14, b. m., 17, by Princeps-Ouida, by Hambletonian; sold to Charles Robinson, city, $2300.

My Trinket, b. f., 2, by Stamboul-Trinket; sold to J. H. Schultz, Parkville Farm, $4000.

Queen, b. m., 15, by Hambletonian-Charlotte Hambleton, by Rysdyks Hambletonian; sold to C. R. Maltby, Plainfield, N. J., $525.

Vinita, b. m., 3, by Stamboul-Queen; sold to Robert Steel, Philadelphia, $900.

Mozart Bee, 1, by Stamboul-Modjeska, by Enfield; sold to J. H. Schultz, $2000.

Anikine, b. f., weanling, by Stamboul-Modjeska; sold to E. P. Harriman, New York city, $950.

Wintona, b. m., 3, by Winton-Ball, by Homer; sold to E. K. Trimble, Macon, Ga., $1050.

Ellora, b. f., weanling, by Stamboul-Wintona; sold to H. R. P. Weston, West Farms, N. Y., $850.

Four Corners, 2:20¼, ch. m., 12, by Mambrino-Laura Winn, by Abdallah; sold to E. A. Morris, Stockbridge, Mass., $250.

Corner Belle, b. m., 2, by Bell Boy-Four Corners; sold to J. B. Dutcher & Son, Pawling, N. Y., $3075.

Orme, b. c., weanling, by Stamboul-Four Corners; sold to E. P. Harriman, $700.

Carlotta Wilkes, b. m., 4, by Charley Wilkes-Aspasia, by Alcantara; sold to Henry Pierce, San Francisco, $825.

Kophta, blk. f., 2, by Simmons-Jessamine, by Mambrino Boy; sold to J. H. Ruppert, Hudson County Stock Farm, Poughkeepsie, N. Y., $3600.

Barebin, b. c., 1, by Stamboul-Jessamine; sold to T. R. Proctor, Utica, N. Y., $1500.

Mabel W., b. m., 4, by Nephew-Lizzie H., by Whipple's Hambletonian; sold to J. H. Walker, Worcester, Mass., $700.

Glenview Belle, 2:20¾, b. m., 1886, by Nutwood-Melrose, by Geo. Wilkes; sold to Bayard Thayer, Boston, Mass., $6600.

Trousseau, 2:28½, ch. m., 1878, by Nutwood; sold to J. H. Outhwaite, San Francisco, $3100.

Dainty Belle, b. f., 1890, by Bell Boy-Trousseau; sold to Charles D. Robinson, New York, $4200.

La Honda, b. f., 1892, by Red Wilkes-Trousseau; sold to J. H. Outhwaite, $2800.

By-By, b. m., 1885, by Nutwood-Rapidan, by Dictator; sold to Henry Pierce, San Francisco, $10,000.

Nola, ch. m., 1886, by Nutwood-Belle Byron, by Claus Almont; sold to Henry Pierce, $2600.

Alma Mater, ch. m., 1872, by Herr's Mambrino Patchen Estelle (thoroughbred), by Imp. Australian; sold to Henry Pierce, $4100.

Alamboul, b. c. 1892, by Stamboul-Alma Mater; sold to A. N. Kingsley, Ashulst, N. H., $3975.

Alma filly, b. f., 1891, by Stamboul-Alma Mater; sold to J. B. Dutcher & Sons, Pawling, N. Y., $4100.

Almata, 2:32¾, ch. m., 1879, by Almont-Alma Mater; sold to Wm. Simpson, New York city, $4800.

Alameda, ch. f., 1892, by Baron Wilkes Almata, by Almont; sold to J. H. Schultz, Parkville Farm, $5000.

Bonbon, 2:26, b. m., 1885, by Simmons-Bonnie Wilkes, by George Wilkes; sold to Henry Pierce, $7000.

De Oro, b. c., 1890, by Stamboul-Bonbon; sold to H. B. Beach, Meriden, Conn., $2600.

Stamboul, b. c., 1891, by Stamboul Bonbon; sold to E Platt, New York city, $2200.

La Bonton, br. f., 1892, by Stamboul-Bonbon; sold to Uhlein Bros., Milwaukee, Wis., $2600.

Biscara, b. m., 1887, by Director-Bicara, by Harold; sold to Henry Pierce, $8250.

Redowa, br. f., 1889, by Red Wilkes Patchen Girl, by Herr's Mambrino Patchen; sold to J. Malcolm Forbes, Boston, $3000.

THE HOME CIRCLE.

The New Year Minuet.

It was danced in the hall by the fire's red glow,
For the palms hid the lamps at the side,
And each form was outlined in the floor below,
While the shadows were spread far and wide.
But the shadows were misty—a softened gray—
In accord with the slow melody.
The light of the fire drove the dark lines away,
While it lent all a sweet mystery.

Both dancers were courtly and figures of grace,
Yet the maid held my fancy alone;
The glow gave a blush to her beautiful face;
In her dark eyes a fairer light shone.
And then, as she curtsied, so stately, so slow,
With the grace of an age that is past.
It seemed like a dream of the long, long ago—
Like a dream that I knew could not last.

So stately, so slow, was each step that she made,
And so graceful the head that she bent:
The old-fashioned fan, that at times cast a shade,
Such an air of true elegance lent.
The place of the dance gave a place to my thought,
And I dreamed of the days that are dead;
The spell of the dance was by sorcery wrought,
And the hurrying modern days fled.

It was peace—the sweet rest of the olden day
When all idols were not overthrown;
When romance still lived, and as king, Love held sway,
Before Mammon to ruler had grown.
And all those who watched were bewitched by the dance,
And they dreamed till the measure was o'er—
To-day was forgot in the short backward glance
And the charms of the day gone before.

FLAVEL SCOTT MINES in the *Ladies' Home Journal.*

The New "Idee."

The "institoot" folks have been up here and turned things upside down,
Preaching up such new-fangled things they've nearly crazed the town—
Analysis and chemicals and lots of other trash,
As how we'd got to learn by heart and they'd fetch us in the cash;
'N lots of other things they told ez they styled the new "idee,"
But I hain't no larnin', there's the stick, 'n' of course it ain't for me.

They told us to make siloes, en how the things were made;
How to improve our cattle, both thoroughbred and grade;
All other kinds were scrubs, they said, an' didn't pay their salt,
'N' many other queer notions in their new idee.
But of course, I haven't larnin' and so it ain't for me.

They talked about leguminous plants that partly fed on air,
'N' how if we raised 'm to plow in, we'd have home manure to spare,
They said as how there's potash growing in the hay,
'N' ammonia in the manure pile, 'n' its flying all away.
The greatest lot of notions they had in their new "idee,"
But of course I didn't have larnin', and so it ain't for me.

Nitrogen, carbobyates, albuminoids en sich
You'd got to buy or beg or steal, or you never could get rich;
Feed carbondrates to the critters—now what do you think of that?
Put thingumbobs in the milk to find the butter fat;
I tell you what, it beat the world, these feller's new idee,
But not being a college chap myself, of course it ain't for me.

—Country Gentleman.

The World.

The world is well lost when the world is wrong,
No matter how men deride you;
For if you are patient and firm and strong
You will find in time (though the time be long)
That the world wheels 'round beside you.

If you dare to sail first o'er a new thought track,
For awhile it will scourge and score you;
Then, coming abreast with a skillful tack,
It will clasp your hand and slap your back,
And vow it was there before you.

Aye, many an error the old world makes,
And many a sleepy blunder;
But ever and always at last it wakes,
With pitiless scorn for another's mistakes,
And the fools who have followed go under.

The world means well, though it wander and stray
From the straight, short cut to duty;
So go ahead in that path, I say,
For after awhile it will come your way,
Bringing its pleasure and beauty.

—ELLA WHEELER WILCOX.

NO MATTER WHAT YOUR YEARS.—My advice to all is: Lay out your plans for a prolonged lifetime, while you are particular to be prepared to go at any time the Lord may call. Some of the best work the world has ever seen was done after the time when most people think they must stop. Izaak Walton wrote some of his best biographies after he was 85. Christopher Wren kept on with architecture until he was 86. Cato learned the Greek language at 80. Hobbes, at 87 years of age, translated the "Iliad." Fontenelle wrote vigorously at 99 years Monaldesco penned the history of his time at 115 years of age.—Talmage.

It Was Due to the Track.

They were talking about horses and more particularly about Nancy Hanks' wonderful record or 2:04. Every one seemed to be more or less impressed with the marvelousness of this record except old Mr. Scaggs, a retired farmer. "She's fast, yes," he said, "but I once owned a mare up on the farm as could beat her. That mare was lightning on legs. Polly was her name—named after Mrs. Scaggs' mother, and a finer woman you never met. She could bake all around any other woman in the country, an' when it came to me bein' sick she'd nurse me tenderlier than as if I wasn't a son-in-law at all, but her own boy. My, how she could trot!"

"Your mother-in law?"

"No, the hoss," snapped Scaggs, with fire in his eye. "I'm talking about the hoss. I bought her when she was eight years old from old Mrs. Tompkins. She wasn't much on looks, Mrs. Tompkins wasn't but she was business all through. When her husband died she took charge of the grocery an' added a millinery department to it, 'nd by Jove! inside of a year she was able to close up the grocery 'nd do nothin' but make hats. Tompkins used to hitch her up to the delivery wagon, you know, but of course—"

"You don't mean to say that any man was ever mean enough to hitch his wife up to a grocery wagon and make her haul the packages about town?" queried the inquisitive member of the party.

"Ain't said nothin' o' the kind," retorted Scaggs. "Don't you get too funny. I'm talkin' about the hoss. I was goin' on to tell ye how when old Mrs. Tompkins got makin' $2 hats for the women folks and sellin' 'em to 'em for $10 she gave up the grocery business, 'nd so didn t have any use for the hoss old Tompkins had used for drivin' his delivery wagon. It happened I wanted a hoss 'bout that time 'nd so I called on old Mrs. Tompkins to talk it over. She was only eight years old at the time and hadn't much style about her, though she was calculated to be faster'n anything else in town. I as't old Mrs. Tompkins what she'd take an' she says $24."

"That's pretty high for an eight-year-old," says I. "I'll give ye $1.50 a year for the hoss. That's $12."

"Make it two and she's yours," said old Mrs. Tompkins.

"Throw in a hat for my wife," says I, "'nd it goes."

"Done," says she.

"So I bridled her, paid the money, 'nd led her home. A few days later some o' the boys, knowin' as I had sportin' blood, came and ast me to to let Polly trot on the mile track for the record. My wife didn't want me to at first because she was a little off her feed 'nd didn't approve of racing anyhow, but when the boys offered a purse of $10 if she could beat 2:10 she let up. So I said all right, 'nd we set a date."

"Well, what was the result?" asked the inquisitive youth.

"Two-four for the mile," said Scaggs.

"Two-four?" cried the whole circle at once.

"Yep," said Scaggs. "But it was the track as helped her. There was somethin' in the track as had ought to be given some o' the credit, for the old mare couldn't beat morn' four minutes at the county fair grounds."

"What was the special quality of the track, Scaggs?" asked one of the party.

"Wall," said Scaggs, slowly, "as far as I could make out, a mile on our track warnt' more'n half a mile on any other."—Harper's Magazine.

CHURNING IN PALESTINE.—W. A. Croffut, a veteran newspaper man, has been taking a vacation to see the sights across the ocean, and thus writes about one incident: "One of the oddest things encountered in Palestine is a woman at the churn. The churn of this region was once animated, having been a goat in its better days. Now, the goat has vanished from it, flesh and bone for the table of the epicure, and the good wife hangs up to a spike on the ceiling his skin by the neck and pours into the uncanny vessel her wooden trays of milk. Then she churns by seizing the ghastly thing by the dropsical hind legs and swinging it half round her and back again in tiresome oscillation, as monotonous as any old wooden churn in a Yankee kitchen. When the butter "sets," she rests her weary arms and rejoices, and then she carefully unties the hind foot which has served for a handle, and draws out the buttermilk, afterward removing the butter by way of the slitted brisket. This seems to be the universal churn of the Orient. Whose milk is it? A goat's, probably. A sheep's, perhaps. A camel's, occasionally. I am tired of goat's cheese, sheep's milk and camel's butter, and when I get home shall hug the first cow I see.

A New Year's Wish.

At midnight on New Year's eve an old man stood at the window, and with eyes full of despondency looked up to an immovable, ever-blooming heaven, and out upon the still, pure, white earth, upon which no one was so unhappy, so sleepless, as he. His grave was near him, covered with the snow of age, no longer the green mantle of youth, and he brought out of his whole long life nought but erring, sinfulness and sickness, a wasted body, a desolate soul, a breast full of poison, an old age of sorrow, pain and repentance.

The sweet days of his youth come before him to-night as apparitions and carry him back again to that morning when his father set him upon the perilous highway of life, the ecliptic of virtue, on whose right lay the quiet land of light and harvest, blessed by the angels; on the left the mole-tracks of vice and crime led to the dark pit of dripping poison, darting serpents and black, stifling vapors.

Ah! the serpents hung at his breast, the poison drops were on his tongue ere he knew where he was.

Senseless, and with his unutterable grief, he called to heaven: "Give me my youth again! O father! set me again on life's road that I may choose the proper coutse!"

But his father and his youth were long passed from him. He saw the will-o'-the-wisps dancing and sinking in the God's-acre, and cried: "They are my misspent days!" He saw a star fall from the heavens, and his bleeding heart murmured, "It is I!" and the serpent's teeth sank deeper into the wounds they had made.

In his wild imagination he saw himself flying through the night air, over the roofs of the houses; an old windmill raised its long, gaunt arms as though to strike him down; a shroud in the deserted deadhouse took to itself form and shape.

In the midst of the conflict came suddenly the sound of New Year's music from a turret, like distant church-song, and he was gently moved. He glanced around the horizon and over the wide earth, and he thought of the friends of his youth, of those who were better and happier than he—teachers among men, fathers of happy children, blessed people—and he said, fervently: "O, I could, too, like you, slumber with dry eyes if I had but wanted! Ah, I could be happy, happy, dearest parents, had I heeded your New Year's wishes and advice!"

Again, in his feverish longing for the return of youth, came the vision of the shroud in the deadhouse. He saw the spirit of the new year enter it, and in his superstition saw it take his form—a child.

He could see no more. He lowered his eyes and the hot tears flowed. He moaned softly, disconsolately: "Return again, O, my youth again!"

And youth came to him again, for that night he had a wonderful dream. He was still a child; but his erring had been no dream, and he thanked God that he was not yet too old to reenter the ecliptic and choose the road that leads to the Land of Harvest. Talmage.

Her Horse Sense.

She was an independent sort of a girl, recently in possession of quite a fortune, and she concluded a horse was a necessity in her new establishment, so she sent for a dealer and had a talk with him. What she didn't know about horses would fill a livery stable, but she tried to make the dealer believe she was a judge and told him to bring her something to look at. The dealer came and she went out to pass judgment. She walked all around the animal, critically, as professionals do.

"Is he well trained?" she inquired with the air of a jockey.

"Certainly, miss," replied the dealer. She is well gaited and fine in harness."

"Um—um," said the girl, "is she all right in the botts?"

"Yes, miss," gasped the dealer, "but you see I've only got shoes on her fore feet."

He said that because, really, he didn't know what else to say.

The girl laughed merrily.

"I noticed that, but you couldn't very well have them on her five feet, could you?" she gurgled.

"I mean, miss," stammered the dealer, "that she is shod only on the fore feet."

"I understand," she said seriously, "but that can be cured without any difficulty, cant it?"

"Very easily indeed, miss," assented the dealer with a great sense of relief.

"She seems to be all right in the fore shoulders, but her hind shoulders don't seem to be quite right suggested the girl.

"There's nothing the matter with her there," asserted the dealer. "She is perfectly sound."

"There is no danger of her withers being spavined, is there?" she inquired carefully. "I've seen horses like that and they always make me nervous."

"No danger in the world, miss," the dealer assured her.

"How old is she?" inquired the girl.

By this time the dealer knew his man, and was confident.

"Being a lady, miss," he smiled, "I'd rather not tell her age."

"How considerate of you," she said earnestly, "I'll take her."—The Horseman.

"Puck's" Christmas Story.

It was the 24th of December. From a force of circumstances that render it impossible to be otherwise according to the almanac, it was also Christmas Eve. The wind rushed and tore around the corner like an Alderman seeking votes on election day. The snow was falling fast and the thermometer hovered in the neighborhood of zero, now above, then below, like a moth around an electric light. These few facts show conclusively that it was a typical Christmas Eve. Why typical I cannot say, for I have sat beneath the trees on the 24th of December, sans coat and hat, feeling comfortable but that was some degrees farther south than New York. At any rate it was called a typical Christmas Eve.

Inside his private office sat John Smith, the millionaire leather dealer of the "Swamp," pouring over his accounts. It was 7 o'clock, and all the clerks had gone home, leaving the proprietor alone. By the way did you ever meet a man by the name of Ebenzer Scrooge? Of course not, nobody else ever did, either—but John Smith. You know lots of John Smiths. A man does not need to have a name like a rusty saw to be mean. From this you will infer that Mr. John Smith was mean; so he was—this particular one. The amalgamated meaness of Scrooge and Marley did not begin to compare with the close-fistedness of this John Smith; consequently he was rich. I am not mean neither are you; but are we rich? Such subjects are painful on Christmas Eve—we will go on with the story.

Outside the office three small gamins were engaged in pelting an equally small girl with snowballs; suddenly they stopped. "Say, Jinny," cried one of the sterner sex, "try de ole man on de Santy Claus racket!" and they hid in the darkness of a doorwwy.

The little girl crept to the door, tried the door and entered. Oh, how warm it was! I merely introduce the last phrase to convince people that this is a genuine Christmas story. A slight cough roused the capitalist, and looking up he saw a red, pinched little face gazing wistfully at him. (The redness of the face was due to the application of snow in the hands of the small boy.)

"Well?" (the millionaire was impatient, as three cents were unaccounted on the balance sheet).

"Please, sir," and the voice grew plaintive in its question, "are you Santa Claus?"

"Bah!" said Scrooge (I mean John Smith); "humbug?"

Please, sir," and the little questioner grew earnest, "wont' yer gimme a quarter?"

The bearded capitalist arose. "Get!" he shouted, and pointed to the doorway.

Obedient to the command, the little figure got—outside the door—and regaining her companions the tale was told and they got—what?"

Fifteen minutes later the three cents had been found, the safe door closed and the merchant, well wrapped in his ulster, stepped outside the door.

Whizz-whizz-bang-bang—four snowballs flew with unerring aim at the face and high hat of Mr. John Smith.

"Get!" cried four voices, and the snow-covered, angry capitalist picked up his hat and got as fast as his legs could carry him.

This, dear reader is a realistic Christmas story, a Christmas of to-day, of eighteen hundred and ninety-two.—Puck.

AN EXAMPLE.—Kind old gentleman (assisting boy to get heavily loaded barrow up the gutter)—"I don't see how you manage to get that barrow up the gutter alone." Bright youth—"I don't. Dere's always some jay a-standin' around as takes it up for me."

WHAT cowards women are. It will about frighten them out of their wits to look at a gun or a pistol. But a man will take up a gun, cock it, peer into the muzzle and die a hero's death. There can be no question as to man's superiority to woman.—Boston Transcript.

Red Letter Days.

Written for the RURAL PRESS by MAUDE PEASLEE.

Among the many gifts received by favored ones at the present holiday season, is the calendar in its various forms.

A very pretty way of using them is to indicate on them in red ink the comparative amount of pleasure or happiness enjoyed on each day. This may be accomplished by making red dots or crosses to indicate the bits of happiness as they occur, or in case of an especially joyous day the whole date may be encircled with a red line.

This plan could be pursued with any kind of a calendar, but one with sufficient blank space could serve as a diary of pleasant events.

We are all too prone to forget our blessings, and in this way we would be brought to notice the bright moments that would otherwise be lost in the shadow. Even if New Year's Day has passed, it is not too late to commence this excellent practice.

SLEEPING AND NAPPING.—Another thing about which I am what might be called a "crank" is sleep. I believe in sleep and resort to it a great deal. I go to bed as early as I can each day, and get up when I am rested, but not before. Generally, this is at six o'clock each morning. But I do not believe in the old theory of "early to bed and early to rise" being applicable to our time at all. In the first place, because a man cannot get early to bed, and if he retires at 11 or 12 o'clock at night, as the demands of social life may sometimes compel him, it is very foolish for him to get up at six. A man should sleep until he is rested. One habit I have formed is that of dropping off into short naps. Even if I can only secure a nap of five minutes' duration, I find it refreshes me. When on the cars I sleep every chance I get. I believe if our business men could in some way work in a 15 minutes' nap in the middle of the day, it would mean years of life to thousands of them. For an active man, a man active with the brain, there is no tonic so good, so beneficial or exhilarating as sleep. Thank God for sleep, I say. It is one of the sweetest boons ever vouchsafed to man. It has done much for me, and I wish it might do as much for thousands of busy men whom I constantly meet.—Dr. Talmage.

TOBACCO IN PUBLIC.—With regard to etiquette in the use of tobacco in public places there is not much to say—smoke is as free as air. This is in accordance with the universal European custom. Men smoke in restaurants, cafés and at most of the hotel tables. Women do not smoke publicly. Whether or not they smoke in private is a matter for each man's experience. I have never seen a French lady smoke. Once, in Dresden, I saw a married lady puff a cigarette after dinner in a fashionable restaurant; and once I saw two English girls, seemingly of the upper middle class, smoking cigarettes in a railroad carriage, where they were alone. Here my knowledge ends. The demoiselles of the Moulin Rouge and the Casino are not permitted to smoke in those temples of light amusement, and the girls of the Boulevard do not smoke in the cafés. At the Café Anglais, which is still nearly as chic as ever, smoking is not permitted until after eight P. M. But rules like these are resented and scarcely ever enforced.—Paris Cor. Washington Star.

THE WHITE HOUSE.—The President's house at Washington completed its first century this year, its corner stone having been laid on October 13, 1792. The architect was James Hoban, who, it is said, used the mansion of the Duke of Leinster, at Dublin, as his model. Although the corner stone was laid in 1792, the White House was not finished until eight years later, when it was first occupied by President Adams. Maryland and Virginia contributed a large share of the money used in erecting the Executive Mansion—the former giving $72,000 and the latter $120,000. When British troops seized Washington, in August, 1814, and burned the interior of the Capitol, they also set fire to the President's house. The walls, which were of dark freestone, were so discolored by flames and smoke, that when Congress, in 1815, authorized the restoration of the building, it was painted white, and has since been popularly known as the White House.—Harper's Young People.

AN AGREEMENT WITH A DIFFERENCE.—"Do you believe in transmigration of souls, Joe?" "What's that, sir?" "Why, for instance, that the cow has had a prior existence in another form—perhaps been a being like myself." "Oh, no doubt the cows been a calf!"

YOUNG FOLKS' COLUMN.

Tommy's School.

"Geography,s a nuisance, and arithmetic's a bore!"
Said Tommy with a frown upon his face.
'I hate the sight of grammars, and my Latin makes me roar,
It's always sure to get me in disgrace.
When I'm a man," he added,as he threw his school-books down,
"I'll have a school that boys will think is fine!
They need not know an adjective or an adverb from a noun,
Nor whether Cæsar bridged the Po or Rhine.

"I don't care if they think that George the Third was King of Spain,
When those old fogies lived so long ago,
Or if they all should answer that the Volgà is in Maine,
What difference would it make I'd like to know?
But instead of useless things I,ll teach 'em how to coast and skate;
They all shall learn to row and sail a boat,
And how to fire a pistol, and shoot a rifle straight,
And how to swim, and how to dive and float.

"We'll play at tennis and at cricket all the livelong day;
And then there's polo, and—Oh, yes, foot-ball;
And base-ball they shall every single one learn how to play,
For that's the most important thing of all.
I tell you," finished Thomas, "I'll have one of just that kind;
Then all the boys, you see, will want to go,
They will not run away and say my school's an 'awful grind,'
Or call the lessons dull and hard I know."

—St. Nicholas.

Lucy's Tramp.

Written for the RURAL PRESS by C. P. NETTLETON.

"Yes, dear, it is always more blessed to give than to receive. I want my little girl to always be as unselfish as she was to-day." And Mrs. Alling leaned tenderly over and kissed little Lucy good night.

They were people in very moderate circumstances, but very unselfish. No one had ever applied to them for aid in vain when they could give it; indeed, their neighbors said that they encouraged vagrancy altogether too much. Still, they had their principles and did not propose to change them against their own judgment. To-day Lucy had given the money she had been saving for her mother's birthday, in February, to a poor old Spanish woman who had begged for "only 10 cents." She had told her mother afterward about it, weeping bitterly, womanlike, in the reaction that was sure to come to one of her sensitive nature but was wholly comforted by being tenderly praised. Now, as her mother left her alone to go to sleep, she thought over the occurrence of the day and decided in her wise little head that what her mother had said about its being more blessed to give than to receive was quite true. She was nine years old now, she thought, and must of course remember very clearly all her mother said, so that she herself could grow up like her.

This was two days before New Year's Day. That night her father returned from a trip to San Francisco. He had at last received the money from the sale of a town-lot somewhere in the East and was happy, as it had come just in time to pay off the mortgage of five hundred dollars on his home, and leave one hundred for luxuries. He was a mechanic and received good wages, but had lost most of his possessions except the little house he lived in and the lot it stood on.

Next day, the last day of the year, Lucy came running in from outdoors, quite excited.

"O, mamma," she exclaimed, "can't I give something to that poor man out there? He's just as hungry as he can be, and *so* handsome! I've told him to come here tomorrow and get his New Year's dinner, but he'll die before then if we don't look out. Can't I take him a pie; one of those big mince ones you made?"

"Why, Lucy, if he is so hungry as all that I guess we can find something better than a mince pie. Run and cut some bread and part of that meat we had for lunch. You can take a piece of pie, too, dear, but not a whole one."

"And, mamma, he can come to dinner tomorrow, can't he?"

"I think not, Lucy; that's going a step too far."

Poor little Lucy could only gasp out: "But, mamma, I've *promised* him!" Her mother had always told her that a promise was sacred, and now for her to say that her little girl would have to break one was too much. She was almost too shocked to cry, as she wanted to.

Mrs. Alling looked down at her with a half-amused and half-annoyed expression on her face.

"So you have promised him he could come, and now ask if he may! But it's all right, dear," she hastily added, as Lucy saw the mistake she had made and began to cry, from shame as much as disappointment. "I think we can get along this once. Tell him to come at four o'clock, if you like."

Lucy hurried away to get the bread and meat for the man, who stood at the gate with a half-decided manner. Evidently he thought the little girl was gone a long time. He was not a rough-looking tramp, and, indeed, looked more respectable than Mr. Alling usually did when he returned from his work.

At four o'clock sharp the next day he came again, and Mrs. Alling was not so disgusted at having a tramp-stranger at the table as she had expected to be. He was decently dressed, young, and had taken some pains to prepare himself for what must have been an unusual experience. He was quite well-informed, somewhat witty, and not an unpleasant guest in any way.

After dinner, Mr. Alling invited him to remain a while only to talk. The man, who gave his name as Hutchins, had complained of not being able to find any work that he could do. He said he was a graduate of Oberlin, had held a good position in Cincinnati, and been in several employments, but dropped all with the expectation of doing a great deal better in California. Instead of that, he had had to walk the streets. Mr. Alling was quite interested in him, and promised to do all he could to find work for him. He seemed quite grateful and pleased.

There were a few minutes when no one was in the room with him, and this was evidently the time when he took the money. He left at an early hour, and when Mr. Alling went to take a farewell glance and see that all was safe for the night, he found the money gone. It was a sore blow, as he would have to borrow the sum, large to him, of five hundred dollars, or lose his home. He went at once and gave the alarm, but felt that it was useless, as it was.

They tried to keep it from Lucy, but she found it out and was inconsolable. Her parents did not blame her, but she felt that she had done a most unforgivable thing to ask him to dinner.

The criminal was not found. He was, indeed, a sharp young fellow, and as one man said, "Probably he knew what he was about when he played that tramp racket!" He was traced from their town to another place, but there managed to elude pursuit, and at last the search was given up.

One year went by. The Allings had not prospered as much as usual, and were now in more trouble than ever. They had not been able to pay up that "death grip" the interest had counted up, and worse than all, they saw no hope of a change for the better.

Lucy no longer showed the least desire to feed a tramp or do anything good with her money except to put it in the plate Sundays. She thought she could safely do that!

A few days before this New Years, Mr. Alling brought home one night a package from the express office—a most unusual thing. He felt very blue that day, and was almost cross to Lucy and her mother when they begged him to open it at once. It bore the Adam's Express label with the New York mark on it, and the charges had been prepaid. Mr. Alling was more interested than he cared to show, and told them they could get the hammer and open it.

They did so, only to find another and smaller box inside. When this was opened the first thing they saw was a letter and the second was something they did not at first recognize. They took up the letter and called Mr. Alling from his dinner to look at the contents of the box. He came over to where they stood and looked down in amazement at the box.

"Why, great heavens!" he cried, "don't you know twenty-dollar gold pieces, even if they are packed on end close together?" and with a swift motion he took the heavy little box in his hands and turned it downside up on the table.

He was right. A small sized mountain of the shining gold pieces rolled out over the table.

"Lucy, lock the door," he said, when he could speak.

Then they stood staring at this strange thing that had come to them. Finally Mrs. Alling thought of the letter she had held in her hand all the time, but before she could read it her husband began counting the money so carelessly rolling over the table.

"One hundred and fifty," he said at last; three thousand dollars! I wonder what—why—can this be meant for us?"

Then they read the letter, first looking at the signature, which gave them no clue to the sender. It read as follows:

NEW YORK, Dec. 21, 1891.

My Dear Mr. Alling:—It is with great pleasure that I now send you the money that I so basely stole from you one year ago, with the addition of a little besides, to compensate you for the trouble or sorrow you may have suffered from its loss.

I can offer no excuse for my act, save that I was in great straits at the time. I thought then this was sufficient to excuse me, but it was not. Forgive me, I beg of you.

Do not try to discover who I am, as you will fail. I have sent it in cash so as to cover my trail that way, and you cannot serve any good end by spending it foolishly.

I am now rich, thanks to the start I got from that small sum. I suppose I shall lose my prosperity some time—an evil beginning usually ends evilly—and so I hasten to balance accounts between us while I am able.

I wish you would put aside one thousand dollars of the three I send for your little girl, who was so kind to me; this is the only favor I can ask.

Most truly yours,
"A KNAVE."

"Well, Lucy," remarked Mr. Alling, as he separated one thousand from the rest, "you have been well repaid for your kindness, but I don't think I would advise you to try that experiment again!"

And Lucy thought the same.

DOMESTIC ECONOMY.

SUGAR WAFERS.—Take sugar the weight of two eggs and flour the weight of one egg. Stir the three eggs and the sugar for a quarter of a an hour; add the flour and half a teaspoonful of minced orange peel or candied orange flowers, and put little heaps of it on a very thinly buttered sheet iron pan three inches apart. Dust them over with granulated sugar, and bake in a moderately hot oven. After they are done, remove them while hot, and bend them over a rounded stick in the shape of a scroll, or shape them like cornucopias, and fill them with whipped cream.

GRAPE PRESERVES.—Select large, well-ripened fruit, pick from the stems, carefully rejecting overripe and mouldy ones. Pulp the fruit, placing the skins in one vessel and the pulp in another. Boil the latter, without adding any water, for 15 minutes, then rub through a wire sieve. During this operation cook the skins until tender, after adding a little water. Add the pulp to the skins and measure, allowing three-fourths of a pound of sugar to each pint, and boil together, stirring constantly, for 15 to 20 minutes.

TAPIOCA CREAM.—Soak three tablespoonfuls of tapioca in cold water over night. Boil one pint of milk and add the tapioca, letting it cook three quarters of an hour. Add the yolks of two eggs and half a cup of sugar. When thoroughly cooked and creamy, take from the stove and flavor. Beat the two whites stiff and add half a pint of whipped cream, sweeten and flavor, and pour over the tapioca cream.

POTATO SALAD.—Boil six potatoes until very soft; peel and mash them while hot. Season to taste with salt, pepper and spice. Add one tablespoonful of butter. Boil two eggs, and dissolve the yolks in two table spoonfuls of vinegar. Pour it over the potatoes and mix well. Put them on a plate. Slice the whites of the eggs in circles, and place them over the potatoes.

PARSNIPS STEWED.—Put on a piece of pickled pork and boil until it is about half done or a little more. Then scrape and wash your parsnips, put them on in as little water as will keep them from burning, then add the pork; when the parsnips are soft dish them.

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PATRONS OF HUSBANDRY

In Union There is Strength.

The maxim which forms the head of this writing is so self-evident that it needs no argument to sustain it. It is a truth which meets us at every point of human effort. The advantages which accrue from unity of action have been much more largely utilized, especially in business matters, during the last few years than ever before. Indeed, the present may be considered an era of business combinations, as well as united effort in all the walks of life. While such action, as a general thing, is commendable, it is also a privilege which can be, and often is, greatly abused. As, for example, the opportunities presented in the middle portion of the present century for the multiplication and union of railroad interests in consequence of the general dislocation of former modes of travel and transportation, presented a rare opportunity to men of exceptional sagacity to combine their capital and monopolize for private gain alone the general transportation business of the country. The increase and improvements in machinery; the application of steam to ocean navigation; the wonderful mineral discoveries in California and other portions of the globe, still further added to the opportunities for the concentration of capital. In short, a new era suddenly dawned upon the business world, and men were everywhere dazzled by the splendid prizes which were thus opened up before them.

At the beginning of the century there were probably not more than two or three millionaires in the country. The first in America lived in Salem, Mass. He was a single millionaire and made his money in legitimate commercial enterprise with the Orient. The next was the great New York merchant who laid the foundation of his fortune mainly by an honest traffic in dry goods. Stewart was the first to astonish the country by a great show of wealth—some five millions—in the early thirties. The newspapers of the day were filled with curious calculations and estimates which such enormous wealth suggested at that early day. Girard, of Philadelphia, was another instance. But little more was heard of millionaires in this country until the opportunities above referred to were presented.

We have now entered upon still another era—an era of millionaires. The country is full of them. As late as 1850 it is doubtful if there were one dozen men in the United States who could clean up one million of dollars each. At this date, according to a table recently prepared by the N. Y. *Tribune*, there are over 2000 Americans who are worth $1,000,000 or upward, 200 of whom are worth from $20,000,000 to $100,000,000 millions, and 400 others from ten to twenty millions; while 31,000 men own one-half the entire wealth of the country! Such an enormous centralization of wealth was never before known in the entire history of the world. Does any one believe that such rapid accumulation of property in so few hands could have been effected by anything like fair means? It has been accomplished only by piratical business combinations of corporations and trusts, and by unfair stock-jobbing.

At the beginning of this century many who passed as "respectable men" "retired from business" on from two to five hundred thousand dollars, which were then considered enormous fortunes. Those men, when asked by what means they had accumulated such fortunes, replied, with jovial expression of countenance: "O, wool and ivory," which everybody understood to mean piracy and the slave trade. Such admission, at that time, fixed no special odium or disgrace upon the "operators." But how would such people be regarded at the present time? And we venture the assertion, in view of the present drift of public opinion, that the time is not far distant when it will be considered quite as disgraceful to confess to having amassed ten or twenty millions or more by such means as our present millionaires are employing—means which tend directly to impoverish the masses—as it would be to confess at the present day to have amassed millions by piracy and the slave trade.

We are passing through a period when the public mind and public conscience are being educated up to a higher plane of morality than existed when the slave trade was considered honorable, and when piratical expeditions were easily made to pass for daring commercial ventures in unknown or distant seas. The adventurers of to-day, unlike their predecessors, are making covert raids upon their very neighbors, and so adroitly have these raids been conducted, and so quickly and enormously great have been the fortunes amassed, that the public has become, in a measure, dazed at the results; but the enormity of the wrong has at last been fully shown and realized and measures are rapidly being taken to meet the emergency.

The problem of how to deal with it has been made plain by the enemy himself—united and concentrated effort. Such effort is sure to win, especially when a vastly greater aggregation of numbers is found on the side of right and justice. This is an age of system and machinery, and the education of the day has been sufficient to imbue the masses with practical capacity and executive skill fully equal to meet the emergency in which they find themselves placed. The federation of labor, as exemplified in the Grange, in the Farmers' Alliance and in the various labor unions, has already come to the front in a solid phalanx for united action. The result of the late election gives abundant evidence that the masses mean business. Already their organizations hold the balance of power in nearly half the States of the Union, full power in several State legislatures and the balance of power in several others. Twenty years ago the only full representative of labor in the Congress of the United States was a member from the State of Georgia, and he battled manfully and alone for the interests of labor until he died at his post. To-day there are no less than 65 farmers in the House and six in the Senate. We have also a farmer in the Cabinet. A large proportion, if not a majority of these men are members of the Grange.

To-day organized labor has the eye and ear of the community and the sympathy and proffered help of a large proportion of our lawmakers, as it never had before. Present indications warrant the belief that inside of the next five years "the privileged classes" which now "hold the fort" in our National and State legislatures and treat only with disdain the vast body of laborers and men of moderate means, will change sides with the wage earners and be no longer able to dictate to the lawmakers.

The farmers, by right of numbers and the importance of their calling, have taken the lead in this great movement of the masses, and they propose to keep it and to guide the same into right and proper channels. They will neither themselves antagonize nor allow others to antagonize the just rights of capital. They recognize the fact that labor can accomplish very little without the aid and cooperation of capital. They simply seek to draw the line, where the line should be drawn, between enterprise which is legitimate and for the good of all, and that which tends only to concentrate capital and aggrandize the few. They recognize that wealth won by foresight and honest industry is worthily acquired and should be peacefully enjoyed: but the idea is everywhere growing that the means and possibilities by which multimillionaires have heretofore been made should be absolutely stopped. How that may be done without infringing on natural and vested rights is just now a problem of anxious consideration. But sooner or later it will be solved without any hindrance to the wheels of progress or any material disturbance to our existing financial and social conditions.

The Secretary's Column.

By A. T. Dewey, Secretary State Grange of California.

JOHN TUOHY, W. M. of Tulare Grange, has a splendid home in Tulare City, and is well rated among the leading and substantial farmers of the county.

THE State Grange Report for 1892 was printed by Mr. H. Lick, by contract, and the first copies furnished the W. M. of S. G. were mailed by the Secretary.

WORK IN SEASON.—Between now and June will be the best season of the year to forward Grange work in this State. No time should be lost in running the first furrows of the season's labor. Start the work along!

WANTS THE STATE GRANGE.—Sister Perry writes from Merced mentioning some strong inducements on behalf of that city and county seat for locating the next session of the S. G. within its hospitable midst.

ALBERT G. WOODS, Treasurer of Tulare Grange, is residing with his family in Tulare. His teams are active in plowing and cultivating grain and alfafa near town. He has recently contracted to prepare for irrigating, seeding and cultivating for several seasons 80 to 100 acres on A. T. Dewey's NW quarter of section 22, one mile south of Tulare City limits.

QUARTERLY REPORTS.—Notwithstanding the recent stormy days for meeting, the following Granges have already sent in returns for the last quarter of 1892: Roseville, Pescadero, New Hope, American River, Bennett Valley, Selma, Tulare, Lockeford, Two Rock. Washington, Yuba City. It is hoped all other Granges will soon square the record of the old year and begin the new with bright and encouraging prospects.

EIGHTEEN HUNDRED AND NINETY-THREE.

During this week the election of officers in Subordinate Granges should be completed. We hope all will have chosen wisely preparatory for a good year's work. Installations will be in order after January 1st. Too much importance cannot be placed upon having a large attendance and an interesting session at the initial meeting of 1893. Let the experiences of the past and the rewards of the future inspire the brothers and sisters throughout our Grange field to labor more earnestly and diligently, and even heroically, than ever before. Hours spent in the Grange will certainly remain as among the brightest in enduring memory.

A GRANGE COLLECTION.

Why cannot the Patrons of California unite in making a unique and interesting collection of imperishable and rare products of the soil, natural wonders, curious, etc., at the World's Fair? We believe the Patrons of our State could easily lead those of all others in a display that would attract the attention and please the people of all nations and classes. A successful exhibit of the kind would gain the Patrons of California more friends and acquaintances of a desirable sort from abroad than any other available enterprise we can think of. It would help the farmers' Order and the State at large. Who will send further suggestions on this subject? Let it be discussed in the Granges. Who will volunteer to help in getting up such an exhibit?

WHO WILL WORK AND PERSEVERE?

The subject of a farm to farm canvas for the establishment of new Granges and the revival of old ones will be discussed by the Executive Committee at Sacramento next week. Now, what brothers and sisters will devote a season to the building up of the Order by a friendly canvas in some location where such work ought to be undertaken? Who can spend one week, one month, or more in so good a cause if well paid for time and expenses in event of success.

Write at once to the Worthy Master or Secretary what work in your own or neighboring sections you think ought to be done. What you believe you can do. What you are willing to do. What you think some one else can and will do if asked. The Committee, no doubt, wants all the information you can give and with as little delay as possible.

EXECUTIVE COMMITTEE MEETING

The Executive Committee met at the office of the Secretary, December 23d, A. M. Bros. B. F. Walton, Cyrus Jones and A. T. Dewey, Secretary, were present. Owing to the severe storm Worthy Master Davis failed to appear.

The Secretary was requested to suggest the purchase of the revised edition of the Constitution and By-Laws in sufficient numbers by each Subordinate Grange to supply its old members and each new member upon being initiated with a copy.

Among the bills allowed were those of H. Lick for printing 600 copies of the Annual Proceedings of 1892, $100; and Jos. Winterburn & Co., for printing 1000 and binding 500 copies of the By-Laws and Constitution, $52.50.

The Secretary announced having sent Masters and Secretaries of Subordinate Granges the Annual Proceedings and recommended another copy be forwarded to the Lecturers, which recommendation was favored by the Committee.

Letters furnishing the names of members-elect of the legislature considered friendly to farming interests were read by the Secretary. The matter of legislation and appointment of a committee was considered. In absence of the W. M. the matter was referred to the next meeting.

The Secretary was requested to revise the proposed amendment No. 2 to the Constitution recently published in the RURAL PRESS.

The meeting adjourned to meet at Sacramento, at 1 o'clock P. M., Wednesday, January 4, 1893, but a recent letter from Worthy Master Davis, requesting that the meeting be held on the 5th, may change the date.

GRANGE ELECTIONS.

[Secretaries are requested to send us as early report as possible for publication under this head.]

DANVILLE GRANGE.—Election Dec. 17; officers chosen: F. B. More, M.; S. F. Ramage, O.; D. N. Sherburn, L.; Geo. Hall, S.; Perry Baldwin, A. S.; J. C. Burgess, C.; Chas. Wood, T.; Miss Mira C. More, Sec.; W. Z. Stone, G. K.; Miss S. E. Wood, Ceres; Miss Ethel Opydke, P.; Miss Sarah Stone, F.; Mrs. Allie Gould, L. A. S.; S. F. Ramage, Trustee. Date of Installation, Jan. 7, 1893.

ROSEVILLE GRANGE.—Election Dec. 17; officers chosen: E. C. Bedell, M.; S. Pilcher, O; J. H. Gould, L.; C. B. Keys, S.; Willey Pilcher, A. S.; Mrs. Powell, C.; A. Bedell, T.; S. S. Gladney, Sec.; A. E. Farnham, G. K.; Jenny Bedell, Ceres; Mrs. C. B. Keys, P.; Carra Farnham, F.; Jennie Gould, L. A. S.; A. E. Farnham, Trustee. Date of installation, Jan. 7, 1893.

SELMA GRANGE.—Election Dec. 17; officers chosen: Pro. G. D. Hinds, M.; A. A. Whitten, O.; Mrs. J. K. Roadhouse, L.; Anthor Ross, S.; Wm. E. Brown, A. S.; Rebecca Meegee, C.; S B. Holton, T.; J. J. Roadhouse, Sec.; J. M. Hamilton, G. K.; Mrs. S. B. Holton, Ceres; Mrs. S. B. Orr, P.; Miss O. E. Shaw, F.; Miss Jessie Ross, L. A. S.; C. C. Scott, Trustee. Date of installation, Jan. 7, 1893.

AMERICAN RIVER GRANGE.—Election Dec. 10; officers chosen: A. A. Harris, M.; Joseph Cornell, O.; David N. Taylor, L; Carl Jensen, S.; George Criswell, A. S.; Mrs. M. Lauridsen, C.; Miss Cicely Cornell, T.; Miss Etta Cornell, Sec.; S. M. Warnock, G. K.; Mrs. M. Studarus, Ceres; Mrs. Daura Hansen, P.; Mrs. Annie Hanson, F.; Miss Edith Taylor, L. A. S.; Jas. Cornell, Sr., Trustee; Mrs. Maggie Studarus, Organist. Date of installation, Jan. 14, 1893.

GRASS VALLEY GRANGE.—Election Dec. 17; officers chosen: Alexander Henderson, M.; Mark Thornton, O.; Mrs. O. L. Twitchell, L.; A. G. Peterson, S.; Wallace Alderman, A. S.; Mrs. Mary Peterson, C.; A. Matteson, T.; O. L. Twitchell, Sec.; W. F. Rowe, G. K.; Mrs. L. Matteson, Ceres; Mrs. L. J. Thompson, P.; Mrs. Wm. Rowe, F.; Miss Lillie Alderman, L. A. S.; A. G. Peterson, Trustee. Date of installation, the first meeting in January, 1893.

BENNETT VALLEY GRANGE.—Election Dec. 17; officers chosen: John Burnham, M.; Peter Hanson, O.; Mrs. Emma Burnham, L.; M. S. Whitaker, S.; J. F. Craven, A S.; Mrs. H. L. Carr, C.; J. P. Whitaker, T.; Mrs. Anna Whitaker, Sec.; L. H. Hedrick, G K.; Mrs. M. Benjamin, Ceres; Mrs. E. Hedrick, P.; Miss Lucy Scheibel, F.; Mrs. S. A. Hanson, L. A. S.; D. M. Hedrick, Trustee. Date of installation, Jan. 7, 1893

LOCKEFORD GRANGE.—Election Dec. 17; officers chosen: Mr. J. M. White, M.; Mrs. J. W. Montgomery, O.; Mrs. C. F. Wakefield, L.; Mr. F. E McIntire, S.; Mr. W. H. Irvine, A. S.; Mr. S. M. McCloud, C.; Mr. George A. Foster, T.; Mrs. S. L. Locke, Sec.; Mrs. A. E. Wakefield, G. K.; Miss Mertice Locke, Ceres; Miss Orris Hatch, P.; Miss Maud Foster, F.; Mrs. L J. Locke, L. A. S. Date of installation, Feb. 4, 1893.

SANTA ROSA GRANGE.—Election Dec. 10; officers chosen: Chas. Gamble, M.; George Rogers, O.; S. T. Coulter, L.; Fred L. Saxton, S.; Paul Coulter, A. S.; E. Lida Coulter, C.; John Strong, T.; Glenn Murdock, Sec.; Julius Ort, Jr., G. K.; Alice Peerman, Ceres; Edith C. Saxton, P.; Maud Hawkins, F.; Maud Hendrickson, L. A. S.; Mrs. C. D. Bonner, Trustee. Date of installation, Jan. 14, 1893.

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DIVIDEND NOTICE.

SAN FRANCISCO SAVINGS UNION, 532 CALIFORnia Street, corner Webb; Branch, 1700 Market Street, corner Polk.—For the half year ending with Dec. 31, 1892, a dividend has been declared at the rate of five and one-tenth (5 1-10) per cent. per annum on Term Deposits and four and one-fourth (4¼) per cent. per annum on Ordinary Deposits free of taxes, payable on and after TUESDAY, Jan. 3, 1892. LOVELL WHITE, Cashier.

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INFORMATION FOR SETTLERS!

The members of the Kern County Land Company have a national reputation for wealth, business and financial ability. These facts set the matter of reliability at rest. The company's capital stock is $10,000,000.

They have 400,000 acres of arable, irrigable lands upon which the sun shines almost constantly; and their enormous irrigation system renders them independent of the annual rainfall.

A clear title; rotation, variety and certainty of crops; easy terms; availability to persons in moderate circumstances; ground ready for the plow—no stones nor thistles; good society; schools; churches, etc., are a few notable attractions of this region of country.

Kern is the largest county in the San Joaquin Valley. It has the finest climate for curing and drying fruits, etc.

The 400,000-acre territory of the Kern County Land Company is the pick of the county.

Its area is 5,184,000 acres.

Has the largest irrigation system in America.

The home of the peach, French prune, pear and raisin grape.

Planting and harvesting can be carried on every month in the year.

No rocks, hills or stumps on the land.

A failure of crops is unknown on irrigated lands.

Kern county fruits take the first prize at the State Fair.

Land can be made to pay for itself in less than three years.

Grows more alfalfa than any other county in California.

The advantages of good soil and plenty of sun, which occur in the Kern Valley, would have been of little avail but for the third and all-important one of an abundance of water from never-failing sources.

Through 300 miles of main canals, and 1,100 miles of laterals, the great Kern river furnishes enough moisture to slake the thirst of the 400,000 acres already referred to.

Drought is out of the question.

The system has been constructed in the most careful and scientific manner. Some of the canals are 125 feet wide and six feet deep.

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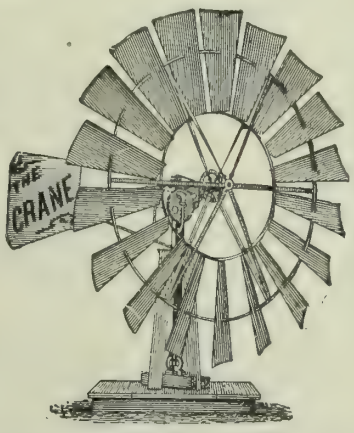

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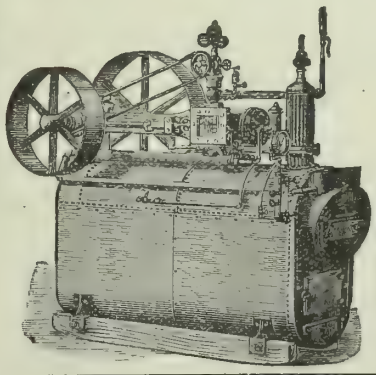

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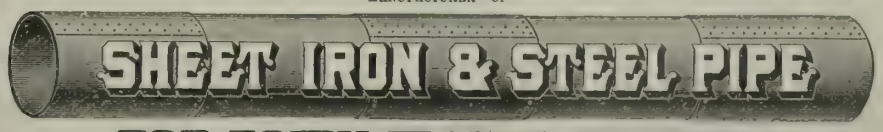

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Iron cut, punched and formed, for making pipe on ground where required. All kinds of Tools supplied for making Pipe. Estimates given when required. Are prepared for coating all sizes of Pipes with a composition of Coal Tar and Asphaltum.

AGRICULTURAL NOTES.

CALIFORNIA.

Butte.

Oroville *Register*: The California Fruit Co. shipped 600 boxes of oranges from here lately, and about 150 boxes went in small lots. The Citrus Association shipped 300 boxes and at least 100 boxes more in small lots, so that up to the present time something like 1150 boxes have been shipped.

Yolo *Mail*: The other day a resident of Bangor was cutting some trees for firewood, and on a pine-tree of considerable size he noticed a peculiar scar or an old cut. Having heard of the early-day custom of making a safe of the trunks of trees, he carefully cut into this pine and was rewarded by finding an old cap-box full of golddust which brought $50. People are now prospecting for gold among the trees.

Oroville *Mercury*: Tom Kelly and Howard Taber have been engaged the past few days in repairing the tin roof on Perkins & Wise's building at the corner of Montgomery and Myers streets. Yesterday, Taber approached the northern corner of the building, when he was driven away and badly stung about the face by a lot of honey bees. Investigation showed that a swarm of the insects had taken up their abode in one of the ornamental pillars on the roof, and, it being empty, had stored away a large amount of honey. The workmen will have to drive the swarm out before the work of repair can be completed.

The Chico *Chronicle-Record* gives the following account of how a lady in that city caught the chap who was stealing the oranges: "For some time it has been the practice with many persons about Chico to swipe the oranges from the trees in the dooryards about Chico. Some of our people have become very tired of this custom and have determined to put a stop to it. Mrs. F. C. Williams borrowed a steel bear trap, and set it under the orange-tree in front of her residence, Monday night. Yesterday morning she found a specimen of the genus hobo with his foot between the jaws of the trap. After extracting from him a promise that he would sin no more in like manner, Mrs. Williams sprung the jaws of the trap and allowed his trampship to depart; but he walked rather limping as he made his way from the scene of his latest adventures. It is safe to assume that he will not steal any more oranges from Fred Williams' tree."

Mercury: Perhaps the most striking example of what can be done with little money and work in this foothill section is the Drescher tract. About five years ago Mr. Drescher purchased from J. D. Braselton one thousand acres of land which had been given up to grazing purposes. The assessed value of the land then was $3 and $4 an acre. He immediately put out 90 acres to budded orange trees and has since increased the grove to 130 acres. It is to-day a magnificent grove, and Mr. Tucker estimates that it would readily sell for $400 an acre—a total value for these 130 acres of at least $50,000, and he has still unimproved over 700 acres of land that is just as suitable for fruit-growing. Part of the grove is just coming into bearing, and will produce probably 150 boxes of oranges. Phil Persons, who has taken special interest in the matter, says that there are 25 carloads of oranges in Oroville and vicinity. He includes the Thermalito, Palermo and Wyandotte country.

Calaveras.

Mr. John Villinger of Covina, Los Angeles county, informed the *Farmer* that he intended planting 60 acres to orange-trees in Calaveras county next year. He said he believed oranges could be grown as successfully there as in southern California, and on land that can be bought for from $15 to $25 an acre.

Fresno.

Eaton Cor. Fresno *Expositor*: Tom Ponton is fattening 20 hungry American hogs on pumpkins grown on two acres of land. The colonists have stacked their trays, and are now grinding their shears in preparation for the pruning campaign.

A sentiment has obtained against pasturing bands of sheep in vineyards. Many assert that they produce an evil effect on the vines, and all know that they fill the land with cockleburs. The Mooney Bros. evidently believe in the old adage that says something about "better late than never." They have built a drier and are now filling it with raisins, and will probably have it in full blast by Christmas. Owls and skunks are becoming rather numerous, and nightly hold high carnival among fresh-laid eggs and later-day chickens.

Humboldt.

YOUNG LADY KILLS A WILD CAT—One of our fair young ladies, Miss Levina Hamilton, says the Dyerville correspondent of the *Oracle*, has made a record which for bravery and marksmanship is to be envied by all, in killing a large wildcat, the particulars of which are as follows: His catship had frequently made raids on the young porkers of the place of her father, and during the absence of the men folks Miss Hamilton determined to put a stop to his audacious conduct. So, armed with a Winchester rifle and accompanied by the trusty house dog, she sallied forth in search of his catship. The dog soon found the trail and in a short time ran the cat up a tree, and when Miss Hamilton arrived on the spot she discovered the cat near the top of the tree. She, without fear, brought her gun into position, and taking deliberate aim, fired, and down came a monster cat of the lynx species.

Kern.

It has required the services of 2480 cars to carry the freight shipped from Kern county for the eleven months ending December 1, 1892.

Lassen.

Bieber *Tribune*: Jonn Silva started for Nevada last week with a band of about sixteen hundred sheep. Snow commenced falling when he left Hayden Hill, and when he reached the upper part of Said valley he could go no further, the snow being about five feet deep. The Susanville mail carrier passed where he was last Thursday, and reports that the sheep were bunching up on each other, were without feed, and that Mr. Silva's loss will be great.

Los Angeles.

During the last three months, from within a radius of five miles from Whittier, Los Angeles county, 2,000,000 pounds of English walnuts have been shipped, yielding an average of 8 cents.

A report comes from Covina that Geo. Rhorer has been offered $80 000 for the eighty-acre orange grove that he purchased of M Baldridge in a trade for his home place east of town last spring.

Pomona *Progress*: An olive grower who has three acres of five-year-old olive trees east of town, says he has sold the crop, estimated at four tons, for $100 per ton. Such returns ought to be satisfactory for trees of that age.

A couple of gentlemen from Indianapolis, who represent Eastern capitalists, are in Los Angeles working up a big scheme to buy large tracts of land in the six counties of southern California, and to bring people in from the East who will be producers and permanent residents.

Covina *Argus*: If some unforeseen calamity does not befall the orange crop of Covina, it will be a very heavy one considering the age of the trees. The four or five-year-old orchards are very heavily loaded, in fact the trees have too many on them and the branches have to be propped up to keep the fruit from doing the tree damage.

PRUNES BRING WEALTH.—Pomona *Progress*: Still another report of profit in growing prunes in Pomona valley has come to us, and it is one of the very best we have had this season. From 175 trees on two acres on the Wheatley place, south of town, there were gathered last month 29,700 pounds of fruit. These were dried, in the proportion of two and one-half pounds of green for one of dried. The dried product amounted to 11,430, and it sold for 9 cents a pound. The returns from the little orchard for the year were, therefore, $1,028.70. The clear profit from the property after paying off every expense upon it for the past twelve months and for the extra work of drying the crop and putting it in sacks for the market was $987 or $493 an acre. The trees are seven years old, and have not been irrigated for two years. In 1890, when the orchard was but five years old, the same trees yielded a crop that sold for $460. The orchard has thus far paid far more than its total cost to date.

A LESSON IN CONTENTMENT.—Pomona *Progress*: A Pomona ranchman who had been annoyed by a rat which constantly made way with chicken feed in the barn, set a trap for the marauder about a month ago. The trap was a new fangled wire affair, baited with a nice piece of toasted cheese, but the rat was too cunning, so an old-fashioned steel-pronged trap was buried under the chaff in the well-worn path from under the hay, and the new trap pushed aside. The old rat was caught the first night and killed, and no one thought of the other trap for three weeks. When the farmer's boy went to look for it, a mass of stuff in the centre attracted his attention, and, on examination, it was found that a couple of half-grown rats had found their way into it, and had settled down to make the best of the situation. They had drawn in through the spaces at least two quarts of chaff and bits of hay and had gone to housekeeping. They looked surprised at being disturbed, and the farmer is now exhibiting them as specimens of contentment under grave difficulties.

Marin.

Farmers about San Rafael, especially in the lowlands near the coast, are complaining of a weed that has germinated of late from the rich soil, which the cows eat and and which gives a peculiar taste to the milk, so much so that in some districts the milk is unpalatable. It also affects the butter made from the same.

Monterey.

Pajaronian: The Moro Cojo beet crop is a record-breaker, and the yield promises to eclipse anything in the history of beet-growing in this country. The large tract that has been turning off beets for the past two weeks has been running 30 tons to the acre as steadily as clockwork, and is good for that average for the balance of the season.

Nevada.

Colusa *Sun*: A rattlesnake will not cross a hair rope. Experienced campers, when they fear the rattlesnakes are around, encircle their camp with a hair lariat or two and feel secure. The Grass Valley *Telegraph* adds: Do you know the reason? The hair rope has ends of hairs sticking out all over it, and when the snake endeavors to cross, those stiff hair-ends get between the scales of the snake and tickle him almost to death. He can stand an inch or so of the tickle, but does not want to go his whole length, and so he turns away. This is a fact.

Orange.

Santa Ana *Blade*: Ripe oranges are rapidly appearing in the market, and the orange crop of the valley in a short time will be ready for shipment. The present crop is very heavy and unusually fine.

The directors of the Anaheim Beet Sugar Cooperative Company have selected a lot for the building and ordered 25 tons of beet-seed. The factory is to cost $375,000. The capital is assured, and the stock is practically all taken. The capital is partly local and partly foreign. Orange county is raising celery and shipping it to the East by the carload.

The Anaheim *Gazette* says: "Mr. Gilman's walnut crop has been packed and delivered at the depot, and he will receive a check for $4000 for it. Mr. Gilman some months ago sold his orange crop for upward of $13,000, and in all respects is doing quite well."

Orange *News*: A successful rancher told us a few days ago that one of the cheapest and best fertilizers he has yet discovered is peavines. His plan is to take a few pickings of peas from the vines and then plow under. Crops raised on the land so fertilized give very plain evidence of the benefit derived from the treatment."

The Santa Ana *Blade* gives the following advice: Plant orange orchards if you wish a profitable yield in time; plant a vineyard if you want quick returns and desire to grow rich in the near future; plant barley, potatoes, corn, pumpkins, beans, etc., if you want prolific crops and wish to secure a good living. You will come out all right on any one of the ventures.

Santa Ana *Blade*: There is liable to be a boom in the raising of citron, a fruit almost unknown in this section, but which, when crystallized, sells readily for 50 cents per pound. That grown in Southern California and crystallized at Los Angeles, commands a much higher price than the imported article, and the raising of it will prove very profitable.

Sacramento.

Record-Union: There was a Christmas turkey suit in Justice Henry's court Friday. It appears that a farmer named Thomas Mahan held a note against a neighbor named Pony Brown for $110, and had heard that Pony had bragged that he did not intend to pay the money he owed. Here was where Pony overlooked his hand, as the card experts would say. He started for this city early yesterday morning with a load of Christmas turkeys—some 136 or more—intending to dispose of them for quite a snug little sum. Mahan heard of his debtor's intended voyage, and resolved to do a little "bizness" himself. So he harnessed his horse and galloped to town ahead of Brown. He hunted up S. J. Holsinger, the attorney, and told him about the note. The attorney hied himself to Justice Henry, got out an attachment, and when Brown arrived had it served upon him. Turkeys were selling at 17 cents a pound just before Brown arrived, but the marketmen had been relying upon his invoice to supply the demands upon them; but when it was found that his stock had been captured, and that there were telephonic demands upon this city from San Francisco for more turkeys, the rate went up to 23 cents per pound. Considerable pressure was brought to bear upon Brown, and he finally agreed to pay the money due Mahan, in order to release the turkeys.

San Bernardino.

The sentiment for county division in San Bernardino county is being kept active by mass meetings and public discussions. Riverside is the name proposed for the new county.

Riverside *Press*: C. B. Shrock brought to our office a peculiar-looking orange—a freak of nature. One-half of the orange is yellow, the other half green, the line of joining as distinct and sharp as though made with a knife. The orange is a Navel, large size and perfectly formed.

Some of the finest tomatoes we have ever seen were brought into this office, says the Riverside *Press*, by John Hall. They are very large, weighing over 20 ounces each, meaty and nice flavor. They are called French's early and are just ripening. The frost the last few nights has not injured Mr. Hall's vines.

Sugar beet growing is going to take on very large proportions on the Chino ranch the coming season. A disposition is manifest among the farmers to plant to beets every acre that can be had for the purpose; and did the capacity of the factory warrant a larger acreage, it would undoubtedly be planted.

Orange Belt: Arthur L. Hooper of Los Angeles reports the following yield of a three-acre orchard planted to the Lemon and the Orange Cling and the Salway: The second year from planting the returns from his peach crop were $40. The returns for corn and barley raised between the rows of trees were $165. The third year the returns from the peach crop were $400. The returns for the fourth year were $260. The returns of this, the fifth year, $750. These returns are all net, as the crop of barley raised between the trees amply paid for all cultivation, irrigation, and gathering the crop.

San Luis Obispo.

Reasoner: A project is on foot by the San Luis Obispo Alliance to build a flouring mill at this place. It would seem that there is a good field here for such an enterprise.

Solano.

New Era: Suisun bay is full of mallard, widgeon, sprig and teal ducks. The canvasback are very scarce, both in the tules and the bay, and it looks as if they have ceased to visit this section. Gray and white geese are plentiful.

Santa Clara.

San Jose *Mercury*: Nearly 75,000,000 pounds of freight have been shipped to Eastern cities from San Jose during the present year from January to the first of December, and 20,979,240 pounds of this shipment was dried fruit. The canned-fruit shipment has reached the enormous total of 20,711,785 pounds. The dried-prune shipment of 16,972,830 pounds was the second heaviest shipment, and green fruit takes third place with 15,656,675 pounds to its credit. At the end of the year the grand total will probably be between 90,000,000 and 100,000,000 pounds. The different items will increase, but the consignments will be in about the same order as in the appended statement. The grand total for 1891 was 63 404,260 pounds, according to the figures at the broad-gauge depot, and the figures given below, to December 1st.

Sonoma.

Santa Rosa *Democrat*: "What! A dollar for skinning that cow? Why, I only got 50 cents for the hide." O. H. Hoag, loquator; time, 5 P. M. "I can't help that. One dollar is my price for skinning a cow." "All right," said Obe, handing over two halves; "but that beats me for bad luck. My cow, worth $50, got sick. I paid $10 for a veterinary surgeon, $5 for medicine, and yet the cow died. I thought I'd save something and had my fine Jersey skinned. I got four bits for the hide, and here's a bill of $1 for taking it off. It's a cold day anyway, and I never feel well when the north wind blows, and blankety-blank the McKinley bill, which brought all this turmoil on the country."

Sutter.

The Board of Supervisors of Sutter county have placed a bounty of $7.50 on every coyote scalp taken in that county. This together with the $5 additional bounty offered by the State makes coyote-hunting profitable business in that section.

Sutter County *Farmer*: The nurserymen are digging their trees and vines preparatory for delivery for planting. Usually the taking up of nursery stock is quite a job, but a system of plowing them up is now used. Granville Stabler has been operating a tree plow or digger in the nurseries in this vicinity, which consists of a large steel hoop or shear which is pulled along the rows by eight or ten horses, and the roots of the trees are cut off several feet below the surface of the ground and the soil loosened so that the trees can be readily pulled up by hand.

Tulare.

Visalia *Delta*: J. J. Cairns of Lindsay intends to plant 20,000 acres to wheat this winter. Mr. Cairns is one of the largest wheatgrowers in this State.

Tulare *Register*: Brown Wilkes, a three-year-old and the first colt sired by J. N. Anderson's Bay Wilkes, was recently sold to Mr. Worley of this county for $1000. The colt is now being trained at the Tulare track by Mr. Anderson.

Ventura.

Ventura *Free Press*: Leading honey men in this section look upon the prospects for a good season as very flattering. Early rains have brought out flowers, and the coming spring and early summer will abound with bee-food.

Yolo.

Weekly Mail: Duck shooting is reported to be about the most disappointing sport in which a young man can engage at the present time. For many years game has not been so scarce as this season. It is said that the ubiquitous carp and catfish eat the duck feed and the birds of sport are compelled to hunt for pastures new.

W. P. Merrill, of the firm of Merrill & Nelson, who are charged with selling 151 tons of wheat stored with them at their Knights Landing warehouse, was examined at Woodland night before last to determine his sanity. He was found to be suffering from acute dementia and was committed to the Napa Asylum. The officers are making every effort to capture Nelson, whose whereabouts still remains a mystery.

Yuba.

The flour mills of Chico, Gridley, Satena and Wheatland are to be dismantled and the Buckeye Mill Company of Marysville is to supply the needed flour. The *Four Corners* says that the people of Wheatland are not going to stand this business, and are to put up a fine mill.

OREGON.

Several farmers in Douglass county, have lifted heavy mortgages from their farms by the profits on their prune orchards.

A coyote was killed the other night while leisurely making his way along one of the principal streets of Pendleton, Or. Although a comparatively new town, it is some time since one of these animals was seen in Pendleton's streets.

An immense hop-field is being planted on Burdock's ranch, about one mile west of Coyote Station on the Columbia River. One thousand acres of tillable land lying between the bluff and the Colorado River will be utilized in the undertaking.

Salem Statesman: The future of the hop market is one of those problems "past finding out." While we do not now expect to see a recovery from the present decline, yet we do not look for any break on the choice growths suitable for export. The low grades to which there has as yet been no fixed market value, it is difficult to even guess what they will go off at; as yet we have failed to draw an offer on them. We estimate that about one-half, or, in round numbers, 20,000 bales of the California crop, one-fourth, or about 5,000 bales of the Oregon crop, and one-seventh, or, in round numbers, 3,000 bales of the Washington crop have gone forward from the coast.

WASHINGTON.

Patents have been granted to women for more than 3,000 acres of land in four townships alone in the Big Bend country, Washington, and four or five more are still holding their claims until such time as they can prove up on them. Some of these ranches are under cultivation, and bring in a comfortable revenue to their plucky owners.

Fire destroyed the elevator of the Pacific Coast Elevator Company at Fairfield, Spokane county, Washington, Wednesday evening. Sixty thousand bushels of wheat were consumed. The loss is estimated between $60,000 and $70,000.

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FRENCH PRUNES on Peach and Myrobolan, 1 Year Old. CHERRIES, PEACHES and APPLES 1 and 2 Years Old. Also a very Large and Complete Stock of SHADE AND ORNAMENTAL TREES. The Finest Stock of ROSES in California. Write for Prices. E. GILL,

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PERCY W. TREAT.

Davisville Nurseries, - - - Davisville, Cal.

Seeds, Plants, Etc., Continued on Page 567.

How Needles Are Made.

Needles are manufactured out of superior quality of cast-steel wire cut into lengths to make two at a time. Pieces are straightened upon an iron table by means of an instrument termed a "rubbing knife." The wire is then pointed by automatic machinery provided with a fan or shaft to carry away the steel and grindstone dust, which is very injurious to inhale. In former days the lives of workmen employed in the needle trade were considerably shortened by breathing air charged with particles. Indeed, the following is a narrative told by a doctor in the district of the industry concerning a patient, a hand needle-pointer by trade, who complained that he felt a hard ball of something in his trachea, which rose and fell between his chest and throat. The doctor ridiculed the idea and told him it was nonsense, but the man still persisted it was there, and asked him if he died to examine him. After the poor fellow's death a post mortem examination was made and resulted in a solid mass of steel and stone dust about the size of a bird's egg being found, as he had said, in his throat, and the lungs were so encrusted with steel that a knife would scarcely pierce them. It was therefore truly a blessing to these busy workmen when this deadly process was done away with, and in its stead a healthy one substituted.

After the operation of pointing, the wires are stamped and then pierced to form the eyes. As the diameters of the wires used in this industry are usually very small *e. g.* .03 of an inch, it will be readily apparent that the above process involves considerable accuracy and skill. The "burrs" produced by stamping are afterward removed by means of flat grindstones called filing machines. A "spit" of these double needles is next placed between a hand vise, termed "clams," and divided into single ones, requiring only to have their heads "rounded" by filing to furnish the complete articles.

A finished needle, however, must have a hard and elastic temper, whereas these, in their present state, are softer than the wire out of which they were made. Therefore, after the needles have been burnished in the eyes, they are hardened by heating in an oven, and subsequently cooled by plunging them into oil. This rapid cooling of the steel makes it as brittle as glass. The needles will now almost break upon touching them, indeed, in this condition they would be as useless as in the soft state. To reduce them to a perfect state of elasticity, temperature has to be again raised about 600 degrees, and then by allowing them to cool gradually the required degree of elasticity is obtained. During the process of hardening, the fire makes many of the needles crooked and these have to be picked out and straightened by a small hammer, one at a time, on an anvil. The heads are afterward softened by the application of heat for facilitating burnishing. The process of scouring the needles bright takes about a week. They are mixed with oil, soft soap and emery powder, wrapped in loose canvas, and placed in a kind of mangle worked by mechanical power. This scouring process done, the needles are washed in hot water and dried in sawdust.

The points, slightly blunted by passing through the various processes described, are now set upon a small revolving grindstone and the eyes reburnished. The next operation is that of polishing the needles, and which is performed by a rapidly rotating wheel covered with prepared leather. The needles are caused to pass many times over the leather in order to thoroughly polish them. Finally they are counted and stuck by women into cloth, wrapped in paper, and labeled for the market. — Chicago Journal of Commerce.

Structure of the Eye.

That the structure of the eye suggests comparison with a photographic camera is an exceedingly trite observation. The "sensitiveness," as it were, of the retinal "plate" is determined, other things being equal, by what is commonly called acuteness of vision. And it may be remarked, in this connection, that there must be a definite "length of exposure" necessary for the impressment of the retinal image upon the mind. The true optical exposure may, of course, be an exceedingly short one, but there is the retinal—probably retinal, but possibly, in part, cerebral—persistence of action analogous to phosphorescence, to be reckoned with, and we should like to know to what extent the effect of this upon the brain is cumulative.

Every one knows by experience that it is impossible for the mind to obtain a passing glimpse even of one out of a train of very rapidly successive images upon the retina. But it is also known, as we have just remarked, that a most exceedingly short retinal exposure is sufficient, provided that the subsequent "persistence" is not interfered with. A simple experiment to estimate the relative importance of optical exposure and of "persistence," in regard to the production of cerebral action, would be to suddenly extinguish the light while observing a zoetropic succession of images.

It is complained, and we think with reason, that the properties of the retina, regarded as a photographic surface, have not been sufficiently investigated, and that the records of such experiments, as have been tried, are not very accessible. The question whether the excitation, active or merely persistent, of one color sense is favorable or otherwise to the sensitiveness of the other color senses, has been recently asked. So, too, the question how the period of persistence varies with the quantity and quality of light; what facts can be discovered by photographic retinoscopy; whether problems relating to the color senses, and the extent to which "persistence" is accompanied by surface phosphorescence, could not be most accurately determined by photographing retinal images? The suggestion to study the eye photographically is, in our opinion, worthy of attention. Actinic illumination or images would have the advantage of not irritating the eye or causing contraction of the pupil. The only doubt we entertain is as to the sufficient transparency to actinism of the substance of the eye.—Optician.

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Mt. Pleasant, Texas, June 20, 1888.
Suffered 8 months with strain of back; could not walk straight; used two bottles of **St. Jacobs Oil,** was cured. No pain in 18 months.
M. J. WALLACE.

BRUISES.
Pittsburg, Pa., 302 Wylie Ave., Jan. 29, '87
One of my workmen fell from a ladder, he sprained and bruised his arm very badly. He used **St. Jacobs Oil** and was cured in four days.
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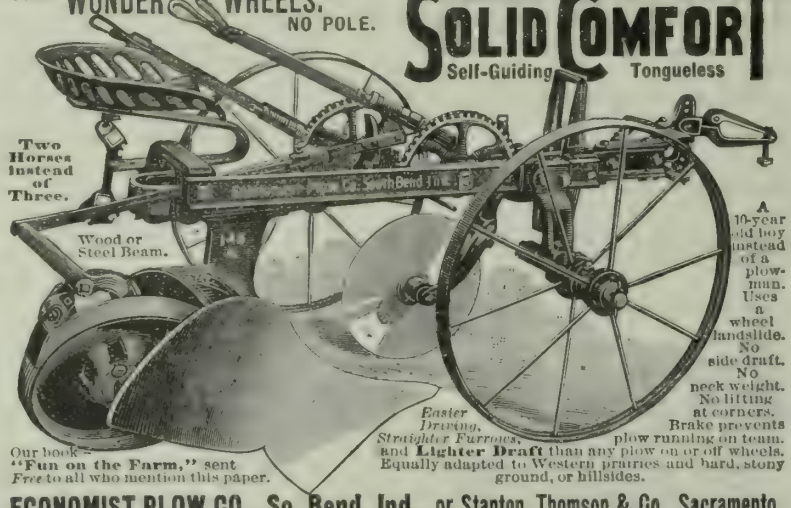

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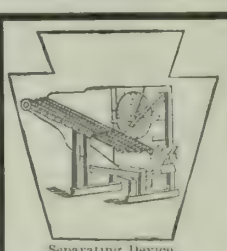
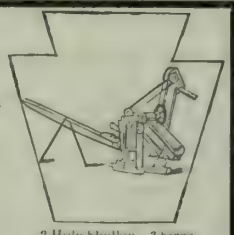

Separating Device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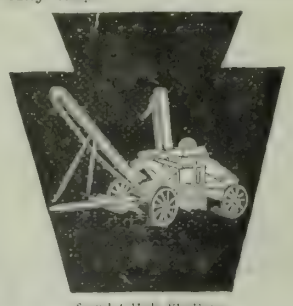
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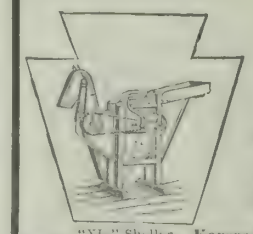
Self Feed and Hand Feed.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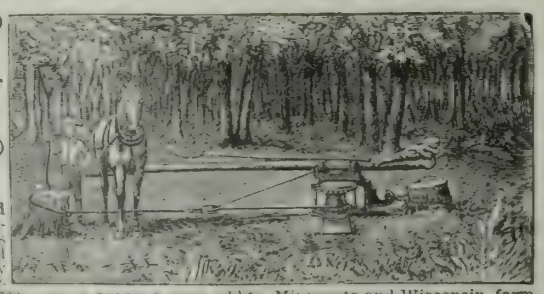

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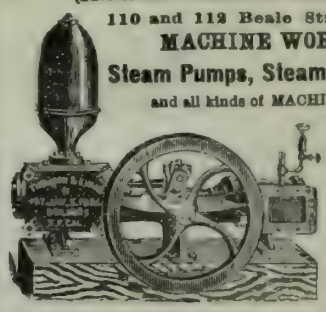

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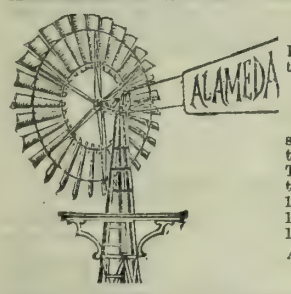

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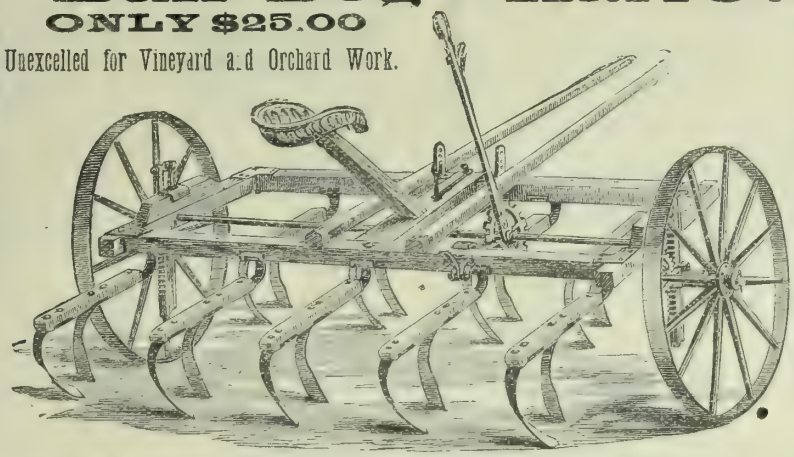

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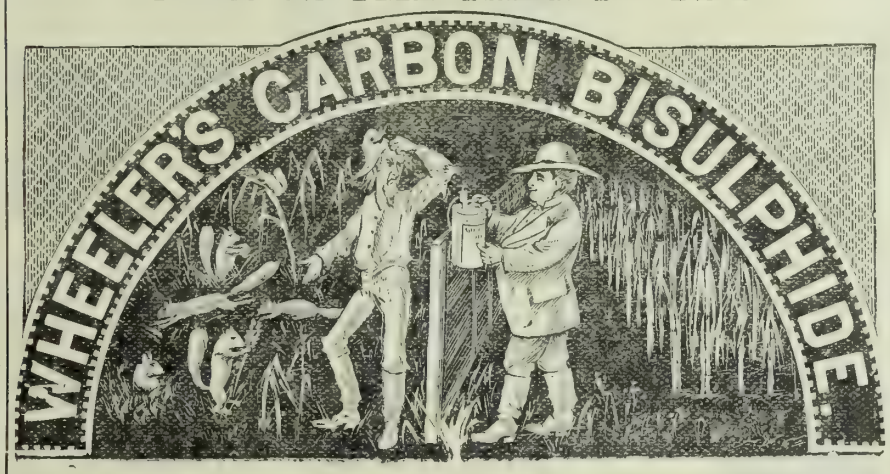

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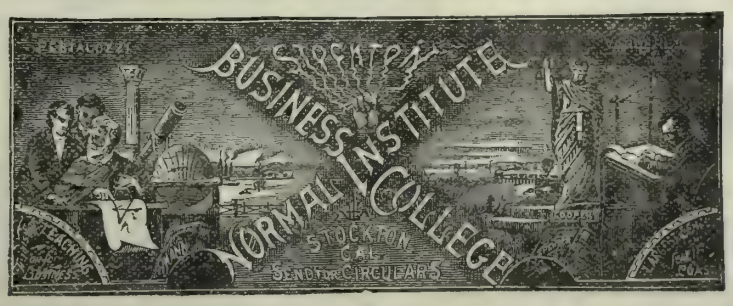

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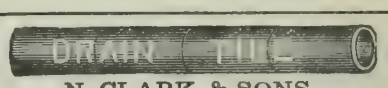

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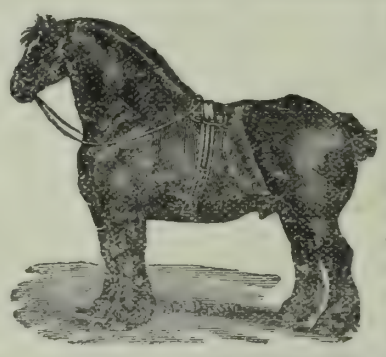

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S. F. Market Report

Market Review.

SAN FRANCISCO, Dec. 28, 1892

Jobbers and merchants suffered severely from the bad weather that ushered in the Christmas holidays. Both had made large preparations for ample Christmas trade, and both were, to a considerable degree, disappointed. Customers were kept indoors by the violence of the storm, and those who handled perishable goods especially were severe sufferers in consequence. Jobbers say they have not experienced so unprofitable a Christmas in many years. If the storm had held off a few days, stocks might have been cleaned up, and happiness would therefore have been their portion.

THE WHEAT SITUATION.

It is a matter of regret to the RURAL PRESS that it is not able to give, at this Christmas season, cheering news to its thousands of agricultural readers of substantial improvement in the wheat situation. A slight sympton of strength manifested itself yesterday, and quotations experienced a small advance, but advices today are not more encouraging than they have been for some time in the past. The market is very weak, and it is difficult and unsafe to predict when it will improve. There is some comfort in the reflection that things cannot well be worse, and that when a movement does begin, it must be upward. The general situation is summed up by Starr & Co. in a circular letter as follows:

The United States wheat crop is now the principal influence affecting wheat prices. It is almost certain that not over 50,000,000 bushels of the abnormally large United States 1891 crop, estimated to be 613,000,000 bushels was carried over into the crop of 1892. Notwithstanding the fact that the crop of 1892 is so much below that of 1891, and that the exports so far in 1892 have been within ten per cent of the same time last year, the quantity of wheat on passage to Europe from the United States is now just about the same as one year ago, but then France required about 70,000,000 bushels more than she does this year, Great Britain's wants being about the same in both years. Stocks in the United Kingdom are now about 260,000 short tons in excess of the same time last year, while the visible supply of wheat in the eastern States, which on December 14th 1891, with their abnormally large crop, was 42,250,000 bushels, was on the 19th inst. up to the enormous figure of 78,350,000 bushels, which is regarded as being only four to six weeks distance from Europe

The excess wheat of 1892 over that of 1891 is therefore,

	Short Tons.
Excess of U. K. stocks	260,000
Smaller wants of France	2,000,000
U. S. visible supply excess	1,060,000
Total excess	3,320,000

Owing to the continued decline in the price of silver, and the consequent drop in rates of exchange, the British wheat importer can obtain now for £1 sterling, just double the quantity of wheat from India and Russia than he could 15 or 20 years ago. This greatly reduces European prices of American wheat.

Notwithstanding a very material shortage in the crop of United States 1892 from 1891, there is now an excess in the visible supply of 3,320,000 short tons, or about 112,000,000 bushels of wheat over the previous year. It is clear that there can be no permanent increase in prices until there is a prospect of reduction of this enormous surplus. Where the excess is in a fair way to be materially reduced or removed, prices will experience a substantial advance. There seems to be no immediate likelihood of such reduction. Russia, notwithstanding its recent famine, is now a heavy exporter. In one week recently, 150,000 tons of wheat were shipped.

Barley.

There is a comparatively easy feeling in the barley trade, though prices have undergone no marked advance. Dealers do not hesitate to affirm that the time will soon be at hand when sellers may expect and receive better prices.

There is nothing doing in oats, though a favorable turn is looked for after the new year.

A comfortable tone prevails in the hay trade. Quotations are unchanged.

Smoked and Salted Meats.

A very stiff feeling is noted in salted and smoked meats, and there are sound reasons to expect further advances in the near future. Prices are already higher all along the line of Eastern meats. The chief cause is the almost unprecedented shortage in the East and the consequent inactivity of packers. The movement here is confined largely to Eastern produce, local meats having as yet experienced no special improvement. Receipts of California meats are light. It seems inevitable that the California meats must engage in the general improvement in prices.

Potatoes.

Potatoes have experienced a general advance, except sweets. The causes lie in small receipts and the advance of the season. Heavier imports from Oregon are expected after the new year, and they may have a tendency to interfere with the upward movement. Onions are higher. Receipts are small.

Poultry.

The bottom has dropped completely out of the poultry market, just as the RURAL PRESS anticipated. The holiday demand was unexpectedly light, being reduced largely by the storm. Turkeys were quoted as high as 24 cents for choice dressed, but to-day the minimum quotation is 12½ cents, with a range up to 18, according to quality. Hens dlag. Ducks and geese are in poor demand.

The wild-game market is in sorry condition. Receipts are in very poor shape, owing to the storm. Quotations are nominal, dealers getting rid of stocks for anything offered.

Dairy Produce.

Butter is in fair demand and the market shows a firmer tone. Choice qualities hold their own as regards prices, though consumers show a preference for packed and Eastern. The only advance to be noted is in the latter.

Cheese is in good tone, and prices for choice have shown an upward tendency. Quotations, however, remain the same. Offerings are small and the demand fair.

For eggs prices rule higher for choice, fresh, and selected. The demand is at present very good, though it may be less strong after the new year.

Fruit.

Oranges are beginning to arrive in large quantities and the quality shows constant improvement. Butte county oranges of superior sweetness are in the market. Consumers, however, yet prefer the Japanese orange, because of its uniform ripeness and lower cost. Prices range somewhat lower, under large receipts. The market is considered in good condition. Of Californians, seedlings are preferred to Navels, prices being lower.

California lemons are at a disadvantage under large imports of Sicilies, six carloads of the latter having arrived recently. Prices have dropped.

Of apples and pears the market is very well supplied.

In dried fruits trade is fair only. Peaches, prunes and apricots are firm. Receipts of raisins are slim, though the market is yet in favor of buyers.

Vegetables.

New vegetables have appeared in the market, including peas, tomatoes and cucumbers. Cubumbers are greenhouse, and are quoted at $3 per dozen. Receipts generally are light, and the holiday demand normal. Dealers expect soon to have fresh vegetgbles of nearly all kinds the year round. The production of vegetables in Southern California is on the increase and competition will insure better methods of cultivation and a more constant effort to send supplies of all kinds at all seasons, the climate and soil there making such efforts practicable.

Live Stock.

Steady demand for fresh meats maintains uniform prices. Supplies are fair.

Miscellaneous.

There is nothing to report in wool or hops.

The holiday demand for nuts has lapsed, and trade is stagnant.

For flour there is a uniform local demand. Not much is being done in shipping. Prices are low.

Recapitulation.

The following is a recapitulation of the wine exports for 11 months:

	Gallons.	Cases.	Value.
By rail	5,536,200	.....	$2,214,480
By sea	4,341,112	12,677	1,844,029
Totals	9,877,312	12,677	$4,058,509
1891	9,476,977	8 834	3,961,702
Increase	400,335	3,843	$96,807

In the above recapitulation, shipments from Los Angeles and Colton are omitted in each year. Including these terminals, the total shipments during the first 11 months of 1891 were 9 775 209 gallons by sea and rail (including cases), and 8,297,937 gallons in 1890.

Overland Exports California Fruit.

The shipments of California fruit overland for November and for the first 11 months of the year compare as follows in tons of 200 pounds:

	For. November.	Jan. 1 to Nov. 30
Canned goods, tons	2,847	34,796
Dried fruit	2,770	23 817
Ripe fruit	1,410	47,799
Raisins	7,371	17,847
Totals	14,398	124,259
In 1891	17 601	119,188

Since February 1st the section of the State south of Bakersfield has been omitted from these returns. In November last year these shipments from the southern section embraced 60 tons canned goods, 123 tons dried fruit, 44 tons ripe fruit, and 517 tons raisins, and during the first 11 months of the year the same section contributed 901 tons canned goods, 811 tons dried fruit, 3768 tons ripe fruit, 12,046 tons citrus fruit, and 781 tons raisins, making a grand total of 18,216 tons.

The English Wheat Crop.

LIVERPOOL, Dec. 24.—English wheat crop (official), 58,560,000 bushels; crop of United Kingdom, 60,810,000 bushels. This is 4,000 000 bushels less than expected, and quality poor.

Sugar Shipments.

The sugar shipments by sea and overland during the past 11 months were as follows:

Months.	By Sea	By Rail.	Totals.
January, lbs	112,480	6 194,000	6,306,480
February	1,809,256	14 668,000	16,477 256
March	631 339	13 346 000	13 977,339
April	183 451	12,200,000	12,383 451
May	84,378	16,172,000	16 256,878
June	161 428	18 696,000	18,857,428
July	86,802	18,122,000	18,208,802
August	108,522	15 488 000	15,596,522
September	70,218	6 336 000	6,406.218
October	90,004	4,654,000	4,744 004
November	109,855	1,856,000	1,965,855
Totals	3,447,733	127 732,000	131,179,733

The total shipments by sea and rail during the first 11 months of 1891 were 113 777,785 pounds, against 93,505,893 in 1890 and 119,945,599 in 1889.

Local Tonnage Statistics.

The following is a summary of the engaged and disengaged tonnage here and on the way to this and neighboring ports yesterday morning:

FREE AND CHARTERED.

	1892.	1891.
Chartered for grain	34,333	92,455
Miscellaneous charters	9 989	19 273
Disengaged	140,809	38.870
Totals	185,131	150,598
At neighboring ports—		
Total tons for 1892		23,550
Total tons for 1891		51,295

TONNAGE ON THE WAY.

	1892.	1891.
To San Francisco	271 747	282.392
To San Pedro	6,511	5,612
To San Diego	11,573	21,008
Totals	289,831	309,012

The disengaged list consists of 75 vessels, of which 18 are American, two are Nicaraguan, two are German, two are Italian, one is Norwegian, one is Danish and 49 are British.

The list of vessels in port chartered for grain numbers 22, of which 17 are British, one is Swedish, two are Italian, one is German and one is Norwegian.

Miscellaneous charters include one for Hawaiian Islands, one for United Kingdom via British Columbia, one for New York via Japan, one for United Kingdom via Puget Sound and one for New York direct.

The vessels chartered to load wheat have a total carrying capacity of about 54,900 tons. At this time last year the tonnage under engagement for grain-loading amounted to 92,455 tons, with a carrying capacity of about 147,955.

Produce Receipts.

Receipts of produce from all sources at this port for 7 days ending Dec. 27, '92, were as follows:

Flour, qr. sks	269,983	Chicory, bbls	95
Wheat, ctls	3.0.37	Hops, bdls	20
Barley, "	6,292	Wool, bdls	101
Rye, "	..	Hay, ton	710
Oats, "	19,677	Straw, "	20
Corn, "	....	Wine, gals	189,560
*Butter, "	367	Brandy, "	37,600
do bxs	....	Raisins, bxs	8,140
do bbls	....	Honey, cs	..
do kegs	....	Peanuts, sks	....
do tubs	...	Walnuts "	....
do ½ bxs	....	Almonds "	150
†Cheese, ctls	436	Mustard "	....
do bxs	....	Flax "	....
Eggs, doz	24,900	Popcorn "	....
Beans, sks	662	Broom corn, bbls	....
Potatoes, sks	14,924	Leather, rolls	383
Onions, "	1,532	Tallow, ctls	61
Bran, sks	6,345	Hides	1,878
Buckwheat "	....	Pelts	769
Middlings "	883		

Grain Futures.

Liverpool.

The following are the closing prices paid for wheat options per ctl. for the past week:

	Dec.	Jan.	Feb.	Mar.	April.	May.
Thursday	5s 6 d	5s06¾d	5s07½d	5s09 d	5s09¾d	5s1.¼d
Friday	5s07½d	5s07¾d	5s09½d	5s10¼d	6s0(¼d	.....
Saturday	.....	.....	.....	.....	.....	.....
Monday	.....	.....	.....	.....	.....	.....
Tuesday	5s08¼d	5s08¾d	5s10¼d	5s11¼d	6s01½d	.....

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market for P. S
Thursday	29s6d	30s0d	30's d	Stagnant
Friday	30s d	30s3d	30s'd	
Saturday	3.s d	30s9d	30s3d	Holiday
Monday				Holiday
Tuesday				Nothing offering

To-day's cablegram is as follows:

LIVERPOOR, Dec. 28.—Wheat—Firmly held. California spot lots, 6s 2½d; off coast, 30s 6d: just shipped, 31s 9d; nearly due, 3.s 6d; cargoes off coast, nothing offering; on passage, firmer and held higher; Mark Lane wheat, steadier; weather in England, frost continues.

San Francisco.

WHEAT.

	Buyer Dec	Jan.	May
Thursday, high st	1 26½	....	1 31½
" lowest	1 26½	....	1 30¾
Friday, highest	1 26¾	....	1 31⅜
" lowest	1 26⅜	....	1 31⅛
Saturday, highest	....	....	....
" lowest	....	....	....
Monday, highest	....	....	....
" lowest	....	....	....
Tuesday, highest	1 27½	....	1 32
" lowest	1 27½	....	1 31⅞

The following are to-day's recorded sales on Call:

Wheat - Morning—Informal: May—400 tons, $1.32; 100, $1.31⅞ per ctl. Regular Session: May - 800 tons, $1 32; 1500, $1.31⅞. Buyer December—300 tons, $1 27⅝, 200, $1 27½ per ctl. Afternoon; May 800 tons, $1.3 ⅞; 100, $1.31½ per ctl.

BARLEY.

	Dec.	Jan.	May
Thursday, highest	*78¾	....	81⅛
" lowest	....	....	81⅝
†Friday, highest	77½	79	82⅜
" lowest	77½	78½	82½
Saturday, highest	....	....	....
" lowest	....	....	....
Monday, highest	....	....	....
" lowest	....	....	...
Tuesday, highest	78½	....	83⅝
" lowest	78½	....	83

*Sample market.

†Spot brewing sold Friday for at 97½.

The following are to-day's recorded sales on Call:

Barley—Regular Session: May—100 tons, 82¾c; 500, 82⅝c; 300, 82½c; 200, 82⅜c per ctl. Afternoon: May—200 tons, 82c

Spot, season's storage paid -100 tons, 78¾c; 100, 78¼c per ctl.

Eastern Markets.

The following shows the closing prices per bushel of wheat for the past week at

New York.

Day.	Dec.	Jan.	March.	May.
Thursday	75½	75⅞	79¾	80¾
Friday	75¾	76	78½	8.½
Saturday	....	....	....	....
Monday	....	....	....	....
Tuesday	....	77⅛	79⅞	81⅞

The following is to-day's telegram—per bushel:

NEW YORK, Dec. 28.—Wheat—76¾c for January; 79⅝c for March; 81⅜c for May; and 83c for July.

Chicago.

Day.	Dec.	Jan.	May.	July
Thursday	7 ⅜	71¾	77⅞	75⅝
Friday	71⅜	71⅜	77⅞	75½
Saturday	....	....	....	....
Monday	....	....	....	....
Tuesday	72¼	....	78½	....

The following is to-day's telegram - per bushel:

CHICAGO, Dec. 28.—Wheat—77⅞c for May.

Markets by Telegraph.

Great Shortage in Pork.

CHICAGO, December 25.—The packing house business has reached a dullness not paralleled for many years. Five thousand men have been discharged and the plants of the big packers have been working less than half their capacity since December 1st. This unusual condition of things has been brought about by an unusual shortage in hog receipts, and unless the supply is speedily increased further reductions in the operating forces will be made necessary. The statistics for November show a shortage in hog receipts of 1,540,000 as compared with November, 1891. Chicago for the same period this year packed 780,000 against 1,470,000 last year.

The leading packers admit that there does not seem to be any hope of immediate relief, as the shortage is daily becoming greater. Some of them go so far as to assert that no relief can come until next spring's consignments of hogs are marketed. Usually at this time of the year the packing-houses are running to their full capacity, but now the remarkable scarcity of hogs and the big prices asked for stock in the market makes the packing of pork decidedly costly and unprofitable.

The shortage is attributed to various causes. Robert Strahorn, who has been in the business over thirty years, and who is amply qualified by experience to speak on the matter, said:

"The heavy spring rains played a prominent part in the matter. The continued wet weather killed off the spring crop of pigs that would have been marketable now. Then the low prices of the product early in the spring made the farmer careless, and instead of keeping their hogs as they usually do, until the holidays, they fattened them on corn early and sent them to market. There is and will be a demand for fresh pork here and a demand from Europe for pickled meats, taking all the receipts and leaving little for the packers to put in their own cellars."

California Products at Chicago.

CHICAGO, December 27.—California green fruits.—There is nothing on the market but Pears: they sell fairly as follows: Winter Neils, ⅌ box, $3; Easter Beurre, $2.50; Glout Morceau, $3.50 @ 4. Japanese Persimmons, trays, 14 @ 18⅌, 75c @ $1. California Oranges, Seedlings, ⅌ box, $2.50; Navels, $4.

Pitted California Dried Fruits—The market is ruling quiet and slow, for just at this season there is not much demand. The market, however, is steady for Prunes and Apricots owing to meager offerings, but Raisins are still plenty and dull, and Nectarines are slow, for the demand is never anything but tame for these. We quote: Raisins—London layers, 3-crown ⅌ box, $1 60; do 3-crown fancy, $1 75@1 85; loose Muscatels, 3-crown, $1@1 25; 4-crown, sks ⅌ ⅌, 4c@5c; 3-crown, 4@4½c; 2-crown, 3½@3¾c; seedless, sks, 4@4½c. Prunes—40 to 50 to the ⅌, in sacks, 14c; 50 to 60, 12½c; 60 to 70, 12c; 70 to 80, 11½c; 80 to 90, 11c; 90 to 100, 10½c; 100 to 120, 9¾c. Apricots—New, choice to fancy, sks, 15@16c; fair to good, 14@14½c. Peaches—Peeled; 25-⅌ boxes, 20@22c; peeled, sacks, 19@20c; unpeeled, 10c. Nectarines—red, sacks, ⅌ ⅌, 9@11½c; white; 10@12c.

Live Stock.

BEEF.		MUTTON.	
Stall fed	6½@	Wethers	6½@
Grass fed, extra	6½@	Ewes	6 @
First quality	5½@	Do Spring	7½@ 8
Second quality	4½@	HOGS.	
Third quality	4 @	Light, ⅌ ⅌, cents	5½@
Bulls and thin Cows	2 @	Medium	5½@
VEAL.		Heavy	5½@
Range, heavy	5 @6	Stock	5 @
Do light	6 @8	Feeders	5 @
Dairy	7½@8½	Stock Hogs	5½@
		Dressed	8 @ 8½

General Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

DECEMBER 28, 1892.

BEANS AND PEAS.		Do country m'ls	3 90 @ —
Bayo, ctl	2 40 @ 2 50	Superfine	2 50 @ 3 00
Butter	2 75 @ 3 00	NUTS—JOBBING.	
Pea	2 50 @ 2 75	Walnuts, hard shell, Cal. lb	6 @ 8
Red	2 50 @ 2 75	Do soft shell	8 @ 9½
Pink	2 00 @ 2 25	Do paper-shell	10 @ 12
Small White	2 60 @ 2 75	Almonds, soft sh'l	12 @ 13½
Large White	2 35 @ 2 50	Paper shell	13 @ 15
Lima	2 90 @ 3 00	Hard shell	6 @ —
Fid Peas, blk eye	1 10 @ 1 65	Brazil	10 @ —
Do green	2 00 @ 2 25	Pecans, small	8 @ 10
Split	4 50 @ 5 50	Do large	14 @ 16
BUTTER.		Peanuts	3½@ 4
Cal., poor to fair, lb	15 @ —	Filberts	10 @ 12
Do g'd to choice	22½@ 30	Hickory	7 @ 8
Do Giltedged	— @ 3½	Chestnuts	13 @ 14
Do Creamery	27½ @ —	ONIONS.	
Do do Giltedge	— @ 35	Silverskin	1 00 @ 1 10
Eastern, lad e	18½@ —	POTATOES.	
Cal. Pickled	20 @ —	River Reds	45 @ 55
Cal. Keg	20 @ —	Early Rose, ctl	65 @ 75
East'rn Cr am'y	24 @ 25	Peerless	80 @ 90
CHEESE.		Burbank Seed's	75 @ 85
Cal. choice cream	9½@ —	Do do Salinas	1 15 @ 1 25
Do fair to good	8 @ —	Do do Oregon	1 15 @ 1 25
Do Giltedged	— @ 12½	Sweet	50 @ 75
Do Skim	5 @ 6½	Extra choice sell for more money	
Young America	— @ 13½	POULTRY.	
EGGS.		Hens, doz	5 00 @ 6 00
Cal. "as is," doz	20 @ —	Roosters, old	5 00 @ 6 00
Do shaky	15 @ —	Do young	5 00 @ 5 50
Do candled	30 @ —	Broilers, small	2 00 @ 3 00
Do choice	32½@ —	Do large	3 00 @ 4 00
Do fresh laid	— @ 35	Fryers	3 50 @ 4 00
Do do s'led white	— @ 37½	Ducks	4 50 @ 5 00
Eastern cold-storage	25 @ —	Do large	5 50 @ 6 00
Do fresh	28½@ —	Do extra large	6 50 @ 7 00
Do selected	— @ 32½	Geese, pair	1 50 @ 2 25
Outside prices for selected large eggs and inside prices for mixed sizes—small eggs are hard to sell.		Turkeys, gobl'r	12 @ 17
FEED.		Turkeys, hens	12 @ 17
Bran, ton	13 00@ 14 00	Do dressed	12½@ 18
Feedmeal	25 00@ 26 00	All kinds of poultry, if poor or small, sell at less than quoted; if large and in good condition, they sell for more than quoted.	
Gr'd Barley	19 00@ 19 50		
Middlings	— @ 21 00		
Oil Cake Meal	— @ 35 00		
Manhattan Horse Food (Red Ball Brand) in 100-lb. Cabinets	— @ 8 00	Manhattan Egg Food (Red Ball Brand) in 100-lb. Cabinets	— @11 50
HAY.		GAME	
Compressed	7 00 @10 00	Quail, per doz	50 @ 75
Wheat, per ton	9 00@ —	Ducks	— @
Do choice	— @ 13 50	Do Mal'd ⅌ doz	3 00 @ 3 50
Wheat and oats	8 00@ 11 50	Do Sprig	2 00 @ 2 25
Wild Oats	7 00@ 9 00	Do Teal	1 50 @ —
Cultivated do	6 00@ 9 00	Do Widgeon	1 50 @ —
Barley	6 00@ 9 00	Do small	1 25 @ —
Alfalfa	8 00@ 10 50	Geese	3 00 @ —
Clover	8 00@ 10 00	Do gray ⅌ doz	2 00 @ 3 00
Straw, bale	35@ 50	Do White	1 00 @ 1 50
GRAIN, ETC.		Do Brant	1 25 @ 1 75
Barley, feed, ctl	77½@ 77½	Snipe	2 00 @ —
Do good	78¾@ — —	Do English, doz	1 50 @ 2 00
Do choice	80 @ — —	Do Jack, per doz	75 @ 1 25
Do brewing	90 @ 93	Hare, per doz	1 25 @ —
Do do choice	93¾@ — —	Rabbits, large	1 25 @ 1 50
Do do Giltedge	97½@ — —	Do small	1 00 @ 1 25
Do Chevalier	80 @ — —	PROVISIONS.	
Do do Giltedge	1 15 @ — —	Cal. bacon, heavy, per lb	12 @ —
Buckwheat	2 25 @ — —	Medium	12 @ —
Corn, white	1 07½@ 1 10	Light	14 @ —
Yellow, large	1 00 @ — —	Lard	10½@ 14
Do small	1 07½@ 1 10	Cal sm'k'd beef	11 @ —
Oats, milling	1 35 @ 1 37½	Hams, Cal salt'd	13½@ —
Feed, choice	1 37½@ — —	Do Eastern	15 @ —
Do good	1 30 @ — —	SEEDS.	
Do fair	1 25 @ — —	Alfalfa	9½@ 10
Do common	1 12½@ — —	Clover, Red	15 @ —
Surprise	1 40 @ — —	White	30 @ —
Black feed	1 05 @ 1 15	Flaxseed	2 25 @ —
Do seed	1 17½@ 1 30	Hemp	4½@ —
Gray	1 30 @ — —	Mustard, yellow	7 @ —
Rye	1 12½@ 1 17½	Do brown	4½@ —
*Wheat, milling Gi tedged	1 27½@ 1 37½	WOOL.	
Do choice	1 26¾@ — —	FALL, 1892.	
Do fair to good	1 25½@ — —	S Joaquin, plain	6½@ 10
Shipping, choice	1 26½@ — —	Do mountain	8 @ 11
Do good	1 25 @ — —	Do lamb	8 @ 10
Do fair	1 22½@ — —	Northern Choice	14 @ —
Common	1 20 @ — —	Do Defective	11 @ —
Sonora	1 20 @ 1 30	Do Lamb	10 @ 14
HOPS.		HONEY—1892 CROP.	
1892, fair	17 @ —	White comb, 2-lb frame	9½@ 12½
Good	18 @ —	Do do 1-lb frame	11½@ 14½
Choice	19 @ —	White extracted	7½@ —
FLOUR.		Amber do	6¾@ —
Extra, city mills	3 90 @ —	Dark do	6½@ —
		Beeswax, lb	23 @ 25

Dried Fruits.

The quotations given below are for average prices received by commission merchants for consignments by growers. Something very fancy fetches an advance on the highest quotations, while poor sells slightly below the lowest quotations. Prices, unless otherwise specified, are for fruit in sacks; add for 50-lb. boxes ¼c per lb. and for 25-lb. boxes ⅜ to 1c per lb.

APPLES—1892.		Do do fancy	— @16
Sun-dried, ¼'s	4½@ —	Evap., peeled, in boxes choice	18½@ —
Do sliced	4½@ 5	Do do fancy	20 @21
Evap. bl., rlcg, 50-lb. bx	8 @ 9	PLUMS—1892.	
Fancy, higher.		Pitted, sun-dried	10 @10½
APRICOTS—1892.		Do evap. boxes, choice	11 @12
Do bleached	15½@ —	Unpitted	4 @ 5
Do do fancy	15 @16	PRUNES—1892.	
Evap. choice, in boxes	15 @16	Cal. French, ungraded	7½@ 8
Do fancy, do	15½@17	Do graded, 60 to 100	9½@10
FIGS—1892.		Do do 40 to 60	11 @12
Sun-dried, black	4 @—6	Fancy sell for more money.	
Do white	3½@—	RAISINS—1892.	
GRAPES—1892.		London Layers, cluster per box	1 90 @2 00
Sun-dried, stemless	2½@ 3	Do choicest do	1 50 @1 60
Do unstemmed	1½@ 2	Do prime pr bx	1 25 @1 40
NECTARINES—1892.		Loose Muscatels, 2-crown, pr bx	75 @1 00
Red, sun-dried	7 @ 8	Do 3-crown do	1 10 @1 20
Do Evap., in boxes	11½@12	Do do do faced	1 20 @1 25
White, sun-dried	9½@11	Unstem'ed Muscatels in sks pr lb.	2½@ 3
Do evaporated	12½@13	Stem'ed 2-crown	2¾@ 3
PEARS—1892.		Stem'ed 3-crown	3½@ 4½
Sun-dried, quarters	2½@ 3	Sel'd'l'n M'sc'tl'l sks	4 @ 5
Do sliced	4 @ 5½	Do do in bxs	— @1 00
Evap., slic'd, in b'xes	7 @ 8	Do Sultanas, sks	6 @ 7
Unp'led, q'rt'd, bl'ch'd	5 @ 8	Do do bxs	— @1 40
PEACHES—1892.		Halves, quarters and eighths 25, 50 and 75 cents higher respectively than whole boxes.	
Sun-dried, unpeeled	7 @ 7½		
Do do prime, bl'ched	9 @10		
Do do choice, do	11 @11½		
Sun-dr., pl'd, bl'ched	10 @11		
Do do prime	14 @—		
Do do choice	— @15		

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on the quotations, while very poor grades sell less than the lower quotations.

DECEMBER 28, 1892.

Limes, Mex	3 00 @ 4 50	purposes sells at an advance on outside quotations	
Do Cal	— @ —	Beets, sk	— @ 75
Lemons, box	2 50 @ 3 00	Carrots, sk	30 @ 50
Do Sicily choice	5 50 @ 6 00	Okra, dry, lb	8 @ 10
Apples	35 @ 65	Parsnips, ctl	1 00 @1 50
Do Choice	75 @ 1 25	Poppers, dry, lb	7 @ 8
Do Extra choice	1 50 @ 1 75	Turnips, ctl	— @ 70
Grapes, pr bx	15 @ 85	Cabbage, 100 lbs	75 @ 80
Pears	25 @ 1 00	Garlic, ⅌ lb	1½@ 2½
do Winter Neils	1 00 @ 1 50	Mar'fat Squash, ⅌ ton	5 00 @10 00
Persimmons	50 @ 1 00	Cauliflower	75 @ 1 00
Oranges, pr bx-		Celery	50 @ 75
Navels, River'de	3 00 @ 3 50	Mushrooms, ⅌ lb	
Do, Butte Co	3 00 @ 3 50	Do, Common	8 @ 15
Seedl'g, River'de	2 00 @ 2 25	Do, Button	20 @ 25
Do, Fresno	2 00 @ 2 50	Tomatoes, box	1 00 @ 1 25
Do, Butte Co	2 00 @ 2 25		
Extra choice fruit for special			

The Science of Smelling.

Prof. De Volson Wood, of the Stevens' Institute Hoboken, N. J., contributes the following to *Science:* The greater part of the science of seeing is contained in the science of optics, and this is founded upon the theory of undulations of the ether and the way in which they are modified by the media through which they pass. The form of the surface, whether plane or curved, as well as the density of the medium, produces marked effects.

Similarly, the greater part of the science of hearing is contained in the science of acoustics, and this also treats of undulations, or waves propagated in air or other gases. It is not believed in either case that solid particles pass from a source to the sensitive nerves to produce the particular sensation.

Why should there not be a science of smelling? The principal part of such a science would consist of an investigation of the mechanical properties of odors, and might briefly be called "Odorology." Is it not highly probable that odors are also propagated by undulations of an ether? And yet we are familiar with the statements made by writers, such as "A grain of musk will keep a room scented for many years. During the whole of the time it must be slowly evaporating, giving out its particles to the currents of air to be wafted presently out of doors; yet in all this time the musk seems to lose but little of its weight." "The acute sense of smell of the dog is well-known; for he can detect the track of his master long after the tracks have been made, which shows that some slight characteristic matter is left at each footfall."

Those who thus speak impart the idea that odor is material. I prefer to think of it as a property of matter, which produces its own peculiar undulations; and that the sensation of odor is produced by these undulations in the olfactories. Musk retains this property for a very long time, while some bodies lose it rapidly. The man may leave some characteristic matter on the ground at each footstep, but it is not necessary that particles of that matter shall pass from the ground into the nose of the dog in order that he may track his master. It is only necessary that that matter shall possess the property of sending forth certain undulations. Indeed, it is not difficult to conceive that the ground itself has imparted to it the property of sending forth the desired undulations.

These facts being assumed, investigations might be made to determine the velocity with which odors are propagated, and whether they are subject to reflection, refraction, and interference, and other properties common to sound and light; also whether the different odors are due to different wave-lengths, and if the strength and intensity of the odor is due to the amplitude of the wave, as in light and sound. The physiological qualities of the olfactories by which they enable one to detect odors of different qualities and intensities, furnish a field for the most delicate and refined investigation.

WASTING TIMBER.—Eastern lumbermen visiting this coast express actual sorrow at the great waste evident here in the manufacture of lumber. In their own districts they have been for years reducing the amount of waste and utilizing the odds and ends. Comparing the amount wasted here with that in the East, they have no waste; still, they think they do, and are constantly devising plans to work up what is now wasted. An Eastern writer figures the loss from log to lumber in the white-pine mills from one-quarter to one half of its cubic contents. He says that in the California mills the waste is from 60 to 62 per cent. No figures are given for the mills of Oregon and Washington, but they are in it on the waste question, and must continue to be until a denser population calls for the small articles that can be manufactured from what is now thrown away.—West Coast Lumberman.

Facts Concerning Dynamite.

Very few people have a correct idea of what dynamite is, of what it is made, and the uses to which it is put. To the French belongs the honor of its discovery and its practical use. Nitroglycerin is the force of all high explosives. Dynamite is the name most usually given to these explosives, though other names are sometimes used.

Dynamite is simply nitroglycerin mixed with various ingredients. Nitroglycerin is made by mixing sulphuric and nitric acid with sweet glycerin, the same that is used by the ladies to prevent chapped hands. Mixing the acids and glycerine is where the danger lies in the making of nitroglycerin. The mixing tank, or agitator, as it is called by dynamite makers, is a large steel tank, filled inside with many coils of lead pipe, through which, while the mixing is in progress, a constant flow of ice water is maintained. This flow of ice water is used to keep the temperature of the mix below 85 degrees, as above that point it would explode, and a hole in the ground would mark where the factory had been. The nitroglycerin is stored in large earthenware tanks, which are usually sunk in the ground to guard against blows or severe concussion.

The other ingredients for making dynamite are: nitrate of soda, which is found only in Chili, carbonate of magnesia, and wood pulp. Dynamite is put in paper shells, usually one and quarter inches in diameter and eight inches in length, and weighs about one-half pound to each shell or cartridge. It has largely taken the place of black powder for blasting, as it is many hundreds of times stronger, and consequently more economical. It is used in mining all kinds of ores, coal and rock, submarine blasting and railroad-building. Without its aid many railroads, especially those crossing the Rocky mountains, could not have been constructed, and Hell Gate in New York Harbor could not have been destroyed.

Dynamite will not explode from any ordinary fall or jar; it will burn without explosion and freezes at 42 degrees, 10 degrees above ordinary freezing point. The bomb of the anarchist is made of metal or glass and filled with pure nitroglycerin, arranged so as to explode by severe contact with any hard object. These bombs are, of course, never made by a reputable dynamite factory. Five or six millions of dollars are invested in the manufacture of dynamite in the United States, and its use is constantly on the increase. The fumes of nitroglycerin produce intense headache, which can be cured by taking a very small dose of it internally.—Exchange.

DIVIDEND NOTICE

GERMAN SAVINGS AND LOAN SOCIETY, 526 California Street. For the half year ending Dec. 31, 1892, a dividend has been declared at the rate of five and one-tenth (5 1-10) per cent per annum on Term Deposits, and four and one-quarter (4 1-4) per cent per annum on Ordinary Deposits, payable on and after Tuesday, Jan 3, 1893.

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No. 20D—10	"	"	20	" "
No. 24D—12	"	"	20	" "

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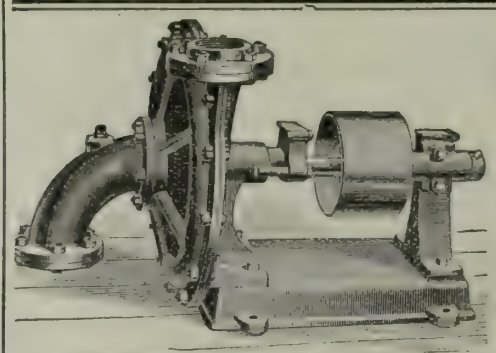

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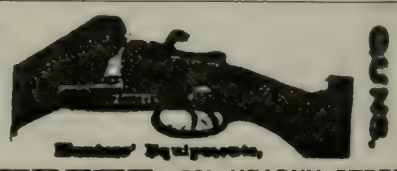

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Cholera and Ozone.

The fact that electricity enables ozone to be generated cheaply and on a large scale, says the *Electrical World*, may have a most important bearing in the future as a sanitary measure, more particularly, however, in relation to cholera epidemics. That some connection exists between the spread of cholera and the scarcity of ozone in the atmosphere there appears to be little doubt, from observations begun as early as 1884 and continued ever since. There is a normal amount of ozone in the atmosphere, and it appears from these observations that at places where the cholera existed the amount of ozone in the atmosphere was below this normal, sometimes even to a very marked degree. Moreover, an increase in the epidemic in certain localities seemed to go hand in hand with a diminution of the amount of ozone in the air. During the early part of the 1884 epidemic in Paris and Marseilles the quantity of ozone in the air was found to be decidedly below the normal. This itself would point to some connection between the two, but an additional fact of great importance is that tests made at the same time in other places which were free from the epidemic showed the presence of a normal amount of ozone. Tests made since by numerous observers appear to have confirmed this coincidence. The fact that some relation may exist between the two would not be surprising, as cholera, we believe, is now recognized as a germ disease, and ozone is well known to be a very effective germicide. It is, moreover, an excellent means to use, because if properly made it is not in the least injurious to human beings. When made by chemical processes or from oxygen, it may be injurious, but this is owing to impurities or to the presence of untransformed oxygen. If, however, it is made of air ozonized by means of electricity it has been found to be quite uninjurious. Mr. P. de Puyt recently made some very interesting and instructive compilations regarding this matter, and urges very strongly the use of ozonized air, not only as a destroyer of germs in hospitals, lazarettos, schools, public houses, and other places, but also as a preventive in the case of a threatened epidemic. Eleven to twelve centigrammes per litre of air, which is easily produced by electrical means, and was formerly claimed to be a dangerously large quantity, he says has been found to be perfectly harmless even for infants, if made by electrical means. He also compiled the following interesting figures: During the month of July, 1884, while the cholera epidemic was at its worst in Marseilles, the mean quantity of ozone in the air was .86 as compared to 2.17 during 1883. In Paris even greater difference was found. During the maximum period of the epidemic in November, 1884, it was .44 as compared to 1.82 for the same period in 1883. Moreover, during the two weeks when the mortality was greatest the amount of ozone in the air was as low as .27 as compared to 2.0 for the same period in 1883. Furthermore, during several days when the air was charged electrically, more than was usual, the epidemic was found to diminish in its severity. Such coincidences are certainly very striking and warrant the most careful attention and study on the part of physicians and boards of health. There is time now before the threatened cholera epidemic in this country next summer to institute experiments and make preparation.

SPONTANEOUS COMBUSTION. — Among the results brought to light through chemical investigations of the sources of spontaneous combustion, says the *United States Miller*, is the fact that sawdust should never be used to collect drippings or leakages. Dry vegetable or animal oil is found to inevitably take fire when saturating cotton waste at 180 degrees Fahrenheit, and spontaneous combustion occurs more quickly when the cotton is soaked with its own weight of oil. Danger is involved in patent "driers," from leakage into sawdust, etc.; oily waste of any kind, or waste cloths of silk or cotton, saturated with oil, varnish or turpentine, also linseed-oil drippings into a sponge; glycerin or oil of any kind leaking into sawdust; bituminous coal in large heaps of pit coal, hastened by wet, and especially when pyrites are present in the coal—the larger, the greater the liability. Oil on flour, or water on flour, is productive of spontaneous combustion. In fact, all organic structures, being largely composed of carbon and hydrogen, are readily excited, because of the affinity of the hydrogen for oxygen.

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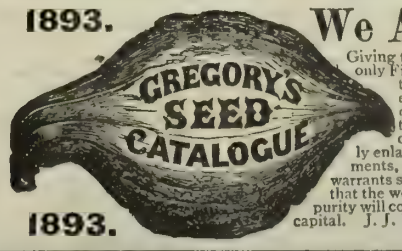

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